

U.S. Model 1803 Prototype Rifle

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For many years the majority of historians of the Lewis & Clark Expedition had thought the fifteen rifles that Meriwether Lewis picked up at the Harpers Ferry Armory in July of 1803 were the model that we now call the U.S. Model 1803 rifle. Noted National Park Service historian Carl P. Russell wrote that “it is known” that Lewis picked up some of the new Model 1803 rifles in preparation for the expedition.¹

With the renewed interest in the details of the expedition as the Bicentennial (2003–2006) approached, some doubt arose about whether there were any Model 1803 rifles available for Lewis to pick up. Note was made of a letter dated December 2, 1803 from Secretary of War Henry Dearborn to the superintendent of Harpers Ferry Armory, Joseph Perkin, discussing a sample of the Model 1803 rifle and suggesting several changes before production would begin.² By that time Lewis was all the way to the Falls of the Ohio River, so how could he have picked up fifteen Model 1803 rifles?

One of the strongest critics of the idea that Lewis had the Model 1803 rifle was Frank A. Tait. In a 1998 article he published in the *Bulletin of the Kentucky Rifle Association*,³ Tait made a strong case that Lewis must have picked up fifteen rifles from the U.S. Contract of 1792 or 1794. In an article in a similar vein that Tait published in *Man At Arms*,⁴ he stated that several hundred of the Contract rifles were known to have been stored at Harpers Ferry in 1803.

The recent discovery of a Model 1803 Harpers Ferry rifle with serial number 15, and with none of the changes ordered by Secretary Dearborn in December of 1803, has caused a reexamination of this subject.

Richard Keller and Ernie Cowan published an article, “The Short Rifles of Lewis and Clark,” in the *Journal of the Lewis & Clark Trail Heritage Foundation*.⁵ In this article



Keller and Cowan discuss in great detail the implications of this new find.

I will insert a timeline here to clarify later references to dates:

1. **March 14, 1803**, Dearborn to Perkin:

“You will be pleased to make such arms & iron work, as requested by the Bearer, Captain Meriwether Lewis and to have them completed with the least possible delay.”⁶

2. **March 16, 1803**, Meriwether Lewis arrives at Harpers Ferry with above letter and remains there one month to oversee production of his items.

3. **April 20, 1803**, Lewis writes to Pres. Jefferson:

“Rifles in a state of forwardness . . . and will be ready in due time.”⁷

[One month and still working on the guns.]

4. **May 25, 1803**, Dearborn to Perkin: Dearborn describes the rifle he thinks would be best for the Army and calls it the “short rifle.”⁸

5. **July 8, 1803**, Lewis writes to Jefferson:



Serial 15 un-belled thimble.



#2682 belled thimble.

"Yesterday I shot my guns and examined the several items that had been manufactured for me at this place, they seem to be well executed."⁹

[This suggests approximately fifteen weeks to finish the guns. If they had been on-hand Contract rifles, they should have been ready with a short delay for refurbishment.]

6. **December 2, 1803**, Dearborn orders a number of changes from the sample sent by Perkin.¹⁰

7. **November 1, 1804**, Dearborn to Perkin:

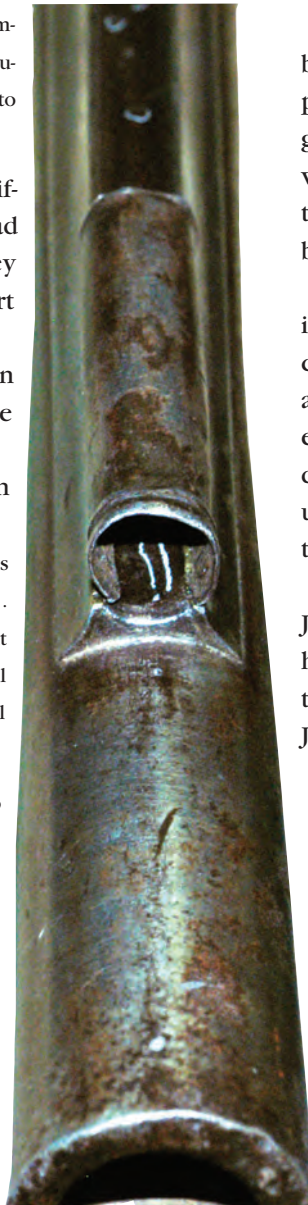
"Your favor of the 26th Ult. has been duly received [letter or sample rifle?]. As your hands have now acquired sufficient knowledge in manufacturing Rifles it will be advisable to continue making them until 4,000 shall be completed."¹¹

Dearborn's letter of May 25, 1803 is in such great detail (rib should end three inches short of the muzzle, butt end of the ramrod should be concave, etc.) that he must have been examining a sample of a rifle. In the same letter to Perkin he asks Perkin to advise of any improvements he can suggest. It seems obvious they are discussing a rifle on hand. Then on December 2, 1803, Dearborn has in his hand a further refinement of the rifle. For this paper, it is important to know Dearborn's instructions to Perkin to modify the rifle because we are going to show that rifle serial number 15 has none of those improvements, thereby indicating it was made before this date.

Secretary of War Henry Dearborn to Superintendent, Harpers Ferry Armory, December 2, 1803:

"The iron-ribbed rifle in my opinion is an excellent pattern, with the following very trifling alterations. Viz, the upper end of the upper thimble should be a little bell-muzzled to receive the introduction of the ramrod more conveniently. The aperture or cut in the sight near the breech should be a little wider and a brass ferrule placed on the end of the stock near the tail pipe to prevent that part of the stock from splitting."¹²

There are other changes that we have found when comparing serial number 15 to production guns:



#15 unbelled thimble.

In addition to the top thimble being straight and no brass reinforcing band, this rifle has the rib made of three parts brazed together rather than the solid rib of production guns. The under part of the octagon part of the barrel is round whereas the production guns are octagon. The buttplate on this gun is made from two parts rather than the one-piece buttplate of the production guns. The lockplate is dated 1803.

The above variances indicate that this gun, serial no. 15, is a pre-production gun. The Harpers Ferry armorers had to construct a rib from pieces, braze two parts together to make a buttplate, and obviously build this rifle by hand. It should be emphasized that Lewis did not take fifteen rifles from the production run from the Army contract; he had these guns made up during the period that the Armory was experimenting with the development of the production-run guns.

In addition, Lewis asked for fifteen replacement locks. Joseph Perkin was an accomplished lockmaker at Rappahannock Forge, and likely he oversaw the construction of the locks so that they were near interchangeable. In the Journals, Lewis wrote:

"The guns of Drewyer and Sergt Pryor were both out of order. the first was repaired with a new lock, the old one having become unfit for use. the second had the cock screw broken which was replaced by a duplicate which had been prepared for this lock at Harpers Ferry where she was manufactured."¹³

Note Lewis's use of "manufactured at Harpers Ferry."

The 1792 and 1794 Contract rifles had barrel lengths of 42" to 44-1/2,"¹⁴ whereas the Model 1803 rifles had 33" barrels and were commonly called "short rifles." The use of the term "short rifle" by Secretary Dearborn in his letter of instructions to Perkin and by Lewis and his men in the Journals is another indication that they were not carrying the 1794 Contract rifles. Tait counters this argument by stating that the Journals mention instances of the rifles bursting at the muzzle (from mud or snow?) and being shortened by gun-



#2682 belled thimble.



#15 braze lines showing 3-piece construction of rib.



#2682 solid rib.

smith John Shields. These would be the “short” rifles Lewis mentions. However, a close reading of the Journals shows Lewis referring to short rifles before the instances of the burst muzzles. On April 12, 1806, Lewis orders all the men who have short rifles to be available for a possible confrontation with the Indians.¹⁵

Clark, Lewis, and Sgt. Ordway mention the “short” rifles four times before the date July 1, 1806 when Lewis reports that John Shields cut off the burst muzzle of Private Windsor’s gun.¹⁶

In Clark’s version of the repairs, he mentions that there were two burst guns shortened by Shields.¹⁷

In addition to the barrel length, the Model 1803 differed from the 1794 Contract rifles in caliber. Moller reports that the Contract rifles were .45 to .49 caliber, whereas the Model 1803 was a nominal caliber of .54. Dearborn specified it should “carry a ball of one thirtieth of a pound.”¹⁸

On August 12, 1806, Lewis and Private Cruzatte were hunting for elk. Lewis was wearing elkskin clothing and Cruzatte was blind in one eye and could not see well from the other. You can figure what happened next. Lewis was shot through the buttocks while he and Cruzatte were separated searching for a wounded elk. Later, Cruzatte denied shooting Lewis, but Lewis reported that “the ball had lodged in my breeches which I knew to be the ball of the short rifles such as that he had.”¹⁹

This was probably the first forensic ballistic identification in America.

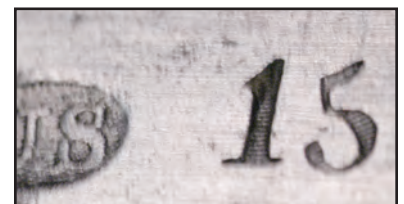
The argument could be made that Lewis just asked Perkin to select fifteen of the 1794 Contract rifles on hand and shorten them, bore them out to .54 caliber, and so forth. If that were the case, we should give Lewis credit for the design of the 1803 “short rifle” and that his fifteen rifles were prototypes for the Model 1803.

In an attempt to keep this presentation to a reasonable length, I refer those interested in additional details to Keller and Cowan’s article in *We Proceeded On*. The editor for publication shortened their original 21-page manuscript, but I have a copy of the full manuscript that I will share with any interested members.²⁰

Keller and Cowan are still actively researching the details of early Model 1803 Harpers Ferry rifles in order to



Shows horizontal lines on serial numbers. These lines are also on #2682 and presumably on all 4015 model 1803 rifles.



determine how many, and in which serial number range, have the features of the pre-production rifles. They are also seeking a rifle with a serial number over 4000. If you have, or know of, a rifle with a serial number under 1000, or one with an 1803 date lock, or one with a serial number over 4000, please let me know about it.

REFERENCES

1. Russell, Carl P., *Guns on the Early Frontiers*, New York: Barnes & Noble Books, 1957, 1996, page 177.

2. Hicks, Maj. James E., *Notes on United States Ordnance, Vol. 1: Small Arms, 1776-1946*, New York, Mount Vernon: author, 1940, 1946, page 25.

3. Tait, Frank A. "The Military Kentucky in U.S. Service." *Kentucky Rifle Association Bulletin*, Vol. 25, No. 2, Winter 1998, page 2.

4. Tait, Frank A., "The U.S. Contract Rifle: Pattern of 1792," *Man At Arms*, Vol. 21, No. 3, June 1999, page 33.

5. Keller, Richard and Ernie Cowan, "The Short Rifle of Lewis & Clark." *We Proceeded On*, Vol. 32, No. 2, May 2006, page 20.

6. Jackson, Donald, Editor, *Letters of the Lewis and Clark Expedition with Related Documents 1783-1854*, 2nd ed. Chicago, 1978, page 54.

7. Jackson, page 38.

8. Hicks, page 25.

9. Jackson, page 106.

10. Hicks, page 25.

11. Hicks, page 25.

12. Hicks, page 25.

13. Moulton, Gary, ed., *The Journals of the Lewis & Clark Expedition*, Lincoln: University of Nebraska Press, Vol 6, page 441.

14. Moller, George D., *American Military Shoulder Arms*, Vol. II, From the 1790's to the End of the Flintlock

Period, Niwot, CO: University Press of Colorado, 1993, page 26.

15. Moulton, Gary, ed., *The Journals of the Lewis & Clark Expedition*, Lincoln: University of Nebraska Press, Vol 7, page 111.

16. Moulton, Gary, ed., *The Journals of the Lewis & Clark Expedition*, Lincoln: University of Nebraska Press, Vol 8, page 75.

17. Moulton, Vol. 8, page 80.

18. Hicks, page 25.

19. Moulton, Vol. 8, page 154.

20. Keller and Cowan, unpublished manuscript, June 5, 2006, 21 pages. In this manuscript, the authors discuss, among other things, the following:

- The 1810 and 1822 inventories of the U.S. Arsenals
- The heptagonal style of rifling and the determination of caliber
- Interchangeability of locks and Joseph Perkin's experience as a lockmaker at the Rappahannock Forge
- Assembly marks on the various parts of rifle serial no. 15
- Location of center thimble on early rifles
- Style of front and rear sight on early rifles
- No known instances of octagon-barrel rifles (1794 Contract) bursting at muzzle as contrasted to round-barrel rifles (1803 Model) being susceptible to bursting with an obstructed muzzle
- Manpower and skill at Harpers Ferry Armory to enable Lewis's rifles to be made in relatively short time
- Complete citations on every mention of 'short' rifles in the Journals of the Expedition
- Special purchase in Philadelphia of 123 pounds of Best Quality English Beck & Harvey powder for the short-barreled rifles
- Why Lewis ordered 15 slings from Harpers Ferry Armory

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