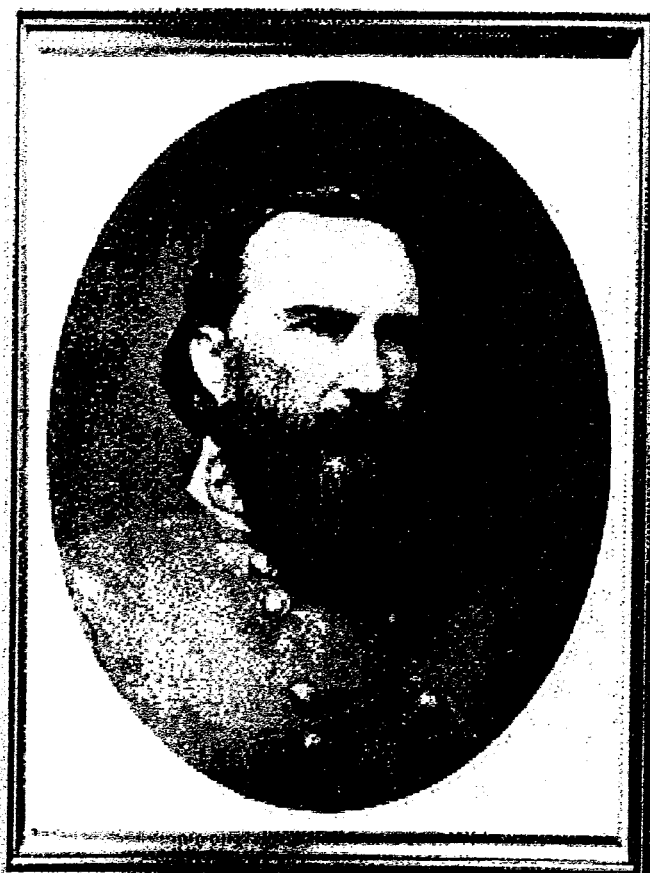


**SAFETY REGULATIONS GOVERNING**  
**LONGSTREET'S CORPS**  
*And its associated branches*



# *Longstreet's Corps Weapons Safety Policies*

*By order of: Gen. James Maupin, Commander, Longstreet's Corps*

***Mission:** To ensure the safety of all reenactors and spectators during any event, which the Longstreet Corps is a participant of.*

*The safety procedures herein are to be followed unless authorization by the Commanding Officer in Charge of the Longstreet's Corps is granted.*

*Safety is the responsibility of **EVERYONE**. If an unsafe act is witnessed it must be stopped and brought to the immediate attention of the offending party and reported to the attention of the next highest ranking man in charge. Appropriate action will be taken to correct the person responsible for the unsafe act. The commanding officer of the soldier committing the unsafe act will deem appropriate punishment or training to ensure the unsafe act will not happen again.*

# *Safety Procedures for Men of Arms in Longstreet's Corps.*

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### Infantry inspection of Rifles/Muskets.

*These procedures are to be used for the inspection of weapons, of the individual "field companies" of Longstreet's Corps and its affiliate battalions.*

*1. The inspecting officers will be designated from each "field company" by the Battalion Ordinance Officer or Senior member of the Staff, and assigned to inspect the weapons of a separate field company of the battalion. The inspector will consist of a "field company" commander and any officer or sergeants that he elects to assist him during the weapons inspection. Every soldier that is to carry a weapon in the field must be inspected. The inspecting field company commander and his designates will be solely responsible for carrying out the weapons inspections in the following manner.*

*2. All rifles/muskets will be handed to the inspecting officer or sergeant as described in "Gilliam's Manual for Volunteers and Militia" page 108 "Inspection of Arms". All company commanders should make every effort to have their men conform to these general rules.*

*3. It is suggested that all rifles/muskets are "wormed" before inspection.*

*4. Upon receiving the weapon the inspecting officer or sergeant will immediately begin to visually check for any missing or damaged parts on the weapon. These can consist of screws, barrel bands, nose cap, butt plate, broken or damaged hammers and nipples or any cracks to the lock plate or barrel. Splits, cracks, or pieces of wood missing from the stock should be noted. Any damage, which is deemed to affect the integrity of the weapon such that it may hinder the weapon's safe use must be noted, and the weapon rejected for use in the field.*

*5. The inspecting officer will pull back the hammer to the half-cock position and squeeze the trigger, checking to see that the hammer does not fire. He will then pull the hammer to the full cock position, feeling that the hammer locks into the fire position. He will then squeeze the trigger, feeling if the trigger pull is not too weak. All the while keeping his thumb on the hammer as he pulls the trigger and lets the hammer gently rest on the nipple. No inspector will strike the back of the hammer to test its holding of the half-cock position.*

*6. The barrel must have its ramrod "sprung" at least once or twice. It must resound with a hard metallic sound or ring. If the sound is flat or muffled and dull the barrel could be contaminated with debris. If this occurs the inspecting officer will "spring" the rammer again. The Inspecting Officer will use the ramrod to "scrape" along the base of the bore to detect for a build up ring of metal from live firing. Evidence of such build up will cause the rifle/musket to be rejected until the build up is extracted. The rammer should be withdrawn and the end inspected for grit, cloth, or any other fragments that may be left in the barrel. The inspecting officer should rub this material between his fingertips. If grit is felt or fibers from cloth detected, then the weapon should be rejected. The weapon should be cleaned and reinspected before the soldier is allowed to use it in the field. Any barrel inspection that reveals any evidence of metal should be immediately rejected and not be allowed for field use under any circumstances!!! If oil or water is predominately noticed the weapon can pass on the judgment of the inspecting officer. The barrel should be swabbed out with a dry patch to prevent a hang fire.*

*7. During the weapons inspection the inspecting officer is required to inspect all cartridge boxes and their contents. All soldiers must have their cartridges and caps in a regulation cartridge box and cap pouch. Loose cartridges or caps will not be allowed to be carried on anyone's person!!*

8. All cartridges must be wrapped in paper and closed secure with string, or twisted or folded. Staples, glue, or tape will not be allowed!! Plastic quick load containers or any container not made of paper will not be allowed. All cartridge containers must be disposable.

9. Powder charges in cartridges should fall between 40-70 grains of powder. Gilham's manual field states "70 grains of powder as the standard for rifled muskets i.e. Enfields and Springfields. This amount is based on a weaker form of powder produced during the war years and not the contemporary concentrated powders of today. The charge that the corps recommends is between 60-70 grains. The inspecting officer should try to observe any unusually large or thick cartridges and have them culled from the cartridge box.

10. Only FFG or FFFg black powder should be used in the making of rifle cartridges. Modern enhanced or smokeless powder will not be used to make cartridge, due to higher explosive pressures and the dangers of a barrel rupture. These powders can have a very damaging effect on the barrel.

11. Any extra cartridges or caps that are to be carried into the field must be held in a proper container or period wrapped bundle and carried in the haversack. A soldier should make his field company commander or 1<sup>st</sup> Sergeant aware of this extra ammunition and have these inspected. The field company commander or 1<sup>st</sup> Sergeant must inspect and observe that the soldier has complied with the rules for proper storage of extra ammunition. The field company commander will be fully responsible for any extra cartridges and caps that are not secured in the cartridge box or cap pouch.

12. All soldiers should be at attention during the inspection. They should not be allowed to smoke, eat, or leave ranks during the inspection process.

13. All accoutrements and bayonets should be clean and well maintained and in proper order.

14. The inspecting officer will proceed down the ranks and direct each soldier to fire one cap in to the ground in front of him. The inspector will see if any debris is expelled from the barrel. The inspector will make sure that the discharge will "move the grass" and that the barrel is clear. The command to load and fire a full black powder charge can only be conveyed at the instruction of the commanding officer or designated staff officer. This rule is in effect at all times, when the men are under arms.

15. Any soldier failing the weapons inspection will have the failing weapon's model and serial number noted along with his name, rank, and field company number and parent unit designation recorded by the inspecting officer along with the infraction. The soldier will then be given a remedy to correct the infraction. This written information will be given to the Adjutant or Ordnance Officer at the completion of the inspection.

16. The field company commander or the battalion ordnance officer must reinspect the failed weapon. The weapon that failed the inspection will not be allowed to be used in the field until the infraction is remedied and a reinspection conducted. Notification of passing or failure of the reinspection will be reported in writing to the Adjutant or the Ordnance Officer with the corrections made to remedy the infraction.

17. The Battalion Ordnance Officer will keep all infractions on record.

### The Pistol Inspection

1. All soldiers under the rank of Second Lieutenant will not be allowed to carry a pistol. If a special duty situation arises then the Battalion Ordnance Officer, Senior Staff Officer, or Battalion Commander must approve the carrying of the pistol. Separate rules for carrying a pistol are in effect for the Cavalry or Artillery and will be explained in their appropriate sections.
2. All field company and battalion staff officers that carry pistols will be responsible for the inspection of their pistols by an inspection officer or the Ordnance Officer prior to loading.
3. All pistols will be inspected to include any spare cylinders and back up pistols.
4. The inspecting officer will observe the cylinder and check the nipples. Bore butter or cream of wheat is recommended for use as wadding. All barrels of the cylinder must be properly greased to prevent the chance of a chain-fire. No "wonder wads" will be used as wadding.
5. The barrel will be inspected to make sure it is clean and clear.
6. The inspecting officer will visually look for cracks or damage to the frame, barrel, or nipples.
7. At the discretion of the inspecting officer. He may breakdown the pistol to view the cylinder more closely.
8. When the inspecting officer has finished the inspection he will return the pistol to the officer.
9. Once all of the elements of the inspection have been completed the field officer is allowed to carry the passed pistol into the field.
10. If any field officer fails the pistol inspection he will be given a suggestion to remedy the problem. The pistol cannot be loaded and used if it has failed during inspection. He may carry the pistol unloaded, in his holster but never draw the weapon for any reason while in the field. The man in possession of a failed pistol will have the type and serial number of the pistol noted along with his name, rank, and field company number and unit designation noted and the written information conveyed to the Adjutant of the Battalion Ordnance Officer.
11. Any field company officer failing inspection and desiring to carry a loaded pistol in the field will need to be inspected again by the same officer who found the infraction.
12. Any field company officer that states he will not take the field with a loaded pistol during pistol inspection will not be allowed to load that same pistol and carry it in the field without being inspected. If he desires to carry a loaded pistol he must present it for inspection.

## General Safety Rules for Infantry

1. No one under the age of 16 years will be allowed to carry a weapon.
2. Weapons will not be fired in camp unless on order of authorized officer or NCO.
3. Weapons will not be discharged at a target inside the range of 25 yards.
4. Fouled rifles/muskets will be taken to the rear of the line of file with a NCO to clear the weapon.
5. Never fire your weapon within 25 feet of an artillery piece or position. No one will fire over the artillery limber or ammo chest.
6. Capping of loaded rifles/muskets will be on command **ONLY**.
7. Weapons will **NOT** be fired while in the camp area unless on order of authorized officers.
8. No bayonets or knives will be drawn during an engagement.
9. Try to never allow the opening of the muzzle to touch or "dig in" to the ground. If you suspect dirt, sand or other debris has gotten into your barrel do not reload. You must let the Ordnance Sergeant or designated NCO clear the weapon behind the line of file.
10. Always keep the hammer at the half cocked on ~~an uncapped nipple~~ <sup>A LOADED WEAPON</sup> when moving with a loaded weapon, and keep the muzzle elevated. Never move with a loaded and capped weapon unless ordered. **WEAPONS WILL BE KEPT AT THE HALF-COCKED UNTIL THE READY COMMAND IS GIVEN.**
11. Never pull the trigger until you have looked along the barrel to see where the weapon is aimed.
12. At the conclusion of "live" firing in the field prior to return to camp, **ALL WEAPONS** will be primed and discharged on command to insure that no unburned powder remains in the firing chambers.
13. Ramrods **WILL NOT** be drawn on the battlefield. Only the file closer or a designated sergeant may draw a ramrod to check or clear a weapon on the field.
14. Never load cartridges near an open flame.



15. *Always be aware of the situation around you and be sure you and your fellow reenactors communicate when on the field. "Look out fer yer pard."*
16. *Store all cartridges and caps in their proper containers. Keep them out of sight and away from children.*
17. *Never leave your weapon, cartridges, or caps exposed and unattended.*
18. *All field company officers must be certain that all of their men are proficient in the techniques of loading and firing their weapons in accordance with Gilham's Manual.*
19. *When in camp always make sure your weapon is secure when it is not in use.*
20. **NEVER** *allow a spectator or civilian to fire your weapon.*
21. *Never modify your weapon in such a way as that it would affect the performance of the weapon.*
22. *The field company commander will instruct his company to **not take tompons into the field to any Corps assembly.** All tompons must be left in the camp and only used in camp. Inspecting officers will confiscate any tompons that they encounter during the weapons inspection. The tompons will be returned to the soldier when the battalion returns from the field. Exceptions may be granted by the Commanding Officer should incimate weather dictate.*
23. *Always be aware of the situation around you and be alert for any unsafe acts. If you see an unsafe act it is your duty to prevent it and report the violation to your superior. A second of caution can prevent a lifetime of pain.*
24. *Proper maintenance and cleaning of your equipment will prevent many accidents. Always keep your equipment in good working order and you will be able to enjoy an injury free event.*

*Safety Regulations for the  
Cavalry of Longstreet's Corps*



## **Introduction**

*The Cavalry Trooper is the most heavily armed combatant known to the Army. He also has to be the most safety conscious. The Trooper has to not only be safe, but so does his weapons.*

*The Cavalry carries an assortment of muskets, carbines, rifles and pistols. Each type of weapon has rules governing the inspection of each one, but not a set safety requirement. The Inspections of weapons within a Cavalry Company is the sole responsibility of the Commanding Officer and he should have a working understanding of each weapon within his command.*

## **Description of Firearms common to Cavalry**

### **Pistols:**

*The variation of pistols are as numerous as rifles. Colts and Remingtons dominate the battlefield as they did during the War Between the States.*

*With the exception of the LaMatt and the Harpers Ferry pistols, most all others were 6 shot single action revolvers.*

*Most all Cavalry personnel carried a pistol and sometimes two or three. So to see a Confederate Cavalryman with two pistols is/or was, normal.*

### **Muskets:**

*There were several types of these muzzle-loading weapons about the battlefield. The most common was the Cook and Brother and Enfield Musketoon. The enterprising young Confederate Cavalryman would carry almost any type of rifle that worked best for him. He was known for sawing off the extra barrel length of an Infantry Rifle and making it into a Cavalry friendly weapon.*

### **Rifles and Carbines:**

*There is a wide assortment of Carbines and Rifles that is organic to the Cavalry. Each one has a different Manual of Arms Inspection that is the responsibility of the Company Commanders to know and understand.*

*They come in breach loader and magazine fed. The most common of the breach loaders are the Sharps and Smith carbines. The most common magazine fed rifle is the Henry rifle. The Henry is the forefather of the modern Winchester lever action rifle. It loads underneath, and levers to pull the hammer to the rear, open the action, extract a spent cartridge, and chamber the next cartridge for the next shot. Most were 15 round capable in .44 caliber.*

*The most uncommon magazine fed weapon, for reenacting, is the Spencer. It too is a lever action weapon that works off the same principle as the Henry. The difference with the Spencer is that it was only a 7 shot, tube fed weapon, from the butt of the rifle, but was a massive .56 caliber bullet. In Jan. 1863 the Spencer went into action and later became one of the most sought after weapons during the war.*

***Shotguns:***

*The reenacting community for past safety mistakes has frowned upon the use of shotguns. In my opinion, the use of shotguns, by Cavalry personnel, is historically correct and should be considered a standard weapon if so desired by the individual combatant. The Shotgun works exactly like the Infantry's smoothbore .69 caliber musket, only it has two barrels. It has been a long-standing fact that more people are injured with rifles than have been by shotguns.*

## **Inspection of Firearms**

### **Pistols:**

*The pistol should be inspected once. The inspection should take place during the primary inspection of rifles and carbines, the pistol will be loaded, but not primed. After the inspection, the pistol will then be primed and holstered.*

*The pistol will be drawn, by the left hand, carried to the height of the breast, muzzle elevated, half cocked by the right hand. It will be seized by the right hand, dropping the left hand down to your side. The pistol will then be held vertical by the thumb and fingers at belt level, centered on the body. The butt and trigger guard will be facing the left. (As written in Cook's Cavalry Tactics.)*

*The I.O. will visually check each chamber to ensure that the weapon is clean and functional, then lower the hammer back down. The IO will then insert a wooden rod down the barrel, making sure there is nothing blocking or clogging it. After the rod is removed, the IO will inspect the loading lever for functioning.*

*Upon completion of the I.O.S. inspection, the IO will then hand the pistol back in the manner that it was taken. After the IO steps to the left and away from the Trooper, the Trooper will then return the pistol to its' holster and secure it.*

### **Muskets and Shotguns:**

*The Muskets and Shotguns should be seized and carried to the front, barrels outward to the front and rammer toward the person being inspected, and center. The rammer then removed and inserted into the barrel. The weapon then should be taken to Shoulder Arms and held in place until the Inspecting Officer seizes the weapon for its' inspection.*

*The Inspector will pull the weapon to half cock and squeeze the trigger. The Inspector should not put an enormous amount of pressure on the trigger, in this inspection, because Inspectors, that wanted to be over zealous in their duties, have broken functioning weapons. The Inspector should use common sense, know the weapon he is inspecting and the full serviceability of those weapons.*

*After inspecting the half cock position, the hammer should be taken to full cock, holding pressure on the hammer, then pull the trigger, releasing the hammer to ease it back upon the firing cone (nipple). The weapon, at this point, should be jostled in an up and down motion to hear the rammer "ting" against the bolster plug, at the rear of the barrel.*

*The IO, being satisfied with the inspection of that weapon, will then proceed to the next person.*

*The person that had just been inspected will wait until the inspector has passed him, by two files, then will seize the inspected weapon, carry it back to the front, barrel to the front. The rammer will then be removed and inserted into its' slot under the barrel, then carried back to Order Arms.*

***Sharps Carbines:***

*The Sharps will be carried to the position of Port Arms, the hammer taken to half cock, the block release lever dropped causing the block to drop down, opening the action for the Inspector. Then the rifle will be taken to Shoulder Arms and held in-place until the Inspecting Officer steps up to inspect it.*

*The inspector will seize the weapon, attempt to lightly pull the trigger at half cock, look down the barrel, and try the weapon at full cock. An Inspector should never dry-fire ANY weapon. It can and has caused damages to the weapons being inspected.*

*The weapon is then returned to the Trooper, who again will wait until the inspector has passed by two files before closing the actions to the Sharps and taking it to Order Arms.*

***Smith Carbines:***

*The Smith will be carried up to the Port Arms position, barrel released, causing the barrel to break in a downward motion. The weapon once opened, will be carried to the left hand, butt forward, barrel pointing down between the left arm and left hip and held in-place until the Inspector steps up to inspect it.*

*Again, the inspector will visually check the weapon in the same manner as he would the Sharps.*

*Upon completion of the inspection, the weapon will be returned to the left hand of the person being inspected.*

*Again, the Trooper should wait until the inspector has passed by two files before closing the action and bringing the Smith to Order Arms.*

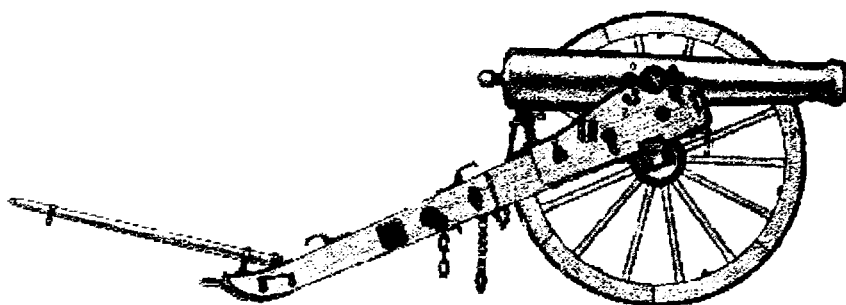
***Henry Rifles and Spencer Carbines:***

*These weapons should be opened, loading levers down, actions open and carried to the Shoulder Arms.*

*The Inspector should seize the weapon and examine it carefully, as this time the inspector may have to look down the barrel to ensure that the barrels are clear of any harmful debris and that the loading and firing mechanisms are working properly.*

*The weapons will be handed back to the Trooper who will then wait until the Inspector has passed by two files, then close the actions on the weapons and carry them to Order Arms.*

*Safety Regulations for the  
Artillery of Longstreet's Corps*







## *Longstreet's Corps Artillery Regulations*

### *Artillery Piece*

*All guns and limber must be original or reproduction full-scale field artillery pieces. They must have proper size wheels, limber chest, and equipment. All parts and equipment are to be free of rot, rust, and in good working order. General overall appearance of the gun and crew must be acceptable by the commanding officer. Mountain Howitzers and Mortars will not be allowed unless approved by the Commanding Officer.*

### *Artillery Drill*

*National Civil War Artillery Association Drill will be followed.*

### *Artillery Rounds*

*Rounds should be rolled before you arrive at the event. Do not roll rounds at the event site. All rounds must be triple-wrapped using only aluminum foil. The powder charge should be 3 ounces of powder for each inch of bore. No flower, cornmeal, sawdust, or any other wadding is to be used in the rounds. No blasting powder is to be used; only Goex cannon grade or F1 powder. No fuses or linstocks, only friction primers should be used to ignite the powder charge.*

### *Age*

*No one under eighteen years old will be at positions 1-4 or gunner, unless approved by the Artillery Commanding Officer. Fourteen and older may man positions 5 & 6. Absolutely no child under fourteen will be on any position of the cannon crew.*

### *Sidearms*

*No one on a cannon crew will have sidearms or long knives unless permission is granted by the Artillery Commanding Officer. Sidearms should only be carried by Officers who are not on a cannon crew. ( Battery Commanders, Battalion Commander ) If the battle scenario requires artillery to fight, weapons will be hidden away from the cannon and ammunition boxes.*

## ***Safety Regulations and Procedures for Muzzle-loading Artillery***

### ***General Information***

*The following safe shooting procedure presumes the crew is firing blank charges or projectiles with a muzzle-loading artillery piece made (or Altered ) to modern safety standards. ( If firing blanks skip Step VII and see Safety Rule 10.) The bore should be lined with seamless steel tubing with a minimum 3/8 – inch wall thickness and yield strength of 85,000 p.s.i. or greater. The breech plug should be threaded and pinned, welded and pinned breech plugs can be equally strong but require expert installation by competent manufactures. Sand-cored bores are not recommended for shooting. The vent should be drilled in a threaded copper bolt similar to original cannon vent liners of the 1840 – 1865 period in order to provide an unbroken passage through the casting and the liner into the bore.*

### ***Safety Zone***

*Establish a 50 – foot wide safety zone between the spectators and the gun. No one is to be forward of the muzzle at any time. Only crew members or authorized personnel are to be in this zone.*

### ***Equipment Required***

*Two men minimum. Ammunition box with a self-closing lid restricted to opening at no greater than an 80-degree angle. Vent brush or cleaning device, Vent pick, Thumb-stall, Heavy welder's gloves, leather materials, Rammer, Wet sponge, Dry sponge, Worm, Water bucket, Primers, Stopwatch, Gimlet, Individual safety containers for powder charges, and a high intensity flashlight are required.*

### ***Ten – Step Standard Procedure***

#### ***1. Clean the Vent***

*Use a .22 caliber or appropriately sized bronze cleaning brush on a suitable rod and brush the entire vent twice. If no brush is available, the alternative method is to run the ramming pick or gimlet up and down the vent twice, twisting it to make sure the vent is completely free of powder bag remnants.*

## **2. Stop the Vent**

Seal the vent with thumb pressure during the entire cleaning and loading procedure. This means no air should escape the vent from the time the worm enters the muzzle until the rammer is removed after the projectile has been seated. Use a leather thumb-stall or heavy leather glove to protect the thumb and make a tight seal.

## **3. Worm the Bore**

Using a tool with sharp steel points, which replicates an original cannon-cleaning worm, worm the bore twice. Give two complete turns of the worm at the breech each time to pick up any powder container remnants and to loosen any powder residue. The worm should fit closely so the points will pick up debris easily.

## **4. Wet Sponge the Bore**

Sponge with a wet (but not sopping) tight fitting sponge with a head of lamb's wool or wool carpeting over a wooden cylinder affixed to a shaft at least one foot longer than the bore. The end of the sponge head should conform to the shape of the breech plug, hemispherical or flat. Seat the sponge against the breech with hand pressure and give two full rotations of the shaft. Withdraw the sponge half-length, twist, then reseal against the breech and give another two full rotations.

Remove the sponge. If any powder container remnants or unburned powder come out with the sponge, repeat the entire process, starting with Step 3.

## **5. Dry Sponge the Bore**

After wet sponging, the same procedure is used with the dry sponge. The dry sponge is cleaned and dried off periodically with an absorbent towel-type rag. (The purpose of the dry sponge is to remove excess moisture from the bore; if water is left in the bore it may cause incomplete burning of the next powder charge, leaving dangerously glowing residue.) Check to see if the bore is clean, using a high intensity flashlight. If it is not clean, repeat Step 1.

## **6. Load Powder**

Use a crooked shaft U-shaped rammer if available. If not, use a plain wooden pole without a head or a pole with a smoothly tapered head (made like a U.S. Model 1841 "Mississippi Rifle" ramrod) so that it might force the hand open should a premature ignition occur. Mark the rammer in advance in two places, one to show the amount of shaft which should be left sticking out of the muzzle when the charge is fully seated and the second mark to show when the projectile is seated.

The ammunition chest should be located 25 ft. behind the gun and 25-ft. forward of the spectator. (**Spectators Smoke!** Watch out for them.) Powder charges should be prepared in advance wrapped in heavy-duty aluminum, as specified by the Corps Safety Rules guide lines. Each charge should be kept in an individual safety container within the chest. (Fi-

*berboard military shell cases or fuse cans or similar tightly sealed containers are recommended.*

)  
*Open the chest only long enough to remove one safety container and transfer it to the leather haversack, (Do not open ammo chest following warning that a gun is about to fire until 10 seconds after that gun has been discharged. This is to prevent hot debris from falling into the ammo chest.)*

*Carry container within leather haversack to the gun. Do not proceed to load unless three minutes has elapsed since the gun was last fired (even though the cleaning procedure has been completed). Use the stopwatch.*

*Open safety container, remove foil – wrapped charge and place it in the muzzle with one hand while wearing heavy leather welding gloves, hot stove or foundry worker's gloves.*

*Wearing the heavy gloves, stand to the side of the barrel with as much of your body as possible behind the plane of the muzzle. Grasp the rammer underhand, with one hand, thumb to the side and seat the charge lightly with a smooth, short strokes. Do not pound the rammer against the charge.*

*Immediately upon feeling the charge reach the breech, drop your hand away, releasing the rammer. After ten seconds and after ascertaining that the charge is fully home, using the rammer marks as your guide, remove the rammer with one hand, underhanded and thumb to the side. This may require grasping and releasing the shaft a few times. At no time should more of the body than absolutely necessary be forward of the muzzle face and never in front of it. **Never have two hands on the rammer.***

### **7. Load the Projectile**

*The projectile loading procedure is the same as that for powder. The rammer is operated with short strokes, one hand, underhand, thumb to the side, until the mark on the rammer shows the projectile has been fully seated.*

*As with all muzzleloaders, to avoid bursting the barrel it is essential there is no air gap between powder charge and projectile when the gun is fired.*

*When the rammer is removed, after the projectile is seated the vent may be released.*

### **8. Pick the Charge**

*To insure ignition, pick the powder charge wrapper through the vent with a pick or gimlet held by the shaft, with glove protected fingers.*

*The pick should not be so long that it reaches the bottom of the bore when fully seated, thus preventing making pits under the vent.*

### **9. Prime**

*Priming the vent depends on the type of ignition to be used. Typical systems are : linstock and priming powder, fuse, priming quills, friction primers, .22 blank, and percussion cap.*

*If priming powder is used, prime from an open – topped container constructed to hold just*

enough 4F or 3F powder to fill the vent. The priming device should have a handle so that the hand is never over the vent when pouring the loose powder. (A .38 or .45 cartridge case soldered to a twisted wire handle works well.) Priming will not be done directly from powder horns or flasks.

When using fuse, prig quills, friction primers, percussion caps or .22 blanks, hot debris is apt to be blown out the vent on discharge. Crewmembers should wear hats for protection, spectators must be kept at a safe distance, and all ammunition chests closed whenever any gun is firing. Caution: fuse is often a source of misfires and ignition delay which may provide an opportunity for children, pets, photographers, or others not in the gun crew to advance within the safety zone. Instant types of ignition are highly recommended.

### **10. Fire the Gun**

A. The man designated to ignite the charge (No. 4 man in Civil War period Drill) calls out "Ready to Fire" in a loud voice to alert other crews on the line that a gun is about to fire and to notify the gun Captain that the piece is primed. At this call, any open ammunition chests are immediately closed. The gun Captain makes a quick visual inspection of the range forward of the muzzle to make sure **NO ONE** is in danger and then commands "Fire". The primer is then ignited.

If the lanyard is used to ignite friction primers, or to activate a lock using percussion caps or blank cartridge, it also should be long enough to allow the cannoneer to stand outside the wheels and out of the way of recoil.

Start your stopwatch to be sure at least three minutes elapses before powder is reloaded.

### **MISFIRES**

If the primer ignites, but the gun fails to fire:

Command: "Do not advance, the primer has failed." Start stopwatch, wait three minutes.

When three minutes have elapsed, step inside the wheel from the front of the axle so you will be out of the recoil path should the gun discharge unexpectedly. **DO NOT** get in front of the muzzle at any time.

Wearing gloves, use gimlet to clear the vent. Grasp by shaft only, keeping head away from vent. When vent is clear, re-prime and fire.

If three attempts fail to fire the gun, use a CO2 fire extinguisher (with horn removed) to blow down vent with water and worm after soaking.

### **BASIC SAFETY REGULATIONS**

Maximum blank powder charges for properly constructed guns of 3 inch bore or larger should not exceed 2 oz. of Fg grade or 3 oz. of Cannon Grade Goex black powder per inch of bore diameter. Maximum powder charge for bore of more than 2 inches and less than 3 inches should not exceed a total of 3 oz. Fg or 4 oz. Cannon Grade Goex.

Prepare powder charges in advance using heavy – duty aluminum foil ( six layers total ). Alu-

minum foil wormed out after firing often yields unburned powder although this may appear impossible to those with smaller caliber guns.

All crewmembers should wear ear protection devices.

No one should cross in front of the muzzle at any time during the cleaning, loading or firing procedure.

The ammunition box shall be located 25 ft. behind the gun and attended at all times or locked. The interior shall be lined with a non – sparking material and the box itself shall be stoutly constructed of wood or metal.

**NO smoking at any time within the safety zone of 35 - 50 feet.**

When blank firing no wadding should be used nor should be necessary to create a realistic report.

### **Eight Key Points for Safe Shooting**

Always allow three minutes between firing and reloading next powder charge.

Use black powder only and constantly inspect your gun tube for signs of stress.

Maintain the 50-foot safety zone with a rope, string, or other marker.

Walk, Do not run and work at a smooth pace. Be aware of what you are doing and careful to perform your gun duties as prescribed by the School of the Piece guidelines.

Train your crew. Run through a dry fire evolution at least twice before commencing operations with live charges.

Be sure each crewmember has knowledge of all procedures and safety regulations.

Have the No. 1 man (rammer) repeat the step instructions, as they are called out by the gun commander (or No. 3 man, tending the vent). This serves as a procedural check so that none of the ten steps are omitted by error. **Memorize this sequence: 1. Clean Vent, 2. Stop Vent, 3.**

**Worm, 4. Sponge, 5. Dry Sponge, 6. Load Powder, 7. Load Projectile, 8. Pick Charge, 9. Prime, 10. FIRE.**

Use good common sense. If something is done wrong, **STOP**. Think it through. Then act to correct it. The stop and think approach gives more opportunity to avoid accidents, **DO NOT use the press onward out of sequence method. SAFETY FIRST!!!!**

**WARNING:** Loading and firing antique or replica muzzle loading cannon is a highly dangerous activity, likely to result in death, dismemberment or serious injury. Structural integrity of the barrel, powder charge preparation, premature discharge as a result of burning embers remaining in the barrel from previous cannon fire, reliance on others to follow proper procedures and other unforeseen and unanticipated conditions may contribute to accidents, serious injury or death. The authors and publishers of these procedures, rules and guide lines specifically recommend you do not engage in this activity unless you are thoroughly trained by competent instructors, and are fully aware of the potential for injury or death. **Do not rely on the information contained herein to protect you from the dangers of engaging in the loading or**

*firing of artillery.* This document is ONLY a summary of what the publishers consider the essential safety rules and procedures they themselves follow when engaging in this extremely hazardous activity, and which have been adopted in part by the Commonwealth of Massachusetts Dept. Of Public Safety, the North – South Skirmish Association, the American Artillery Association, the Union and Confederate Volunteers, the National Muzzle Loading Rifle Association and other such groups which participate in loading and shooting of antique artillery for recreation and historic demonstration purposes. You should be forewarned that several dismemberments and at least one death have occurred in the United States and Canada to persons while loading or shooting antique artillery or replicas. In addition gun tubes have failed, sending fragments in all directions at high speed and causing damage and injury. Do not use any propellant that is not in labeled containers, know your propellant and get it from a reliable source.