

WAYNE'S IMPROVED MUSKETS

by Mark G. Rentschler

On July 13, 1793 Anthony Wayne, Major General and commanding officer of the troops in the service of the United States, wrote to Henry Knox, then secretary of war, a letter which described an "improvement" he directed to be made by altering the touch hole of a musket. He indicated that by filling up the old touch hole and drilling a "new one, pretty large" at an oblique angle instead of a right angle, and using very fine grain powder, the necessity of priming would be eliminated, and the musket could prime itself with more certainty in action. Collectors have long sought an example that would exhibit this modification.

*"... I have made small experiments in the ideas I mentioned to you respecting the improvement of the Musket, by an alteration in the touch hole, ie by filling up the old and drilling a new one, pretty large in an Oblique, in place of a right angular direction with the Caliber, which with a very fine grain powder, will most certainly preclude the necessity of priming, the concussion of the air, in forcing down the charge, will cause each musket to prime itself with more certainty in Action than the common mode, the eye of the soldier will therefore be constantly upon his Enemy and he can pursue and load in full trot without danger of losing any part of his powder as he will have nothing to do but to bite off the top of the cartridge and introduce it into the piece and that much quicker than he could load standing in the ranks in the usual way. This is a maneuver that must be practiced by the Light troops it will accustom them to the report of their own Muskets, so as not to be alarmed at their own fire – and with the aid of a powerful and well-appointed Cavalry (should the Indians prefer the Hatchet to the olive branch) I trust will produce a conviction not only to the savages but to the world, that the US of America are not to be insulted with impunity – the fire in this way is as three to two standing and as two to one running and may yet be improved by an equal ramrod. I herewith send you a sample of the powder I wish for, pray forward it with all possible dispatch, if it can be met with or purchased at double price for if the present overtures of peace are treated with contempt or neglect, we must suffer another defeat."*¹

Wayne was clearly very serious about his experiment given his willingness to pay double for the powder. He knew he had to get the legion ready to fight on the frontier against an enemy that had demonstrated its ability to not only defeat but destroy an American army. Knox replied on July 20th from the War Department and suggested arming an entire company of troops with the altered muskets. A company of the legion was 98 men and was made up of one captain, one lieutenant, one ensign, six sergeants, six corporals, two musicians, and 81 privates for a total of 98. Accordingly, almost 100 muskets could have been altered in this fashion by the artificers that accompanied the army in Pittsburgh.

"...I will endeavor to find some fine grain rifle powder equally so with the specimen you forwarded but I apprehend the quality of the specimen not to be good..."

..Will it not be best in the first instance to arm a company in the manner you propose as an experiment if upon a mature

experience it should be found superior to the present mode, it may be adopted.

*In the contest in which we are engaged, good marksman seems to be the main qualification of the troops and in this I am persuaded you will exercise your army so as to make them perfect."*²

The president was keenly aware of the situation on the frontier. Washington writes Knox on the 26th of August, 1792 to indicate he is less than enthusiastic about this experiment but supported supplying the fine grain powder immediately. Both Washington and Knox had extensive combat experience and wanted Wayne to test this modification thoroughly. Washington writes,

*Whatever Genl Wayne may require towards the equipmt of his troops for the service for wch they are designed, provided a compliance therewith be authorised by Law, I think had better be granted. powder in particular, precisely such as he desires, I would furnish him with in order that there may be no room for complaint here after on that score; At the same time I must confess that I am no friend to his proposal with respect to enlarging the touch holes—for part of the force of the powder must be expended that way, & when the musket gets a little foul, may not communicate with the pan—it would certainly be better to employ a little more time in loading, where every shot ought to be well & deliberately aimed."*³

General Wayne had an extraordinary charge, building and training an army following two disastrous defeats at the hands of the Ohio tribes. His army would have to subdue the Shawnee, Miami, Ottawa, Wyandot, Potawatomie and other aligned nations and even perhaps the British army to bring peace to the Ohio Valley. His alteration of the musket was an attempt to improve the legion's ability to fight a determined enemy in a hostile land.

After Wayne's initial request for fine powder necessary to support the modification of the musket, there are at least several requests made during 1792 from Wayne or responses from Knox about fine powder or powder sieves to sort the powder for Wayne's experiment. On August 17, 1792, Knox indicated that he had ordered 40 quarter barrels of powder of the finest grain to be purchased and transported immediately. Knox also indicates that perhaps Wayne can have some powder "mealed" milled, to place at the head of each cartridge that might have the same effect.⁴ By September 1st, these 40 casks were being transported to Wayne.⁵

But much of this is purely speculation based on requirements for powder. Did General Wayne actually alter a number of muskets? As Wayne was readying his army to leave the Hobson's Choice encampment and move the army into enemy territory, we discover a clear reference to his intention to issue the "improved" muskets to the "Light Corps". In correspondence with Knox during April of 1793, Wayne corrects a mistake of Major Burbeck to call a quantity of powder "battle powder" which was just the sort of powder Wayne has been requiring since the previous summer, 1792. He then goes on to say, "This is a powder indispensably necessary for the light corps which I shall immediately form

upon the junction of the Legion and who are to be armed with the improved muskets.”⁶

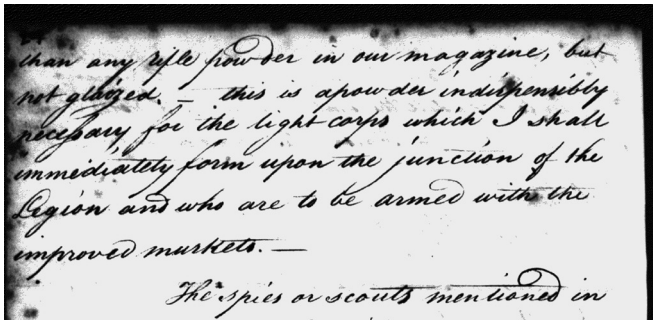


Figure 1. General orders of August 22, 1793 issued at Hobson's Choice, the encampment of the legion outside of Fort Washington, ordering that "one flank or light company shall be drafted from each Sub Legion and in due proportions, the improved Musquets"⁷

More importantly, in the General orders of August 22, 1793 issued at Hobson's Choice, the encampment of the legion outside of Fort Washington, the commander in chief determined to level the manpower of the various sub-legions and ordered that "one flank or light company shall be drafted from each Sub Legion and in due proportions, the improved Musquets" (Figure 1). Wayne is essentially creating a unit that will utilize the altered muskets. He goes on to further specify that "the surplus companies of riflemen belonging to the 3rd and 4th Sub Legions shall be annexed to the Infantry Battalions and armed with musquets and bayonets, as the most formidable weaponand if a sufficient number of real riflemen cannot be found in the 1st and 2nd Sub Legions, the deficiency shall be made up by the most expert infantry armed with the improved musquets and joined to the riflemen of those sub legions."⁷

So, it is now clear that General Wayne created a special light corps, armed with his improved musket. We now have proof that Wayne not only created these muskets but issued them to four companies of light infantry attached to each sub legion. There are subsequently numerous references to "light infantry" in Wayne's communications including high praise for Captains Lewis and Brock and their companies of light infantry at the Battle of Fallen Timbers, who "had to sustain an unequal combat for some time which they supported with fortitude..."⁸ Lt. Towles of the light infantry was killed in the first charge.

These companies of light infantry operated within each sub legion and those troops in each company were in combat at Fallen Timbers. Each company would have approximately 80-100 armed soldiers. There were four companies of riflemen. Were these light troops used to support the riflemen, who took much longer to load a rifle versus a musket during the battle? The light companies carried the improved musket in combat but not the entire legion. There is no reference that has been discovered that the improved muskets were issued to all of the infantry. We may speculate therefore that only about 400 muskets received the modification, leading to potentially very few surviving examples today.

Wayne was also a disciplinarian and required the troops to drill and train in order to improve their marksmanship and the troops frequently practiced with their muskets. He frequently mentions the troops drilling with blank cartridges, so they get used to the noise and discharges of their own weapons. Wayne informs Knox,

"...the troops improve very fast in firing at marks, the musketry have carried the prize against the rifles at least every other day- which has produced a happy competition, it is not infrequent for the Corps to hit within one or two inches of the center, and sometimes drive it, Off Arm at fifty five yards distance... in fact we must burn a good deal of powder to make them marksmen and soldiers..."⁹

Wayne instituted the practice of having the guard detail at Fort Greenville shoot at a mark each day as they came off guard duty rather than pull the ball and powder from their muskets. "...they practice only one shot every time they come off guard..."⁹ This practice continued throughout his entire campaign as the document included here indicates that "the first, best shot of the day" would receive a quart of whiskey as the reward. It is signed by Andrew Shanklin at Fort Greenville in July of 1794, counter signed by Captain William Peters who was officer of the day (Figure 2). Both Shanklin and Peters were in the 4th sub-legion at this time. A happy competition indeed!

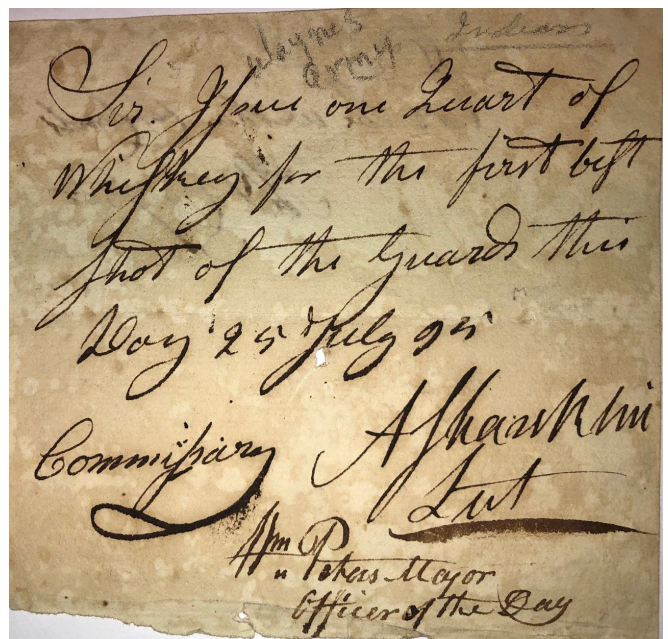


Figure 2. A happy competition. This draw on the commissary would have occurred at Fort Greenville, Ohio.

In fact, there is even a reference to "fine Powder" in the garrison orders of Fort Wayne on March 10, 1795, for returning 50 lbs.¹⁰

So, who was responsible for the modifications to the muskets? Artificers were part of the legion and performed any task needed to keep the army in the field and its equipment in operation. In fact, 40 were called for in the organization, ten for each sub legion assigned to the artillery.¹¹ However, there would have been skilled blacksmiths or other skilled tradesmen in the service of Wayne's legion. The legion also had traveling forges. A traveling forge was one of the items left in the field during St. Clair's defeat.¹² There are numerous mentions of bar and sheet iron and other supplies being shipped west during this period. The artificers would have been skilled at repairing or in this case modifying the muskets.

What might the altered muskets look like or for that matter, the legion's muskets? I believe there are several defining characteristics that help identify muskets used by the legion. There was a well-documented surplus of weapons in Federal storage at

the conclusion of the Revolution. Literally thousands of French, English and Hessian muskets were in storage in various locations throughout the new United States. In 1788, there was an estimate created to clean 11,572 muskets at Philadelphia, but this number was “*somewhat more than half on hand*”.¹³ Several other locations also contained arms that required maintenance and cleaning. West Point in a return from December 1783 had 4,520 good muskets and 13,455 damaged muskets.¹⁴ In a letter from 1798, Samuel Hodgdon states that the “...*muskets and bayonets sent to Captain John Henry were imported Charleville such as the whole army is supplied with...*”¹⁵ He further describes these muskets as having been in storage for many years. Continental contract armorers stamped over 33,000 arms most after 1783 and more than 90 percent were new or unissued French muskets.¹⁶ More than 20,000 arms were cleaned or repaired by Philadelphia area gunsmiths between 1791 and 1794; the overwhelming majority would have been French muskets.¹⁷

Therefore, the legion, and likely the light infantry would have been issued French muskets of a variety of models: 1763, 1766, 1768, 1770/1771 and 1774 types. Many would have been cleaned, repaired and stamped at one of the storage locations, though many would have been stamped US, many would not have been marked at all if they were still unissued or in serviceable condition. Of course, the logical location for arms shipment west to Pittsburgh and the legion would have been Philadelphia. Many of the muskets would have been repaired if needed. These repairs would have included basic improvements like new ramrods, bands and band springs. However, more extensive repairs also would have been completed including restocking, exchanging the lock mechanism, even assembling a musket with a combination of parts from guns damaged beyond repair. Collectors can expect to see French muskets with mixed parts, and these are most certainly of the early Federal era. Numerous French muskets today have American made bands, one or more, some middle bands without sling swivels, that are clearly the same age as the musket and illustrate the type of repairs made prior to the musket being issued to the legion.

Additional evidence of the legion using French muskets is found in a letter from Henry Knox to Major Isaac Craig in October of 1794 instructing him to make as many cartridges as possible for French muskets using soldiers and hired hands. It also instructs him to seek “*all possible assistance*” from Colonel Butler.¹⁸ This reference is obviously in regard to making the appropriate preparations for the expected conflicts anticipated by the legion. Major Craig was a quartermaster serving in the legion from May 1792 to October 1796.¹⁹ Furthermore, Knox writes Samuel Hodgdon to ship 1,000 muskets and bayonets to Georgia “*not of the Charleville manufacture*” in order to create a small magazine in that state for sudden emergencies. In other words, ship the old stuff to Georgia so we can use our Charleville muskets for the legion.²⁰

The “improved” muskets in question here would display an additional identifying feature, an enlarged oblique touchhole. How many examples of Charleville muskets have we seen with re-bushed touchholes but whose locks appear to be in an original flint condition? Some re-bushings were, of course, due to extensive firing, or reconversion from percussion, but a description in Flayderman’s catalog in 1989 describes the situation that may have confused collectors over the years.

Item 1157 PURCHASED AND ISSUED, USED BY AMERI-

CANS DURING THE REV WAR French M1763 FL Musket with authentic large US md at rear of lock (exc)& tang of bbl (light but clear). Very, very deep smooth 0/a age brown metal in untouched condition, will clean exc & better. Just normal age/use; pitting negligible. Mkgs/mech exc. “Charleville” on lock. Piece semi restored to its orig FL condition Has all correct lock parts (even iron flashpan an orig one. Needs only to have the enlarged touchhole plugged/vented & one slight spot under flashpan plugged, metal has never been touched or cleaned, stock matches iron perfectly, just smooth wear.....

Could it have been that this was a Wayne’s improved musket, as the condition of the musket is complete and reflects field use? Was this a misinterpretation of its condition? Were other examples altered by earlier collectors? Most certainly, if approximately 400 muskets existed in 1794, there should be some surviving examples.



Figure 3. Touchhole of the French Model 1766 Charleville musket believed to be modified with “Wayne’s improvement”.

Let’s examine a musket from the author’s collection. It is a French Model 1766 Charleville musket that is original in all respects (Figure 3). The touchhole is now 3/16” in diameter and demonstrates an oblique angle of 20 degrees (Figure 4). A typical Charleville touchhole measures about 1/16th inch in diameter. This musket also has a small IP mark behind the trigger guard, perhaps the mark of Joseph Perkins (Figure 5). It is in its original flintlock configuration with no alterations.

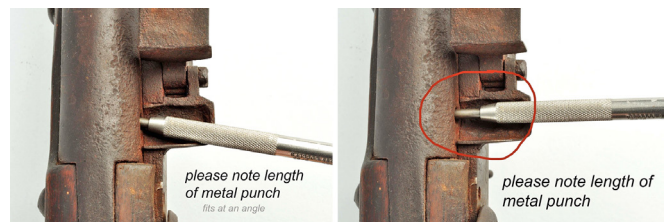


Figure 4. Note the depth of the touch hole for the French Model 1766 Charleville musket with Wayne’s improvement (left) which illustrates the oblique angle.

We can all speculate that this was due to firing or some other reason, but the original nature of the lock and interesting feature of the oblique touchhole indicates, in my opinion, that this is a surviving example of Wayne’s improved musket. In summary, if this is an example of Wayne’s improved musket, it demonstrates all of the characteristics of what one would expect from an arm issued in

the field and used in combat against the Indians at Fallen Timbers. Clearly the musket of choice for the legion was a Charleville pattern French musket, frequently displaying U.S. surcharges, on the lock and or barrel. Other common inspection marks from Joseph Perkins or John Nicholson might also be present particularly if the musket was cleaned and inspected in Philadelphia.



Figure 5. Small IP mark behind the trigger guard, perhaps the mark of Joseph Perkins.

Replaced or mismatched parts might also be commonly present, such as an incorrect middle or forward band, or an American manufactured band without a sling swivel. American restocks with correct French hardware are also known. But for a musket to be “improved” as issued to the light corps, it would have to demonstrate the enlarged, oblique touchhole.

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Endnotes

¹ Richard C. Knopf, *Anthony Wayne A Name in Arms, Soldier, Diplomat, Defender of Expansion Westward of a Nation* The Wayne, Knox, Pickering, McHenry Correspondence University of Pittsburgh Press, 1960, P. 28.

² Ibid, P. 42 and 43.

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⁴ Knopf, *Op. cit.* P. 70.

⁵ Knopf, *Op. cit.* P. 82

⁶ Papers of the War Department *Letter to Major General Knox Legionville 13 April 1793*. Document # 1793041353555

⁷ *Historical Collections made by the Michigan Pioneer and Historical Society Vol. 34, General Wayne's Orderly Book*. Page 467

⁸ Knopf, *Op. cit.* P. 354.

⁹ Knopf, *Op. cit.* P. 89

¹⁰ Old Fort News *A Garrison at Miami Town Fort Wayne October 1794 – June 1795*. Vol. 56 Numbers 1 and 2 for 1993. Allen County-Fort Wayne Historical Society 1994. P. 60.

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¹² Papers of the War Department *Return of articles lost on 4 November 1791*. Document # 1791110480001

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¹⁴ William H. Guthman. *US Army Weapons – 1784-1791*. The American Society of Arms Collectors, 1975

¹⁵ Papers of the War Department *Letter book of Samuel Hodgdon 1798-1799*. Document # 1798100528155. Page 240.

¹⁶ Bob McDonald, “*The arms and accouterments belonging to the United States shall be stamped ... 'Markings on Continental Army Muskets,*” <http://www.scribd.com/doc/181283657/Bob-McDonald-The-arms-and-accouterments-belonging-to-the-United-States-shall-be-stamped-Markings-on-Continental-Army-Muskets>.

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¹⁸ Papers of the War Department *Letter from Henry Knox to Major Isaac Craig October 18, 1794*. Document # 1794101814002

¹⁹ Heitman, *Op. cit.* P. 333.

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