# Weapon Information ~ Safety and Cartridges

No matter if you use a rifle, fowler (smooth bore rifle) or musket, the basic safety rules for all periods are pretty much the same:

- a. All arms must be well maintained and be clean when safety inspected.
- b. All firelocks (flintlocks) will have a flash pan guard. {Not at all Period Correct, these are a modern safety feature that every event that allows LIVE fire requires. This is to protect the eyes / face of the person to your right. When the firelock to your left goes off, you will understand and fully appreciate this requirement. As there are several different versions out there, your unit may well specify one)



A properly installed flashguard

C. All firelocks (flintlocks) will have a 'hammer stall'. (A Period Correct safety device {The British were issuing them during the American Revolution}, it is essentially a leather glove that can be slid over the steel (frizzen in post-cap-lock days terminology) to prevent an accidental discharge should the cock (hammer) unintentionally let go. Inexpensive and simple, you can easily make one from scrap leather.



Example of a Hammer Stall

- d. There are two standard pre-battle safety checks we will always do:
  - a. Pinging the barrel holding the arm muzzle up, remove the rammer then when the inspector says to, 'smartly' send the rammer down the barrel. The rammer should bounce up while making a distinct 'pinging' sound. (Don't be overly zealous sent too smartly down, the rammer can zing all the way out) If there is a

charge or old cleaning wad still down the barrel, the ramrod will neither bounce nor make that distinct ping.

b. "Put a strain on the cock' (Revolutionary War usage for "halfcock") then muzzle down, support your firelock by the trigger only. The hammer should remain at half-cock. If the cock falls, you will not be allowed on the field carrying that defective firelock.

**SAFETY FIRST :** All period muzzleloaders and modern replicas must be loaded with the correct gun powder. DO NOT go by the color alone, go only by the labeling on the powder can. Flintlocks must be charged with genuine Black Powder, this requirement is not a matter of safety, it is simply that the sparks a flintlock creates are not hot enough to ignite any of the BP equivalents currently in production.

When one thinks of flintlocks, the first thought that comes to mind is "Powder Horns." Forget about using one in reenactments. For safety reasons, if you carry a horn, it will be a fashion accessory only. As part of the pre-battle safety inspection, if a horn is carried, it MUST be empty. It will be checked.

How can I charge my firelock if I am not allowed to use a horn? Simple – you will use paper cartridges pre-event loaded with a specific charge of black powder. All cartridge rolling must done at home, no making rounds in the field. This is because you cannot control the behavior of smokers or the possibility of camp fire sparks landing in your gun powder and ruining your day. Under NO CIRCUMSTANCES will you bring a BALL CARTRIDGE to an event or drill. DO NOT bring loose lead balls to an event or drill.

Paper cartridges will be carried in a cartridge box (strap over the left shoulder/ box on the right side) or in a belly box. The exact construction type, style and capacity (number of cartridges) will be unit & time period specific. Defer to your unit's requirement for any & all such details.

## **Paper Cartridges**

During the time period we reenact muskets were loaded from paper cartridges that had been prepared well in advance of battles. Rifles and fowlers were loaded from a powder horn and loose ball. For safety sake, we will load all weapons from a paper cartridge.

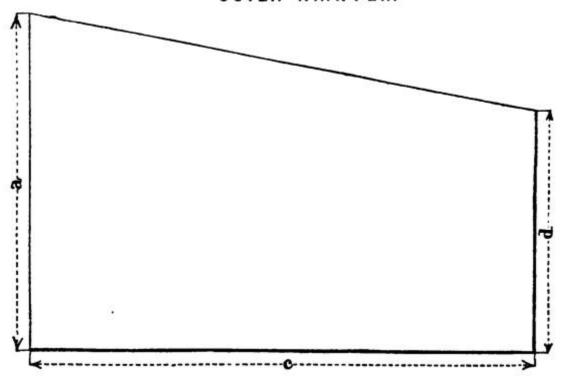
Loading from a powder horn has a degree of danger that a smoldering ember in the barrel may ignite the powder as it falls down the barrel and "run" up into the horn and explode.

Our cartridges will be loaded with the maximum amounts allowed by the Continental Line. They are:

- a. Musket cartridges will hold no more than 100 gr. 3F
- b. Rifle cartridges will hold no more than 80 gr. 3F

To make a Rolled Paper Cartridge:

There are a couple of period correct components that should be used in the construction of quality cartridges – using "rag" paper to make the tubes and linen thread for tying off one end. That said, brown wrapping or grocery bag paper works just fine except there is a caution - the paper chosen must be sturdy enough to hold its shape but not so sturdy as to be difficult to tear open with your teeth. Test by rolling a tube then holding the sample in your right hand while biting down on one end with your molars and tear. Your teeth will tell you if the paper is OK to use.



- A. Cut into the paper into *side c* width strips
- B. With a "Square Cornered Trapezoid" pattern like the image above, mark the strips into individual sheets. {While stiff cardboard will do, a pattern from thin plywood or non-sparking aluminum plate is better. *The dimensions ought to be : Side* A 3.5 *inches, Side* D 2.5 *inches & Side* C 5.25 *inches.*}
- C. Cut the strips into individual papers.
- D. Roll the cut papers into tubes around a former. (A 'former' is simply a dowel rod cut to a suitable length, several inches longer than side

*a*, one end rounded off like the top of a wood handle broom-stick. Make certain the rod's diameter while wrapped with your cartridge paper is small enough to easily fit into your cartridge box's holes)

- a. Starting with *side a* against the center-line length of your former, *side c* extending about a  $\frac{1}{2}$  inch below the former's round end, roll so the slope spirals down towards the former's rounded end.
- b. Twist tight that extended end then tie off with a miller's knot ("Hold standing part of cord, twist it in a loop so the line in your right hand comes from beneath the loop. Make a second loop the same way.") Cotton kite string works well as a tie-off cordage.

i. NEVER, repeat NEVER close off blanks with staples. Of filling rolled-cartridge papers – Determine if you are going to load for a rifle or a musket, if you have a fowler, use the same charge as a musket. The easy way to charge multiple cartridges is after you tie-off a tube, insert it into one of the holes in your cartridge box while still wrapped around the former. Mash down then remove the former. Roll & form a number of rounds until the cartridge box is filled. Using your powder measure set at the required charge, then while the tubes are sitting open end up in your cartridge box, load your tubes.

After filling those upright tubes in your box:

(1) Flatten the tube tops then fold the long sides towards one another.

(2) Fold the flattened end back down against the filled end.

Repeat rolling, filling and folding until have you have enough blanks for the event.

## How to Load your Flintlock Musket (and Rifle / Fowler during Reenactments)

The exact commands and motions may very from each unit and time frame, but the following general information will assist in your operations:

1. Hold your firelock in your left hand, lock away from your body, muzzle to your left.

2. Half-bend the cock (Go to half-cock.)

3. Open the pan (Flip the frizzen forward exposing the pan if not already forward from having been just fired)

4. Open your cartridge box

5. Handle your cartridge (Take a cartridge out of your cartridge box by holding the blank between the thumb and two forefingers)

6. Open cartridge by biting and tearing off the top of the paper.

7. Prime by shaking some of the powder into the pan. Five grains is adequate, do not fill the pan up.

8. Shut the pan / close the frizzen.

9. Cast about your firelock. (Flip the muzzle up, rest the butt on the ground)

10. Holding the muzzle slightly away from yourself and the person to your left, pour the balance of the powder in your cartridge down the muzzle. DO NOT stuff the empty cartridge or anything else down the barrel. DO NOT withdraw or use your ramrod to tamp the powder down.

11. Discard the empty paper cartridge per the event's standards. Some will allow you to drop it on the ground, others will require that the empty be stuffed into a pocket or pouch, generally your haversack being the most convenient one available.

## How to Load your Flintlock Rifle / Fowler for Demonstration Purposes

There probably aren't commands for this process as the majority of the rifle carrying individuals acted as skirmishers and fired at "will" once the initial command was given. There were designated "Corps of riflemen" and they may have fired by company initially, but it is my hunch that after the first firing, they would load and fire at their own pace.

In order to be safe, we will load rifles in the following manner:

1. Hold your rifle in your off hand, lock and muzzle away from your

body.

2. Using a powder measurer, pour the charge of black powder down the barrel. Secure the powder horn.

3. "Load" a wad of paper ball into the barrel, draw the ramrod and ram the paper ball down to compress the load into the breech.

4. Bring the rifle up to your arms and make sure the muzzle is pointed in a safe direction while you have access to the lock and pan.

5. Set the cock at half-cock.

3. Open the pan (Flip the frizzen forward exposing the pan if not already forward from having been just fired)

4. Dribble or pour your priming charge into the pan from your powder horn.

5. Shut the pan / close the frizzen.

6. Aim in a safe direction.

## **The Firings**

There are a multitude of firing commands and they vary from which side of the war you are fighting, the year, and even unit preference. The one common trait between all of them is that everyone in the ranks really needs to pay attention as in the din of battle makes orders hard to hear. On that note, it is really a reenactorism for the NCO's to repeat the commands a beat after the officer. Somebody has watched *The Patriot* one too many times.

The most common commands are:

[Company/Unit/Battalion] Prime and Load – When you are unloaded, after loading come to shoulder arms.

[Company/Unit/Battalion] Fire by File – This when you are in two ranks and a pair of soldiers fire, and then the next pair, and so forth. This is a rolling fire down the line and is rather effective with twenty or so troops as you can keep up a sustained fire.

> [Company/Unit/Battalion] Fire by Rank – Pretty self-explanatory. [Company/Unit/Battalion] Fire – Everyone shoots at one command.

## **Live Firing Information**

#### Loading the .40 Rifle

Patched Round Ball – Small Game .390 round ball and .010 patch with 40 grains of 3F

Patched Round Ball – Deer .390 round ball and .010 patch with 60 grains 3F

## Loading the .62 (20ga.) Fowler

Round Ball - 80 gr. 3F, a .125" hard card over-powder wad, a .50" cushion wad soaked in lubricant, and then the ball patched with .017" ticking. A .610 Round Ball weighs 330 grains.

Small Game - 60 gr. 3F and #6 shot (7/8 oz.) or 70 gr. and #6 (1 oz.) load with a .125" hard card on top with a .50" cushion wad soaked in lubricant as over powder

Turkey -80 gr. 3F and #6 (1.5 oz.) load with a .125" hard card on top with a .50" cushion wad soaked in lubricant as over powder.

## Loading the First Model Bess

Conventional Load - 90 grains of 2F or 3F black powder in a paper wrapper that has been dipped in lubricant. The ball is either .715 or .735, depending on your intent of multiple firings before cleaning.

Buck-N-Ball - 110 grains of 2F in a paper wrapper dipped in lubricant. The ball should be .69 and three .30 shot.

### Loading the Pedersoli Jaeger .54

Patched Round Ball - .535 and .010 patch 60-110 grains 3F black powder (ideally 75 grains 3F)

Maxi Ball – .54 (420 gr.) Maxi Ball with 70-110 grains 3F black powder and no patch

#### Loading the Pedersoli Blue Ridge .50 Rifle

55-100 grain 3F black powder with .490 round ball with .010 patch (ideally 75-80 grains 3F)

## **Additional Information**

http://www.traditionalmuzzleloader.com/index.php/musket-loading