



Figure 1. The 82 Springfield muskets produced from 1810 to 1822 that were gathered for the Pittsburgh study.



Figure 2. Burton Kellerstedt recording data from one of the Springfield muskets included in the study.

Springfield Muskets from 1810 through 1822: The Pittsburgh Study

Spender

Eighty flintlock muskets produced at Springfield Armory from 1810 through 1822 were brought together at the October 1998 meeting of the American Society of Arms Collectors in Pittsburgh. The study and this paper were the joint effort of Vern Eklund, Burton Kellerstedt, George Moller, William Reid, and Robert Sadler III. Other members who contributed muskets to the study were Dean Boorman, David Carter, Peter DeRose, Bill Gavin, Steve Marvin, Ted Myers, Eldon Owens, Jonathan Peck, Elmo Phillips, Norm Schaefer, Mark Skolnic, and Peter Wainwright. The object of the study was to compare Springfield standard infantry muskets and determine the evolution of arms from 1810 through 1822. The study is categorized by generally accepted collector model designations as defined in *American Military Shoulder Arms, Volume II*, by George D. Moller, and the study results are reported in detail for advanced Springfield collectors.

The designation of types 1, 2, 3, 4, and 5 eagle lockplate dies is used to show the progression to standardization for this study only. Pictures of these and the three types of sling swivels are included for reference. The typical oval cheek recess or cutout on the left side of the buttstock was noted on Model 1812 muskets and some late Model 1795 Type IV muskets. These recesses varied considerably in size and depth, from a very shallow to a very deep depression, as is shown in the illustrations. Very shallow and shallow cheek recesses have been noted in 1813-assembled muskets. Muskets other than standard infantry muskets are addressed at the end of this article. Dates noted are the assembly dates indicated on the butt plates or barrel tangs.

MODEL 1795 TYPE III

26 Muskets Reviewed Dating From 1809 to 1813

The muskets reviewed generally conform to previously written descriptions. More variance in measurements was observed and is detailed below. Four different eagle lockplate dies were noted. In 1813 assembled muskets, both Type III and Type IV muskets were observed.

Lockplate Eagle: A mixture of types 1, 2, and 3 eagle dies are found on muskets through 1812. In 1813 only type 4 eagles were noted.



Cock: Only flat-surfaced cocks were observed.

Barrel: Lengths from $43\frac{15}{16}$ " to $44\frac{13}{16}$ "

Tang lengths from $2\frac{3}{16}$ " to $2\frac{5}{8}$ "

Muzzle extension from $3\frac{1}{16}$ " to $3\frac{9}{16}$ "

Bayonet stud from muzzle $1\frac{1}{4}$ " to $1\frac{7}{16}$ "

Trigger Guard: Length from $10\frac{1}{2}$ " to $11\frac{1}{16}$ "

Side Plate: Length from $3\frac{15}{16}$ " to $4\frac{1}{16}$ "

Butt Plate Tang: Length from $2\frac{1}{4}$ " to $2\frac{3}{8}$ "

Stock Wrist: Circumference from $4\frac{7}{8}$ " to $5\frac{3}{8}$ "

Barrel Bands: Flat with rounded edges

Sling Swivels: Wire, screw, and rivet sling swivels were all used on all 1795 Type III muskets.

MODEL 1795 TYPE IV

8 Muskets Reviewed Dating From 1813 to 1815

As noted in other descriptions of 1795 IV muskets, components and styling of Models 1795 and 1812 were randomly observed.

Lockplate Eagle: All were type 4.

Cocks: Both flat-surfaced and convex-surfaced cocks were observed. All 1815-assembled muskets had convex-surfaced cocks.

Barrel: Length from $41\frac{9}{16}$ " to $42\frac{3}{4}$ "

Tang length from $2\frac{7}{16}$ " to $2\frac{1}{2}$ "

Muzzle extension from $3\frac{1}{8}$ " to $3\frac{11}{16}$ "

Bayonet stud from muzzle $1\frac{3}{8}$ " to $1\frac{9}{16}$ "

Trigger Plates: Length from $10\frac{5}{8}$ " to 11"



Figure 3. The eagle designated "type 1" for the study, shown on an 1812-dated musket.



Figure 4. A "type 2" eagle on an 1810-dated musket.

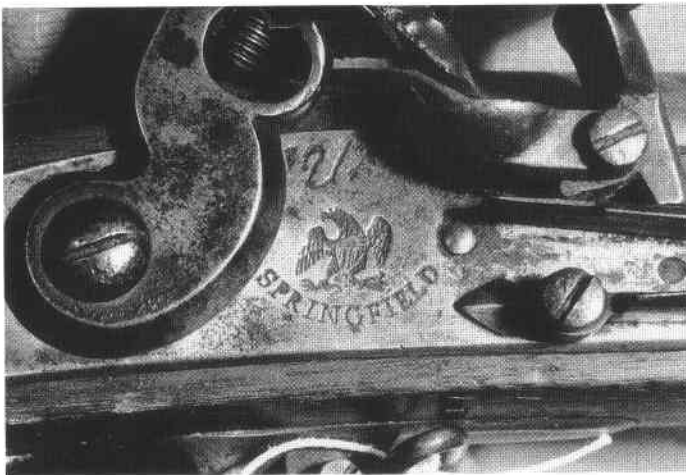


Figure 5. A "type 3" eagle on an 1812-dated musket.

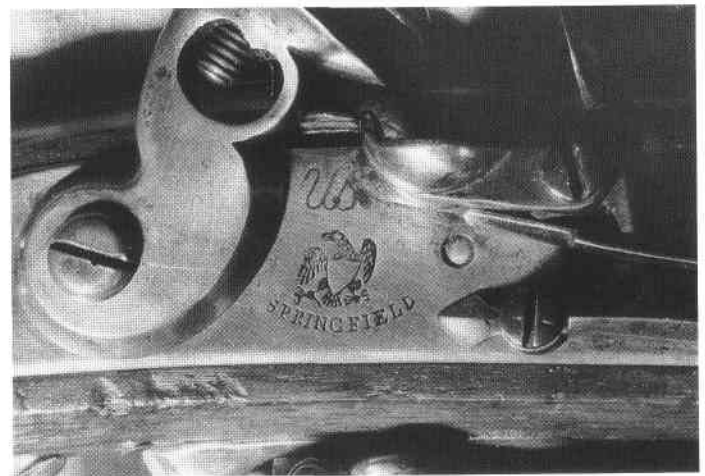


Figure 6. A "type 4" eagle on an 1813-dated musket.

Side Plate: Length from $3\frac{7}{8}$ " to 4"
Butt Plate Tang: Length from $2\frac{5}{16}$ " to $2\frac{7}{16}$ "
Stock Wrist: Circumference from $5\frac{1}{4}$ " to $5\frac{1}{2}$ "
Barrel Bands: Both flat with rounded edges and flat
Sling Swivels: 7 screw-type, 1 riveted

MODEL 1812 TYPE I

2 Muskets Reviewed Dated 1815

Of the two examples both had 1812 locks dated 1815; however, one had a $41\frac{3}{4}$ " barrel and the other a $44\frac{9}{16}$ " barrel.

Lockplate Eagle: Both were type 4.
Cocks: Convex-surfaced
Barrel: Length from $41\frac{3}{4}$ " to $44\frac{9}{16}$ "
 Tang length from $2\frac{7}{16}$ " to $2\frac{9}{16}$ "
 Muzzle extension from $3\frac{1}{2}$ " to $3\frac{9}{16}$ "
 Bayonet stud from muzzle $1\frac{1}{2}$ " to $1\frac{9}{16}$ "

Trigger Guard: Length from $10\frac{1}{16}$ " to $10\frac{7}{8}$ "
Side Plate: Length from $3\frac{7}{8}$ " to $4\frac{1}{8}$ "
Butt Plate Tang: Length from $2\frac{3}{8}$ " to $2\frac{1}{2}$ "
Stock Wrist: Circumference from $5\frac{1}{4}$ " to $5\frac{3}{4}$ "
Barrel Bands: One flat with rounded edges, one flat
Sling Swivels: Screw-type

MODEL 1812 TYPE II

13 Muskets Reviewed Dating From 1815 to 1816

Of the 13 muskets in this group, four had Model 1795 Type III altered locks dated 1813. One of these still had the projecting point at the lockplate's rear. The profiles of the other three lockplates had been changed to the Model 1812 pattern by the removal of the projecting points. All muskets with locks dated 1813 were assembled in 1816.

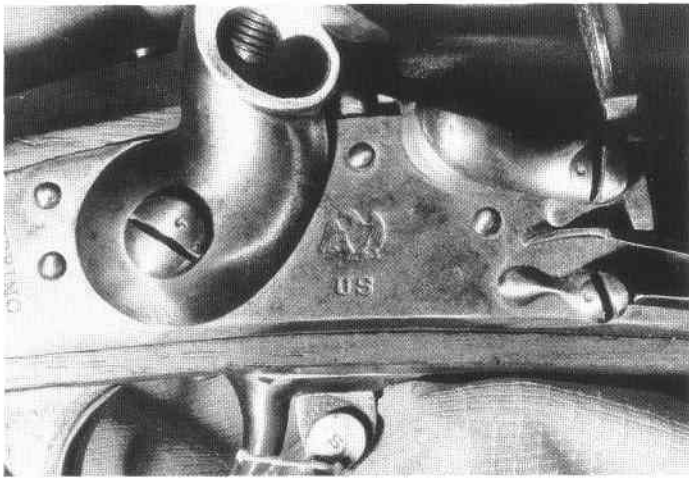


Figure 7. A "type 5" eagle on an 1822-dated musket.

Lockplate Eagle: All were type 4.

Cocks: Convex-surfaced with the exception of the 1813-dated locks, which are flat

Barrel: Length from 41 $\frac{3}{4}$ " to 42"

Tang length from 2 $\frac{3}{8}$ " to 2 $\frac{7}{16}$ "

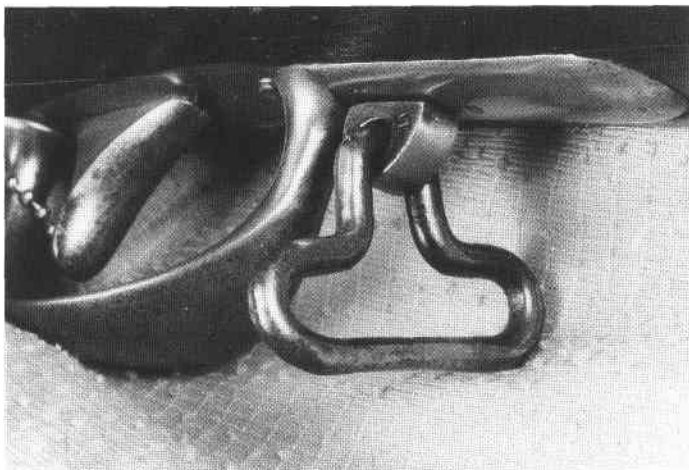


Figure 8. Welded wire sling swivel.

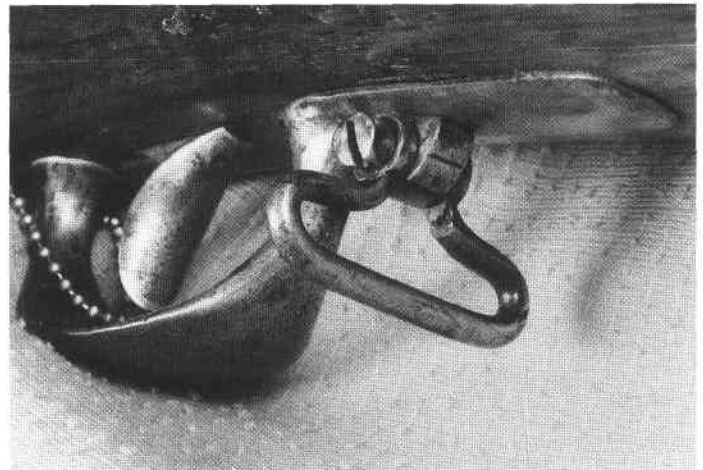


Figure 9. Screw-type sling swivel.



Figure 10. Riveted sling swivel.

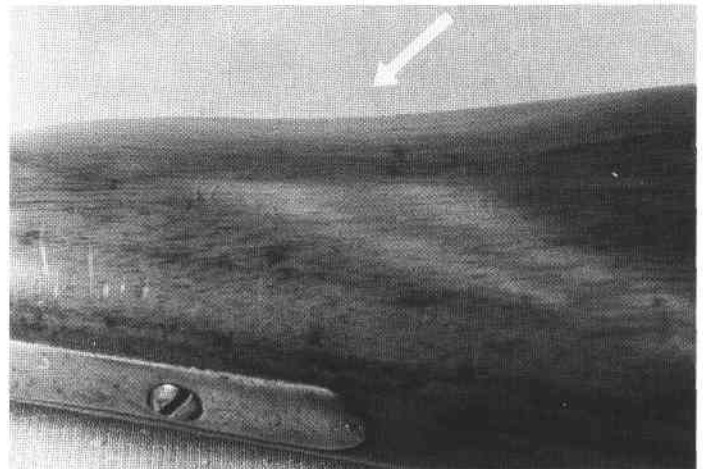


Figure 11. Shallow cheek recess.

Muzzle extension from 3 $\frac{3}{8}$ " to 3 $\frac{11}{16}$ "

Bayonet stud from muzzle 1 $\frac{3}{8}$ " to 1 $\frac{1}{16}$ "

Trigger Guard: Length from 10 $\frac{3}{4}$ " to 11 $\frac{1}{16}$ "

Side Plate: Length from 3 $\frac{7}{8}$ " to 3 $\frac{15}{16}$ "

Butt Plate Tang: 2 $\frac{3}{16}$ " to 2 $\frac{3}{8}$ "

Stock Wrist: Circumference from 5" to 5 $\frac{1}{2}$ "

Barrel Bands: Flat

Sling Swivels: Screw type

MODEL 1812 TYPE III

16 Muskets Reviewed Dating From 1816 to 1818

Assembly dates began to be stamped into the breech tang in 1817. No 1817-dated muskets had the high-comb buttstock with cheek recess; they were equipped with low Model 1816-style combs. In 1818, both 1812 Type III and 1816 transitional muskets were assembled.

Lockplate Eagle: Through 1816 type 4 eagles were used. In 1817 only one type 4 eagle was noted. Type 5 eagles were used to the end of this study period.

Cock: Convex-surfaced

Barrel: Length from $41\frac{7}{8}$ " to $42\frac{1}{8}$ "

Tang length from $2\frac{1}{16}$ " to $3\frac{5}{8}$ "

Muzzle extension length from 3" to $3\frac{5}{8}$ "

Bayonet stud from muzzle $1\frac{1}{8}$ " to $1\frac{1}{16}$ "

Trigger Guard: Length from $9\frac{3}{4}$ " to 11"

Side Plate: Length from $3\frac{13}{16}$ " to $4\frac{3}{8}$ "

Butt Plate Tang: Length from $2\frac{3}{16}$ " to $2\frac{5}{16}$ "

Stock Wrist: Circumference from $5\frac{1}{4}$ " to $5\frac{5}{8}$ "

Barrel Bands: Flat with rounded edges

Sling Swivels: Both screw-type and rivets

MODEL 1816 TRANSITION

5 Muskets Reviewed Dating From 1818 to 1819

One musket was observed with an iron pan and rounded lockplate.

Lockplate Eagles: All were type 5.

Cock: Convex-surfaced

Barrel: Length from 42" to $42\frac{1}{8}$ "

Tang length from $2\frac{1}{16}$ " to $2\frac{1}{8}$ "

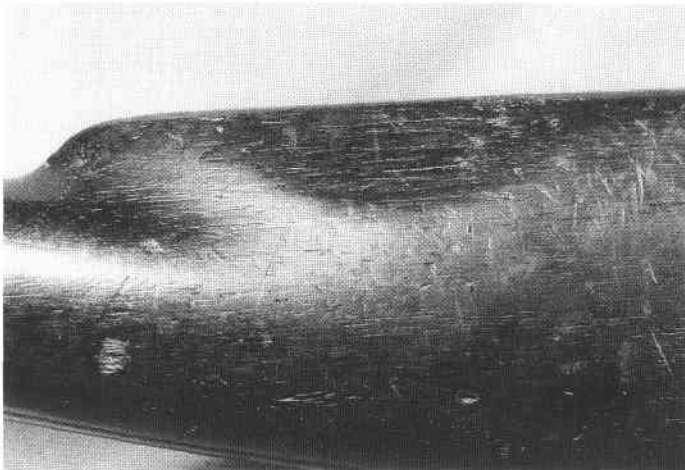


Figure 12. Shallow-to-medium cheek recess.

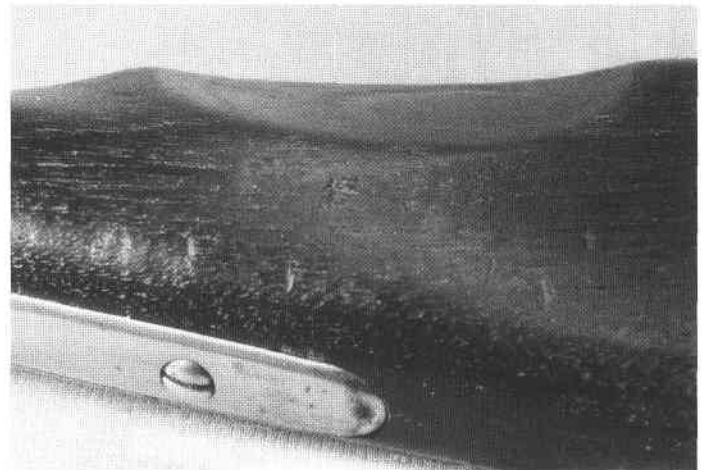


Figure 13. Medium cheek recess.

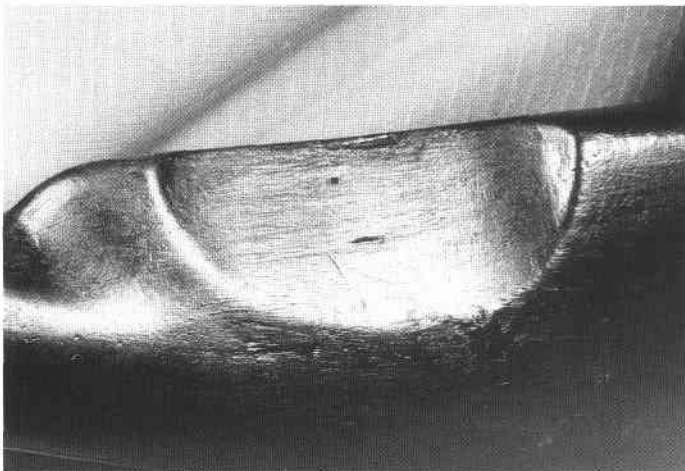


Figure 14. Deep cheek recess.

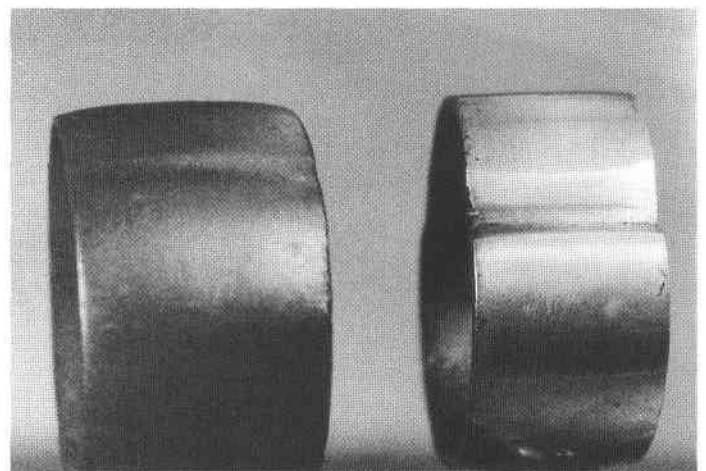


Figure 15. Rounded versus flat barrel bands.

Muzzle extension length from $3\frac{1}{16}$ " to $3\frac{1}{8}$ "

Bayonet stud from muzzle $1\frac{1}{8}$ " to $1\frac{1}{2}$ "

Trigger Guard: Length from $9\frac{13}{16}$ " to $9\frac{15}{16}$ "

Side Plate: Length from $4\frac{5}{16}$ " to $4\frac{3}{8}$ "

Butt Plate Tang: Length from $2\frac{1}{4}$ " to $2\frac{5}{16}$ "

Stock Wrist: Circumference from $5\frac{5}{16}$ " to $5\frac{1}{2}$ "

Barrel Bands: Flat with rounded edges

Sling Swivels: Rivets

MODEL 1816 TYPE I

5 Muskets Reviewed Dating From 1819 to 1822

No major variance from previously published material was noted.

Lockplate Eagle: All were type 5.

Cock: Convex-surfaced

Barrel: Length from 42" to $42\frac{1}{8}$ "

Tang length from $2\frac{1}{16}$ " to $2\frac{3}{16}$ "

Muzzle extension length from 3" to $3\frac{3}{16}$ "

Bayonet stud from muzzle $1\frac{1}{8}$ " to $1\frac{1}{4}$ "

Trigger Guard: Length from $9\frac{3}{4}$ " to $9\frac{15}{16}$ "

Side Plate: Length from $4\frac{5}{16}$ " to $4\frac{3}{8}$ "

Butt Plate Tang: Length from $2\frac{1}{4}$ " to $2\frac{5}{16}$ "

Stock Wrist: Circumference from $5\frac{3}{16}$ " to $5\frac{3}{8}$ "

Barrel Bands: Flat

Sling Swivels: Rivets

SPECIAL MUSKETS

Several muskets not conforming to the categories listed above were present at the study. They are briefly described below:

1812 Pattern (one musket): This is an 1813-dated/assembled musket. It has a brass pan, a $42\frac{3}{16}$ " barrel, an 1812 stock with cheek recess, and stud barrel bands. This is one of Springfield's seven model muskets for what was intended to be the Model 1812 musket. Twenty-four similar muskets had previously been fabricated at Harpers Ferry. As produced in quantity, the Model 1812 muskets didn't utilize many of this musket's features. This musket's features would again be incorporated in the pattern muskets made at Springfield in 1815 and thereafter, upon which the Model 1816 was based. The features that were incorporated into the Model 1812 II musket include the stud band retainers, band configuration, the lockplate's rear profile, the convex-surfaced cock, and the stock's high comb with cheek recess. The Model 1816 included the lockplate's convex rear surface, inclined brass pan, and a number of others.

Model 1812 Type II (two muskets): These have $38\frac{1}{2}$ " barrels, and the lock and assembly date is 1815. No documentation is known to exist for these muskets.

Model 1817 Artillery/Cadet Musket Type I (one musket):

This has a lock and assembly date of 1817, a $36\frac{1}{16}$ " barrel, and two barrel bands.

Model 1817 Artillery/Cadet Musket Type II (one musket):

This has an 1811-dated lock, an 1820 assembly date, a 36" barrel, and three barrel bands.

SUMMARY

From 1810 through 1822, Springfield muskets progressed through three model changes and eight subtypes, from the Model 1795 Type III to the Model 1816 Type I. Springfield's production of new muskets stopped for several months in 1813. When it resumed, Model 1795 muskets were assembled from components on hand. As these leftover components were exhausted, new components of Model 1812 configuration were gradually incorporated into the production of the musket. When these included the Model 1812 lock, the resulting muskets are referred to as the Model 1812 Type I musket. When they included the stud-type bands, they are referred to as the Model 1812 Type II musket. The evolution in improved manufacturing procedures is evident in closer tolerances for various components as outlined above. By 1822 tolerances were within $\frac{1}{16}$ of an inch, whereas tolerances for earlier models could vary up to an inch. Although the later weapons had certainly not reached the stated U.S. Government goal of having parts interchangeability, a slow but steady progress is evident from this study.