

Harpers Ferry Rifles: Comparing the Models 1803-1814

by: William E. Gerber

Gentlemen, it is a pleasure to once again have an opportunity to be with you and enjoy sharing my study of the Harper's Ferry rifle. While my sample is quite small — two original flintlocks and one conversion in hand, a letter from John Stapleton regarding his guns, pictures from the Locke collection of six specimens, pictures from Butler's "U.S. Military Firearms" and Brown's Harper's Ferry Arms," I am confident that further study will bear out the consistency of the differences enumerated here.

My initial interest in the subject was aroused by the desire to acquire one of these rifles. I attempted to find some written matter on the subject with very little success and that which I found lacked detail and minimized the facts. Some years ago the Society was addressed with regard to this subject by Meade Patterson, who made the following statement: "the later production rifles were exactly like the rifles of the period 1803 insofar as hand manufacture could make them alike with the exception of barrel length being increased from 33" to 36". Further he stated that in his estimates the rifle does not really deserve another model designation because lengthening the barrel should not justify calling the rifle by another model name. Another very qualified source recently minimizes the differences in these arms which, I think, further confuses the student collector.

I am sure that at the conclusion of this talk there will still be room for further study and comparison. The whole reason for the talk will have been lost if that does not occur. I encourage you to study specimens you may own and let me hear from you on errors, additions or corrections. Now, significantly, there are at least 17 real differences between the 1803 and the 1814 model Harper's Ferry rifles that are, in my opinion, not due to hand manufacture. There are few changes made in the 1814 which are made for reasons of improving its function, and most would fall into the category of design esthetics. It is an interesting aside to recognize that the early Harper's Ferry arms (musket, pistol and rifle) have many similar characteristics and the changes in the later production rifles also show up on the muskets. Because of the actual dissimilarity of these arms and the fact that no known correspondence by the Ordnance Department assigns specific terminology to them, we are safe in calling them whatever suits us without fear of offending historical reference. As a matter of fact, Hicks book quotes some Ordnance Department letters referring to the "rifle" or the "iron ribbed rifle": not even "an 1803 model", which name was probably assigned by Hicks. Thus, I believe the collector will be justified in using model date terminology which is easy and more descriptive than any other way.

Now, let's get down to the specifics. Figure 1 shows the



two rifles in my collection, the 1803 at the top and the 1814 on the bottom. Certainly, viewed at this distance they appear to be identical twins.

At the conclusion of this talk, however, you will be able to identify either gun as to model fifty feet away. The answer as to how, lies in noting what I consider to be the most important distinctions between them. Let's look at figure 2 for the first of these.

Notice the barrel ribs and the relationship of the ramrod to the bottom edge of the barrel. The rib on the 1803 is noticeably narrower bringing the rod closer to the barrel. By this alone, one can distinguish the models apart with virtual certainty. Figures 1 & 2 clearly show the wide gap on the 1814 model. It is possible that this widening of the rib falls into the category of function, for it would appear that returning the rod would be facilitated somewhat by removing the thimble further from the barrel.

Secondly, a design change occurs with respect to the barrels. At the juncture of the octagonal part with the round part will be found two distinctly different transitional rings. Notice in figure 3 that on the 1803 there is a series of three rings, one narrow and sharp next to a broad round one and terminated by another narrow sharp one.

On the 1814 Model you will notice that only a single sharp ring is present and only a ghost of what might have been the broad round one, possibly ground off. The position of the rings relative to the brass ferrule reinforcing the forward end of the stock also is a tipoff as to which is being viewed and this can readily be detected from any decent photograph no matter how small. There may be found exceptions to this in guns marked 1814, as one picture in Meade Patterson's article on Harpers Ferry shows an 1814 model so dated and the position of the ring(s) lies between those shown in fig. 3 and 4 above. All the other discernible differences appear to be consistent with those

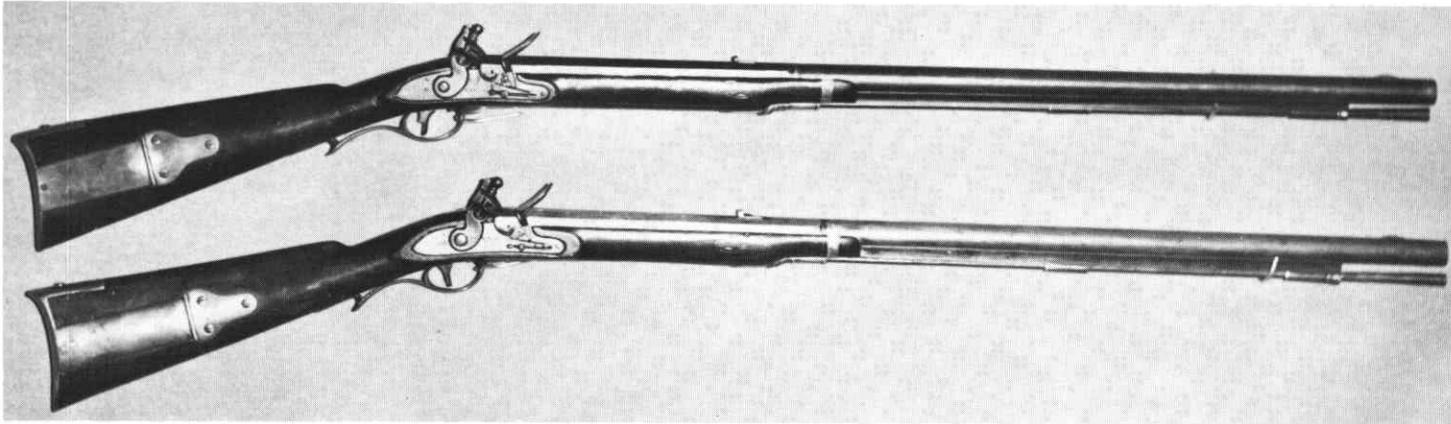


Figure 1 shows the two rifles in my collection. The 1803 at the top and the 1814 on the bottom.

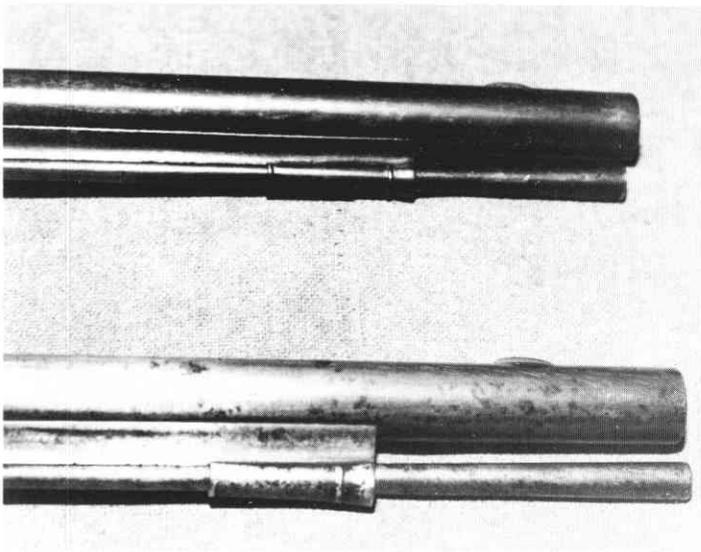
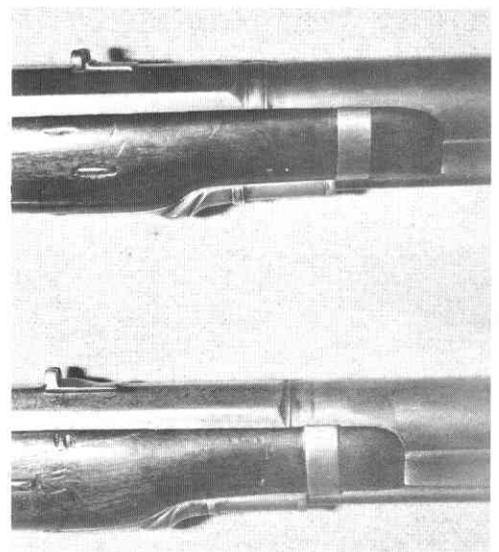
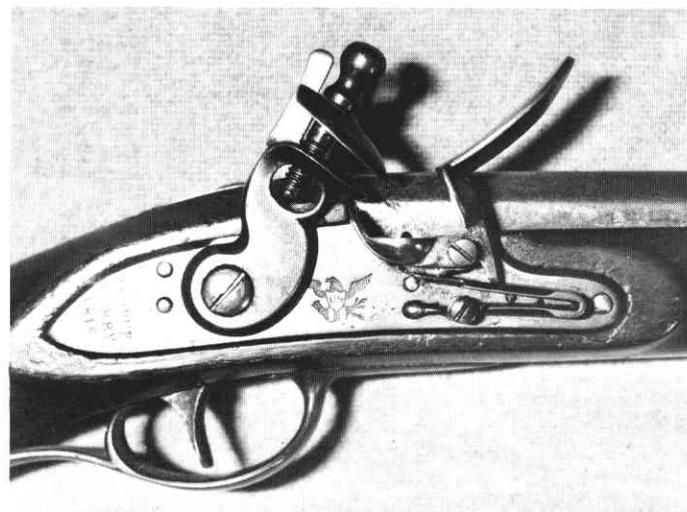
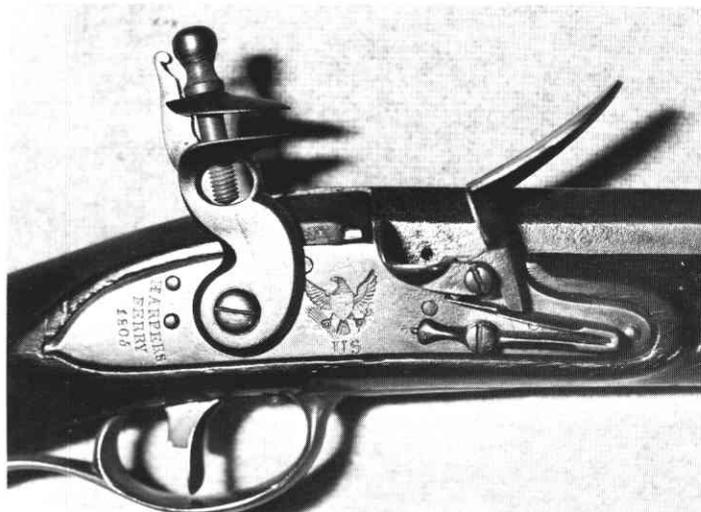


Figure 2: Notice the barrel ribs and the relationship of the ramrod to the bottom edge of the barrel. The rib on the 1803 is noticeably narrower, bringing the rod closer to the barrel.



Figures 3 and 4: On the 1803 there is a series of three rings, two narrow and sharp separated by a broad one. On the 1814 there is a distinct difference.



Figures 5 and 6: The lockplate markings differ, with the 1803 having the large, broad eagle with US underneath.

discussed in this study. I would certainly like to hear from anyone about any specimens dated 1814.

Lock differences are substantial although very hard to notice at a casual glance. The only functional change can be summed up by saying that the lock on the 1814 is considerably "heavied up". In doing so the Armory destroyed much of the beauty of the early rifles. Close ups of the entire lock area are shown in figures 5 and 6. No doubt that the earlier arm is more graceful and closer to its cousin the Kentucky rifle. Now let's take the lock apart and discuss its various parts. The LOCKPLATE itself is noticeably altered by removing the small tit at the rear and by thickening it by almost 60%. This is shown in figure 7. Obviously, this would give a much greater surface for the lock screws and mainspring to be secured and as such a functional change and an improvement. The COCK is thickened also in the 1814 and the attractive curled tip removed at the same time. The FRIZZEN SPRING of the 1803 terminates in a heart shaped design with a tiny tit at the very end (Fig. 5 & 6). A small feature, but one which adds to the beauty of these early guns. Figure 8 shows the FRIZZENS. It is difficult to adequately show changes here without having the arms in hand. However, the thickness taper and the shape of the forward face change in the later production guns.

The PANS differ considerably between the models, but you could miss the change in a casual glance. The outside profile of the 1803 from the side shows a much shallower pan with a very erect fence as compared to the 1814 which also has a smaller powder receptable. Apparently, this would put more metal in this component and extend its life. These features are shown in figures 9 and 10.

The LOCKPLATE MARKINGS differ markedly with the 1803 having the large broad eagle with the U.S. underneath. This particular eagle is also commonly found on the pistols and on the early muskets. The 1814 marked specimen in Meade Patterson's article appears to have a large eagle as found on the 1803 but the picture is too small and unclear to be certain, and this needs to be ascertained definitely to complete this study. Finally, the lettering on the early rifles is more crudely done. These marks are clearly shown in figures 5 & 6. Barrel marking is changed in the 1814 and comparisons are shown in figures 13 and 14.

There are other comparisons between the rifles which could be considered of less significance than the aforementioned, however, when taken as a whole, they make a different "collectors" gun. I doubt, however, that the soldier who used them knew the difference.

The STOCKS on these arms vary considerably but very subtly. The upper edge of the buttstock on the 1803 has a very gentle curve with a less pronounced comb than that of the 1814 and the overall dimensions differ with the earlier rifles having heavier dimensions overall (fig. 1 & 7). You have to handle them to realize this, however. The cheekrest of the 1803 is simple but a bit fancier than its successor. The area around the lockplate on the 1814 is wider and would be less subject to wear or breakage. These features are shown in figures 1, 5, 6 and 11.

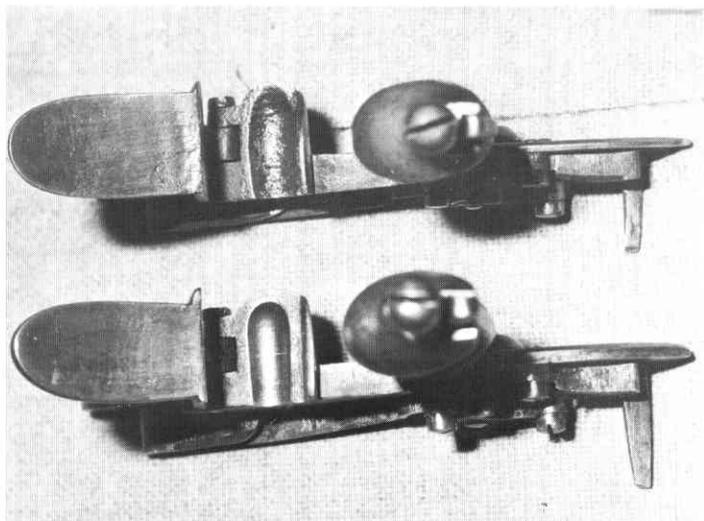


Figure 7: Looking down on the wide and narrow lockplates.

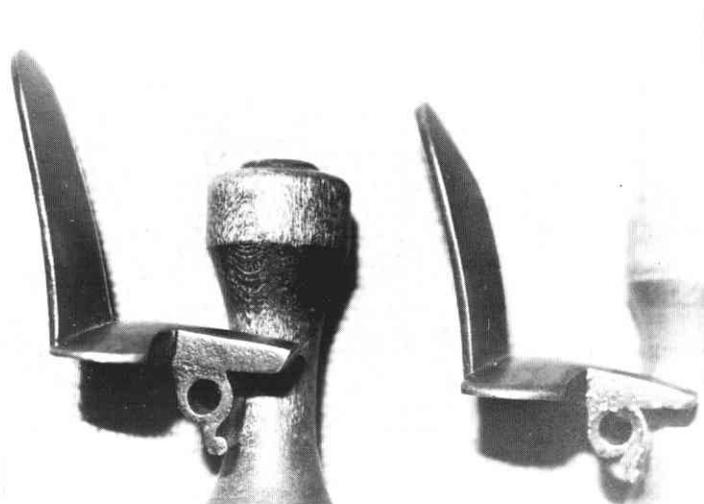
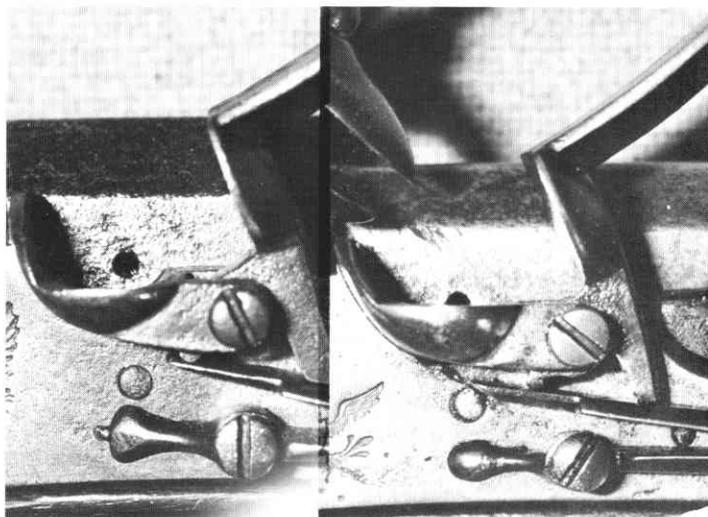


Figure 8: Left, 1803; right, 1814 frizzens.



Figures 9 and 10: The pans differ considerably when viewed close-up.



Figure 11: The right buttstock (1803) has much less comb than the left (M1814), as well as the differences in the cheekpieces.

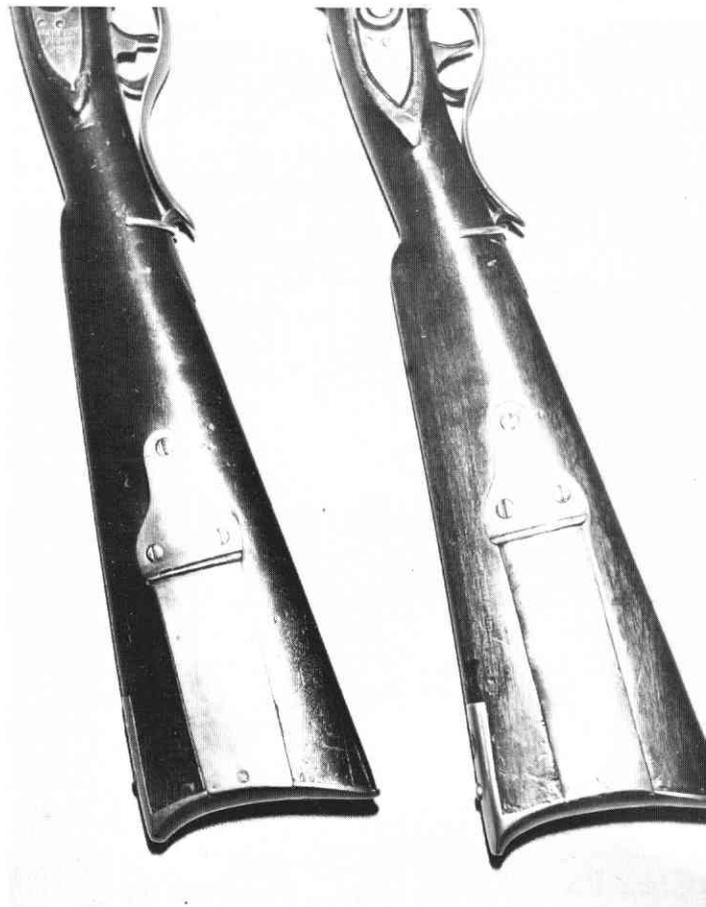


Figure 12: Right sides of the stocks, showing differences. M1803 on left

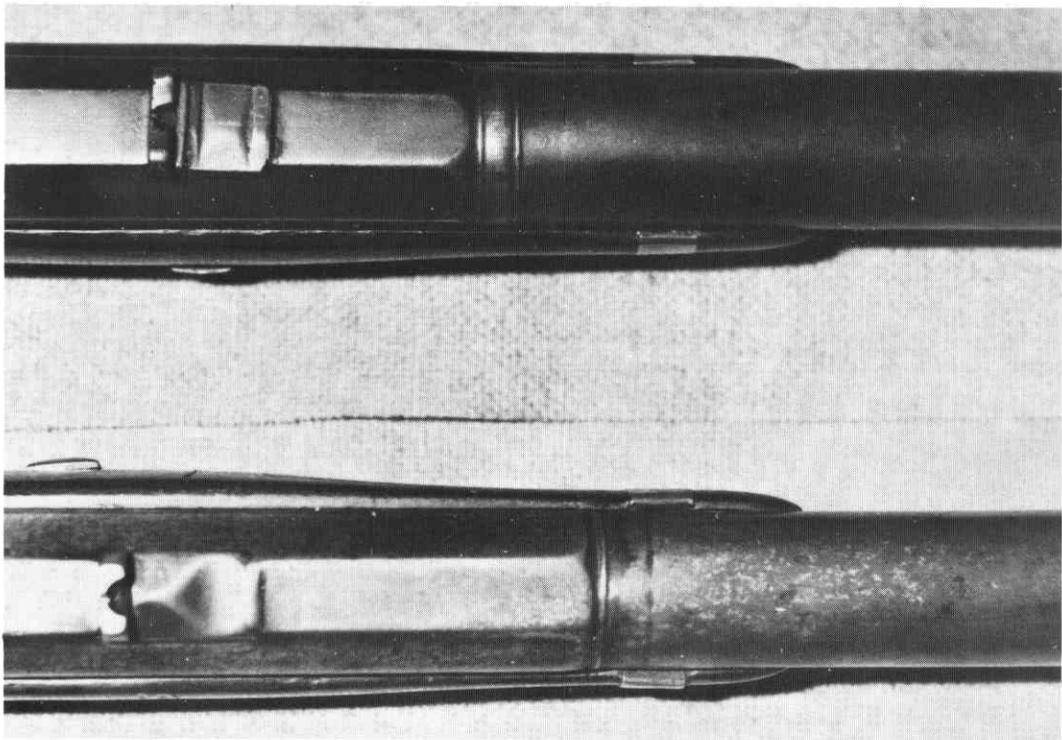


Figure 15: Differences in the rear sights: M1803 on top.

The shape of the REAR SIGHTS also differs materially: the patchbox is lengthened in the 1814 and the spring release mechanism is improved. All these features are shown in figures 12, 15 and 16. Figure 12 shows the butt with plates removed and the different springs can be seen, one secured by a screw and the 1803 held into the stock by a stud projecting into the stock. The barrels are lengthened in the 1814 model, and I have not heard of one with the 36" barrel having a lockplate date earlier than 1817. Attention to this detail will be necessitated in the future. It appears that the late production of the 1814 model is considerably rarer than those with short barrels and 1815 and 16 dates.

In summary, I hope that I have enlightened you about rifles that have heretofore been classed as virtual duplicates, hand made guns with differences not worthy of mention, and not susceptible to being classed apart as different Models. If that be the case, then who can justify calling a Colts Old Model Hoslter Pistol a Dragoon, much less a First Model, Second Model or Third Model Dragoon. It occurs to me that we may attack any name that is appropriate which does not contradict historical reference and which is adequately descriptive. Therefore, I have preferred to stay with Major Hicks' model designations, believing them to be more descriptive and more easily expressed than any other suggested. I urge those of you who own specimens to check yours against the points mentioned here, and, hopefully, we will be able to establish a consistency as proof of my contentions and greatly enlarge the sample. If anyone has any historical data or correspondence relating to the subject which would add to it, I would be grateful to know of it. Thank you for your attention.

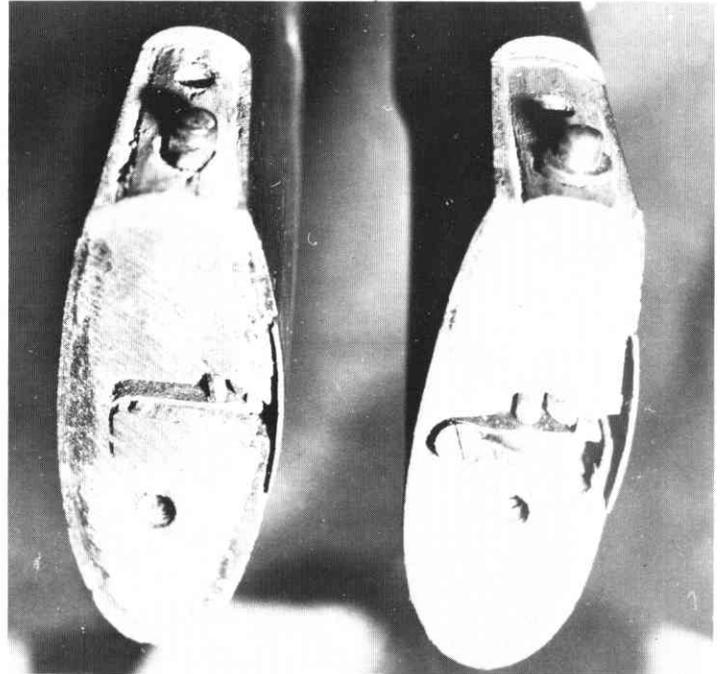


Figure 12: Internal differences in the patch box mechanism. M1803 to left.



Figure 13: M1803 barrel markings.

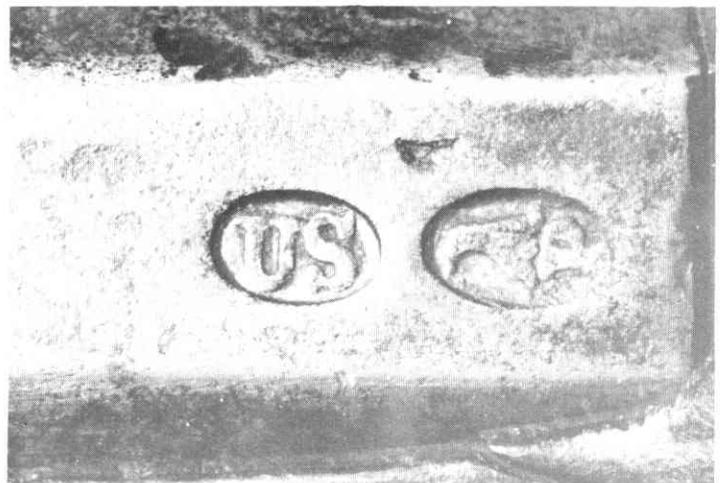


Figure 14: M1814 barrel markings.