

Spencer Sporting Rifles

By Matt Sears

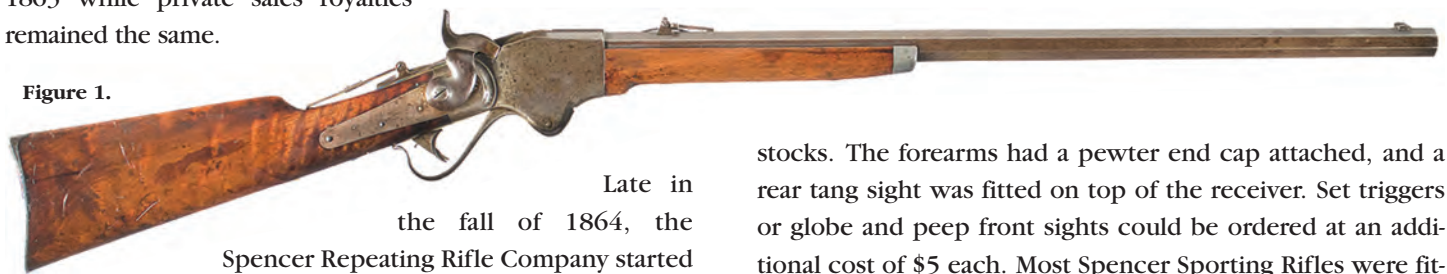
Company Overview

The Spencer Repeating Rifle Company was in existence for a relatively short period of time, from inception in January 1862 until completion in December 1868. During these short six years the company focused on production of military contract rifles and carbines, eventually providing 13,474 rifles and 64,692 carbines to the government during the Civil War and subsequent Indian Campaigns. The first military contract for 10,000 rifles was in December 1861, and although initially promised for March 1862, the first delivery of 500 rifles to the Army was not until December 31, 1862.

Surprisingly, C. M. Spencer did not have a financial interest in the company because he had sold the rights to his repeating rifle May 10, 1861 to Charles Cheney. Spencer initially received a royalty of \$1 for each rifle sold and even reduced that to \$.50 per government contract rifle as of December 1863 while private sales royalties remained the same.



Figure 1.



Late in the fall of 1864, the Spencer Repeating Rifle Company started producing repeating rifles with a seven round tube magazine that chambered rimfire .44 caliber (.56-46) cartridges. These “early model” Sporting Rifles were by special order only and utilized leftover military M1860 rifle receivers. They are easily identified by their serial numbers on top of the receivers which are hidden by the addition of the rear tang sight. The exact production number is unknown but a reasonable assumption would be that less than 100 “early model” rifles were manufactured.

At the end of the Civil War in 1865, full factory production of sporting rifles began using newly forged receivers. These “late model” Sporting Rifles have a unique set of serial numbers off-set next to the rear tang as their distinguishing feature (Figure 1). The exact production totals are unknown but existing specimens indicate less than 1,900 rifles over a three year postwar period.

Spencer Sporting Rifles could be ordered with either round or octagonal barrels in 26”, 28” or 30” lengths. Longer barrels, although rare, sometimes appeared by special order. All barrels have six lands and grooves with a right hand twist. These rifles were fitted with higher grade burl walnut

stocks. The forearms had a pewter end cap attached, and a rear tang sight was fitted on top of the receiver. Set triggers or globe and peep front sights could be ordered at an additional cost of \$5 each. Most Spencer Sporting Rifles were fitted with a Spencer cut-off device on top of the block that allowed single fire operation if desired. It was also possible to have the rifle chambered for a .50 or .52 caliber rimfire cartridge by special order of six rifles minimum. These Sporting Rifles had a sales price of \$45 for a 26” round barrel rifle up to \$52 for a 30” octagon barrel rifle.

The demise of the company and the end of the Sporting Rifle factory production was mainly due to demand. The breechblock would not accept longer, more powerful cartridges that were being utilized on the frontier which resulted in decreasing sales. In addition, the large government contracts expired so the Spencer Repeating Rifle Company’s market decreased. The company’s assets and machining equipment were sold to the Fogerty Repeating Rifle Company of Boston in December 1868, which was acquired by the Winchester Repeating Arms Company in August 1869.

Christopher Miner Spencer

Christopher Miner Spencer (Figure 2) was born June 20, 1833 in Manchester, Connecticut. He was one of eight children.



Figure 2. (left) circa 1862, age 29; (center) circa 1888, age 55; (right) circa 1918, age 85.

At the age of 14, Spencer went to work for the Cheney Brothers, silk manufacturers in South Manchester, Connecticut. He trained as a journeyman's apprentice and became a skilled machinist. After leaving the Cheney Brothers he went to work for Colts Armory, in Hartford, Connecticut. In the late 1850s he conceived his idea for the repeating rifle and wasn't involved with the Spencer Rifle Company until his late 20's.

Spencer sold the rights to his repeating rifle patent to Charles Cheney May 10, 1861 for \$5,000 and \$1 per rifle royalty (Figure 3). This ended his direct involvement with the Spencer Rifle Company ownership.

During his long life, Spencer was always more of an inventor than a business owner. He was a prolific inventor with 42 patents. Not all of these were firearm related and included a wide range of manufacturing processes. Some of the more important inventions included:

- Spooling bobbins & thread equipment (1859)
- Repeating Spencer firearms (1860)
- Fully automatic turret lathe, the "Spencer automatic screw machine" (1873) (Figure 4)
- Slide action rifle and shotgun (1882)
- Steam powered "horseless carriage" automobile (1902)

Christopher Miner Spencer died January 14, 1922 in Windsor, Connecticut. He was 89 years old.

The Spencer Repeating Rifle Company

The Spencer Repeating Rifle Company was very short lived (Jan 1862 to Dec 1868) and only survived 6 years. The total production included 13,374 military contract rifles, 64,692 military contract carbines, and about 2,000 sporting rifles.

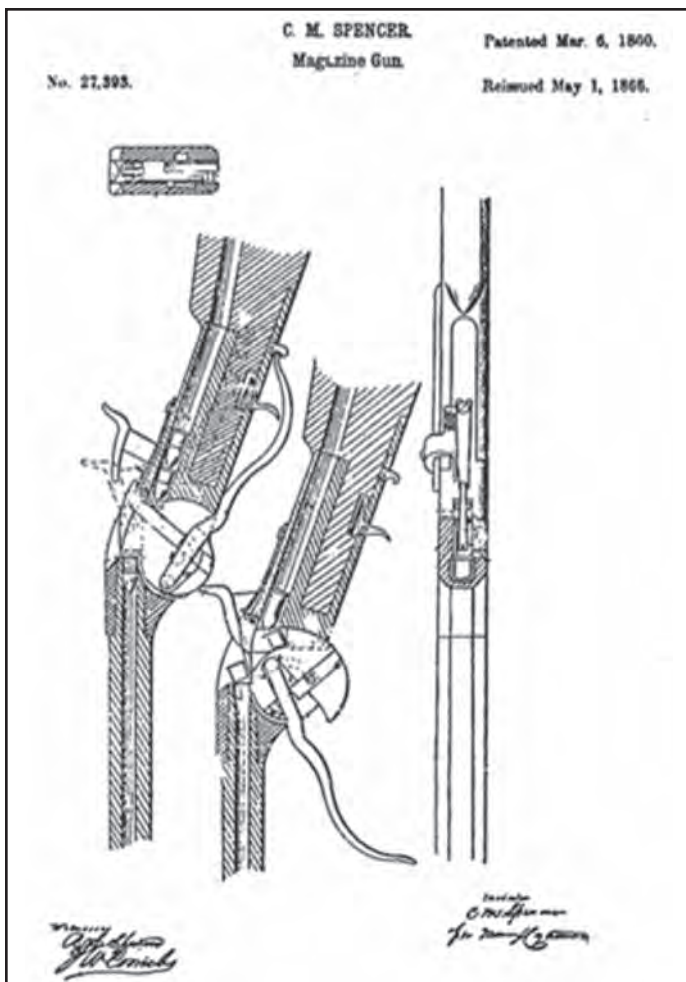


Figure 3. Original Spencer Patent 27393, March 6, 1860.

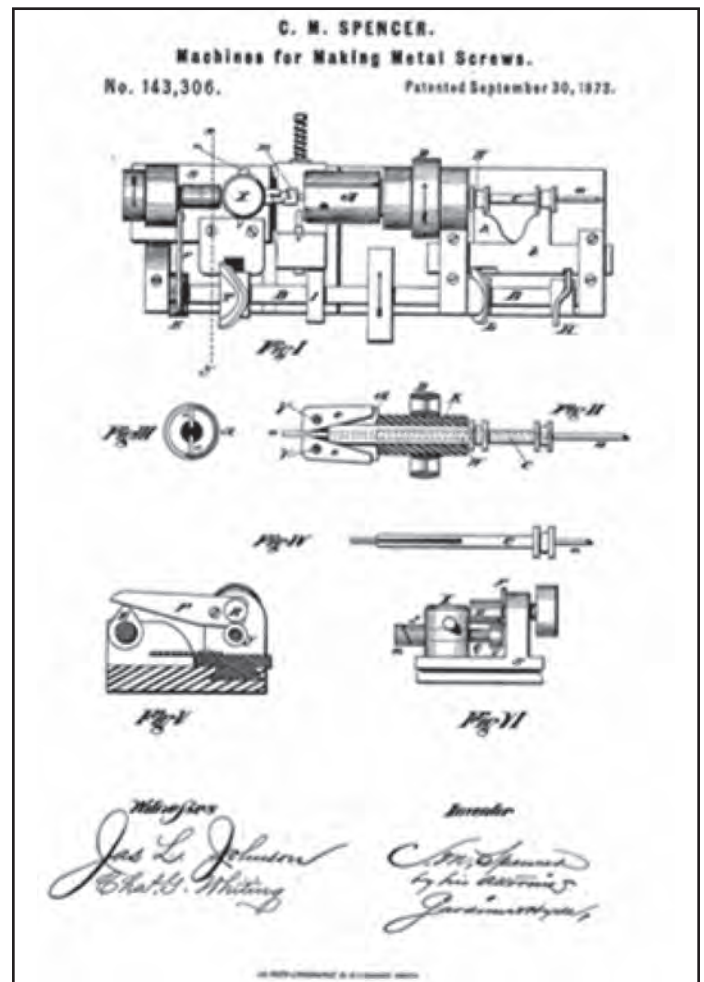


Figure 4. Spencer Patent 143306, screw machine, September 30, 1873.

Spencer was 29 years old when the company was incorporated in 1862. He was never a director or an officer in the company and primarily was the inventor, agent, salesman and plant superintendent. The actual officers were:

President—Joseph W. Clark
Treasurer—Warren Fisher Jr.

Directors—Charles Cheney, Ward Cheney, Rush Cheney

The company failed in late 1868 due to a lack of military contracts and low sales volume of sporting rifles. It simply could not survive making 300 to 400 sporting rifles a year when it had been producing almost 4,000 military contract arms per month. The factory's machinery was sold to the Fogarty Repeating Rifle Company, of Boston, in December 1868. Fogarty was acquired by Oliver Winchester, of the Winchester Repeating Arms Company, on August 6, 1869. The sales amount was approximately \$127,000.

The Other Spencer Related Companies

Spencer was associated with five other companies during his lifetime.

Roper Repeating Rifle Company, Amherst MA, 1866-1868

Spencer left Boston in 1866 to become a partner with Sylvester H. Roper. The company manufactured 4 shot revolving magazine shotguns (12ga & 16ga) and 8 shot repeating rifles.

Roper Sporting Arms Company, Hartford, CT, 1868-1872

Spencer partnered with C.E. Billings to manufacture 12ga shotguns & .40 caliber rifles.

Billings & Spencer Company, Hartford, CT, 1872-1876

The company was formed in partnership with Charles E. Billings. They manufactured sewing machine shuttles and hand/machine tools.

The Hartford Screw Machine Company, Hartford, CT

This manufacturing company was formed in 1872 and Spencer remained with the company until 1880.

Spencer Arms Company / Spencer Sporting Arms Company, Windsor, CT, 1883-1902

These companies manufactured the first production slide action "pump" 12 gauge shotguns, with Sylvester Roper once again. The company was purchased by Francis Bannerman & Sons, NYC, in 1890, when Spencer was 57 years old.

The Factory

The Spencer Repeating Rifle Company was housed in the Jonas Chickering Building, Piano Forte Manufactory (Figure 5), at the corner of Tremont Street and Camden Street. The massive red brick building was designed by Edwin Payson and constructed in 1853. It occupies an area known as the South End of Boston. The five acre complex was the largest factory in the country at the time and was powered by a central steam plant. In this factory, 400 workers turned out 60 pianos a week. Pianos were made here until 1929.



Figure 5.

The Spencer Armory

The Spencer armory occupied a portion of the South wing in the Chickering Building (Figure 6). It is unknown



Figure 6. The bottom picture is a glass plate photo, circa 1860, by Hawes.

exactly how much space the company had, on what floor or where it was in the South wing. This factory provided an ideal manufacturing facility because of its location and the availability of steam power for the machinery.

The factory is still standing today as shown in these Google images (Figures 7 and 8). It was converted to Artist studios and housing in 1972.

1864 Catalog

Catalogs for the Spencer Repeating Rifle Company were only produced for four years from 1864 to 1867. However, the company existed from January 1862 to December 1868. The first catalog was produced in 1864 with a loose price list inserted (Figure 9). The content was mostly testimonials from noted civilians and military leaders of the day. An interesting note is the statement that the Sporting Rifle was “not made at present” in 1864.

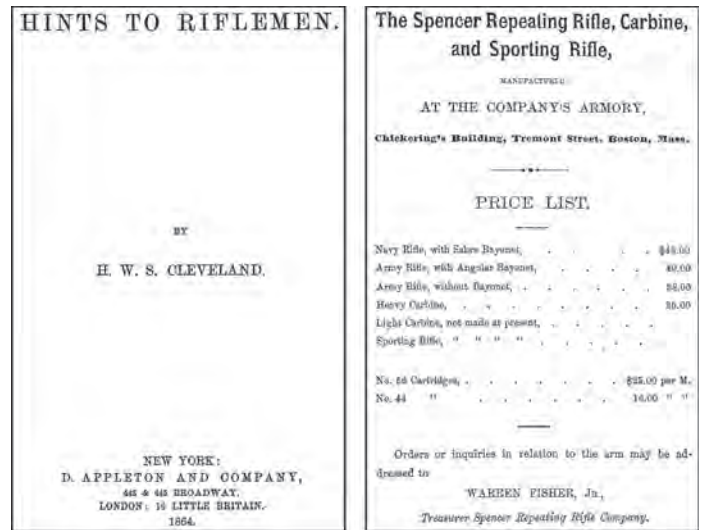


Figure 9.

1866 Catalog

Original Spencer Repeating Rifle Company catalogs are extremely rare and only two are known to exist. This example (Figure 10) was owned by Brigadier General John Pitman, US Ordnance Department. He was famous for compiling the *Pitman Notes on Ordnance*.

Content from the 1866 catalog includes a price list (Figure 11).

Late sales in 1879

Sporting Rifles were still a popular sales item in this 1879 catalog (Figure 12) produced by J.H. Johnson, Great Western Gun Works in Pittsburgh, Pennsylvania. Notice the following two statements in the text of the advertisement (Figure 13): “They are very accurate shooters: for any purpose, such as very large game, Indians, &C.” and for “Deer at 460 yards”, quite a long shot.

Cut-Aways & Parts

Figure 14 displays a parts list and Figure 15 is a Spencer cutaway photo from the Smithsonian Institution.

Sporting Rifles Receiver Address

Figure 16 shows an early Hartford prototype address. Figure 17 displays a Boston Armory standard production address.

Sporting Rifle Stocks

Sporting Rifles were produced with high grade American burl walnut in either an oil or varnish finish (Figure 18).



Figure 7. Aerial view of the Chickering Building today.



Figure 8. The Chickering Building today: front entry on Tremont Street.

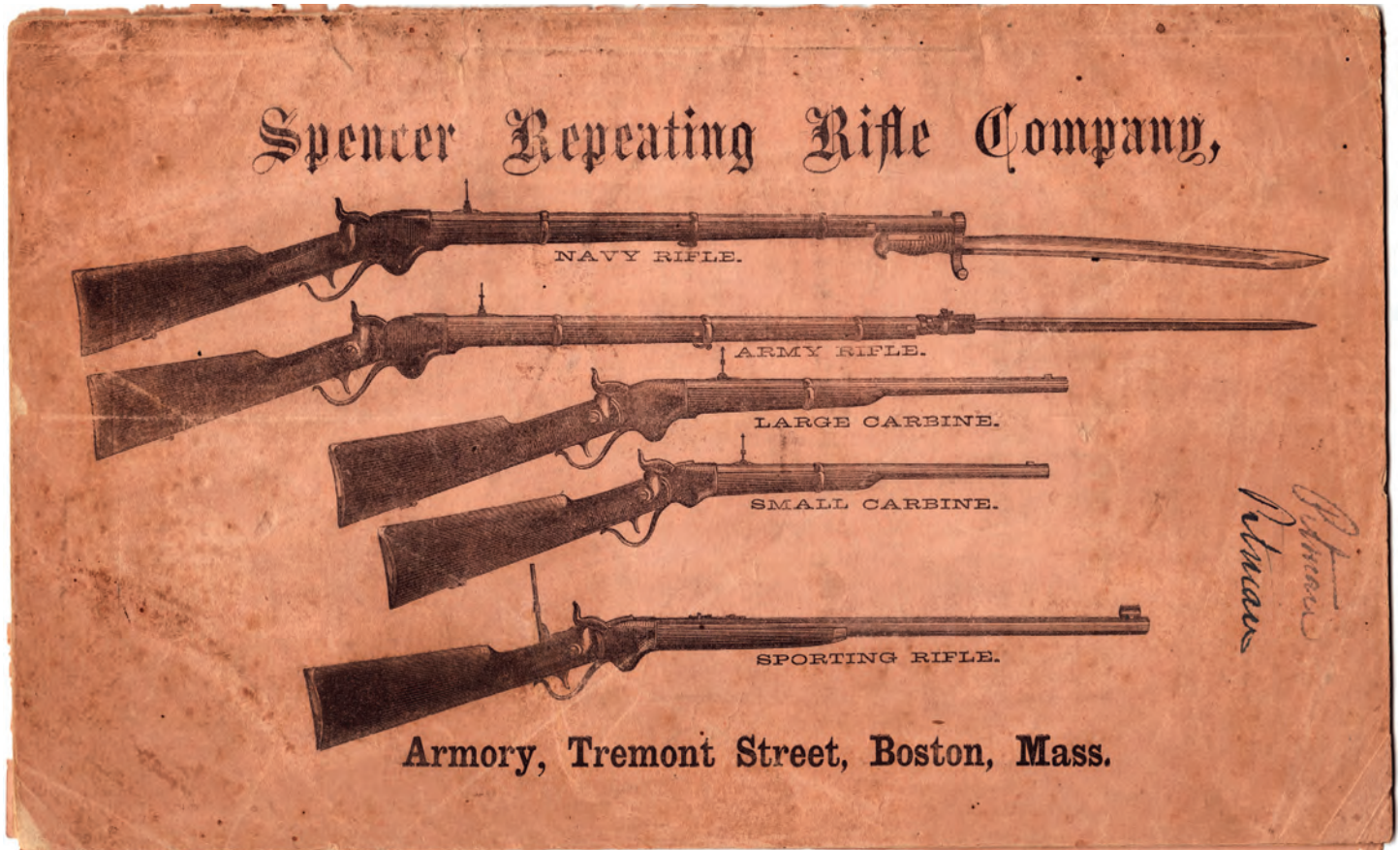


Figure 10. Cover of the 1866 factory catalog.

THE SPORTING RIFLE.

Length of Barrel, 26 in.; Calibre, 44-100 of an inch; Weight, 9 lbs. Price, with Open Sight, \$45; Globe and Peep Sight, \$5, extra. Barrels 28-in. and 30-in. long, 50 cts. extra for each additional inch over 26.

SPORTING RIFLE.—The Sporting Rifle manufactured by the Company is also the same in principle as the other Rifles. It is arranged with globe sights, and is adapted to the longest range. It is finished with the utmost mechanical perfection, and to sporting men, hunters, and frontiersmen, it presents a combination of advantages hitherto unattained by any arm in the world. Length of barrel, 26 in., calibre, .44, weight of ball, $\frac{5}{8}$ oz.

The material used, and the mechanical skill employed in the manufacture of the Spencer Rifle, Carbines and Sporting Rifle, are the very best that can be found in the country, or imported from abroad. No malleable iron is used for any part, and the entire mechanism will challenge a comparison with the work in any Government or private Armory in this country or in Europe.

PRICE LIST

—OF—

Spencer Repeating Rifles, Carbines, &c.

THE ARMY AND NAVY RIFLES.

Length of Barrel, 30 in.; Calibre, 50-100 of an inch; Weight, without Bayonet, 10 lbs. Price, without Bayonet, \$38; with Angular Bayonet, \$40; with Sword Bayonet, \$43.

THE CAVALRY CARBINE.—Ordnance Bureau Model, 1865.

Length of Barrel, 20 in.; Calibre, 50-100 of an inch; Weight, 8½ lbs. Price, \$35.

THE SPORTING RIFLE.

Length of Barrel, 26 in.; Calibre, 44-100 of an inch; Weight, 9 lbs. Price, with Open Sight, \$45; Globe and Peep Sight, \$5, extra. Barrels 28-in. and 30-in. long, 50 cts. extra for each additional inch over 26.

Either of the above Rifles can be made with Barrels of any length desired, and of Calibre 52-100, 50-100, 44-100, provided a sufficient number is ordered.

AMMUNITION.

For either Rifles, Carbines, or Sporting Rifles, per thousand, \$32.

PACKING-BOXES.

For One Rifle, \$1.50; For Ten Rifles, \$3 50.

If 1000 Cartridges are taken there is no charge for Packing-box; a less number, requiring a box, there will be a small charge for box; 250 or less, can be packed in box with a Rifle.

These prices are Cash in Boston; and parties ordering, are requested to forward Checks or Drafts on Boston or New-York, or Post-Office Orders on Boston.

When goods are ordered to be sent with Bill, C.O.D., the expense of collection will be added.

ARMORY SPENCER REPEATING RIFLE COMPANY,
Tremont Street, Boston, Mass., U. S.

Figure 11. Catalog notes.

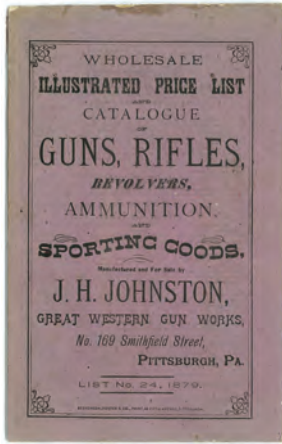


Figure 12.

Sporting Rifle Barrels

Sporting rifles (Figures 19 and 20) could be ordered with a round or octagon barrel, both standard with 6 grooves. Barrel lengths of 26", 28" and 30" are standard although it was possible to order additional length barrels if desired. The barrels were not all a standard length and upon close examination, the actual lengths vary off even dimensions by up to a half inch.

These barrels are not crowned, they simply are not a standardized length as one would expect. Examples of extra long 34" barrels can be seen in Figure 21.

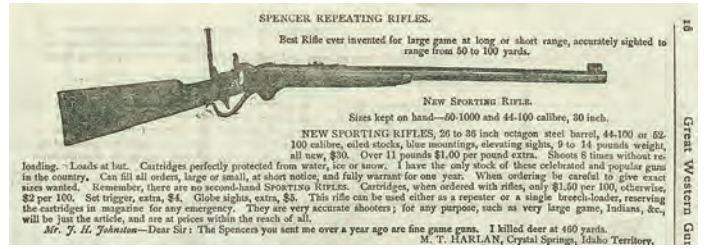


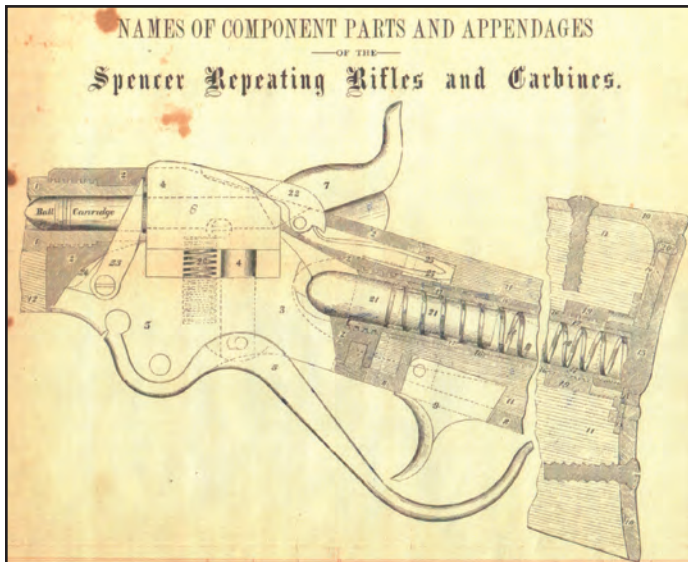
Figure 13. Advertisement in J.H. Johnston 1879 catalog.

Factory Sporting Rifle Front Sights

The sporting rifle's front sight was a standard post in dovetail notch. It was always placed 1-1/16" (center of dove tail notch) from barrel end. The sight came fitted with a slip-on hood, which is easily detached. These hoods are rarely encountered. The only one to my knowledge is on the Frank Cheney cased specimen shown in Figure 22.

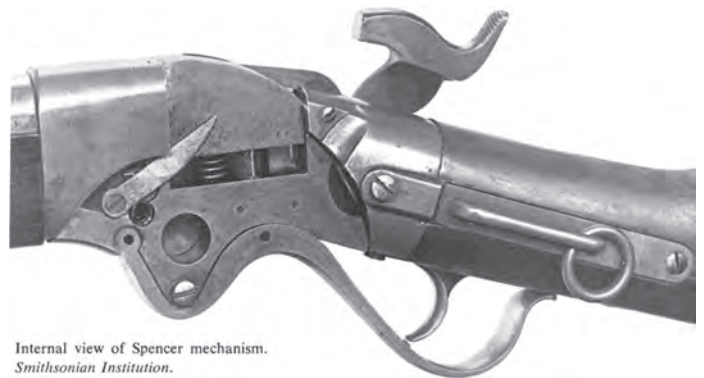
Aftermarket Front Sights

Sporting rifles are commonly encountered with a wide variety of aftermarket sights (Figure 23). Sometimes these



NAMES OF COMPONENT PARTS AND APPENDAGES		OF THE	
Spencer Repeating Rifles and Carbines.			
1	Barrel.	20	Magazine Lock.
2	Front Sight.	21	Spring.
3	Silver Pin.	22	Spring Screw.
4	Barrel Stud.	23	Catch.
5	Screw.	24	Screw.
6	Receiver.	25	Outer Tube.
7	Carrier Block.	26	Inner
8	Screw.	27	Spring.
9	Breech Pin.	28	Nut.
10	Guard Lever.	29	Lock Spring-pin.
11	Screw.	30	Cartridge Follower.
12	Percussion Slide.	31	Screw.
13	Screw.	32	Guide.
14	Lock Plate.	33	Screw.
15	Screw.	34	Shell Drawer.
16	Hammer.	35	Screw.
17	Bridle.	36	Cartridge Stop.
18	Screws, (2.)	37	Pins, (2.)
19	Tumbler.	38	Guide Spring.
20	Screw.	39	Screw.
21	Sear.	40	Breech Pin Spring.
22	Screw.	41	Swivels, (2.) 1 in. Diameter.
23	Stirrup.	42	Screws, (2.) 1 in. Diameter.
24	Screw.	43	Base.
25	Main Spring.	44	Screws, (2.)
26	Screw.	45	Swivel Bar.
27	Trigger Plate.	46	Plate.
28	Screws, 1 1/2 in. Diameter.	47	Screw.
29	Trigger.	48	Ring.
30	Screw.	49	Ferrule.
31	Butt Plate.	50	Screw.
32	Screws, (2.)	51	Upper Band.
33	Butt Stock.	52	Middle
34	Tip.	53	Lower
35	Escutcheons, (2.) 1 in. Diameter.	54	Band Springs, (3.) 1 in. Diameter.
36	Sight Leaf.	55	Bayonet.
37	Screw.	56	Clasp.
38	Slide.	57	Screw.
39	Base.	58	Brush.

Figure 14. Factory parts list.



Internal view of Spencer mechanism. Smithsonian Institution.

Figure 15.



Figure 16.

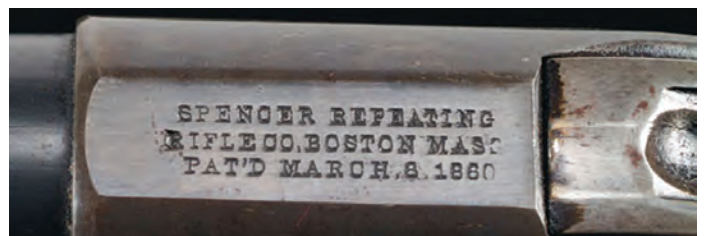


Figure 17.



Figure 18.

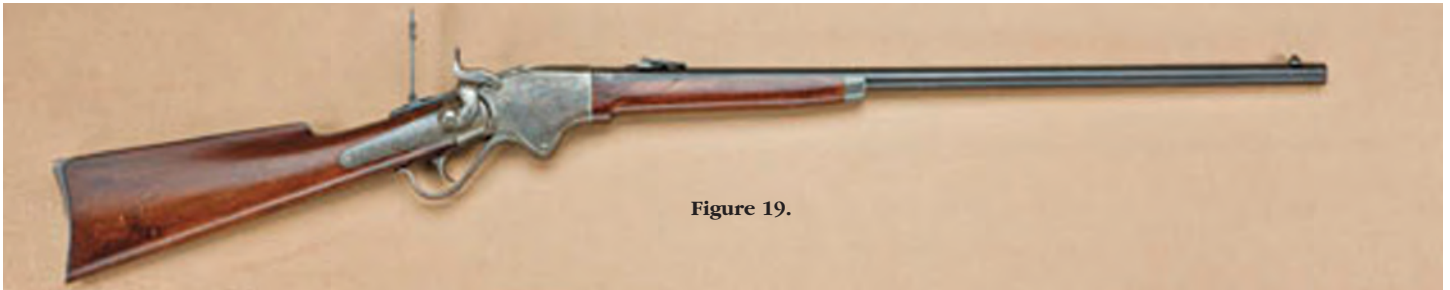


Figure 19.

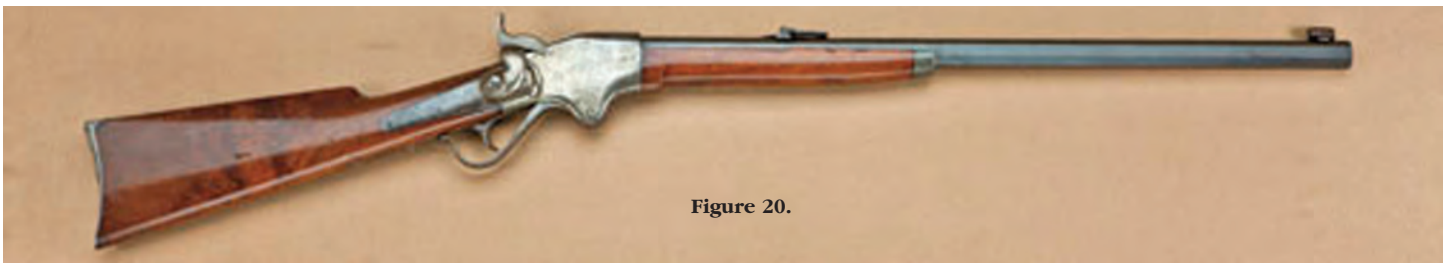


Figure 20.



Figure 21. 34" Spencer Sporting Rifles. Top: #1526 Early Model, round barrel in .50 cal (Matt Sears collection); Middle: #1258 Late Model, octagon barrel in .44 cal (George Carr collection); Bottom: #1232 Late Model, octagon barrel in .50 cal (George Carr collection).

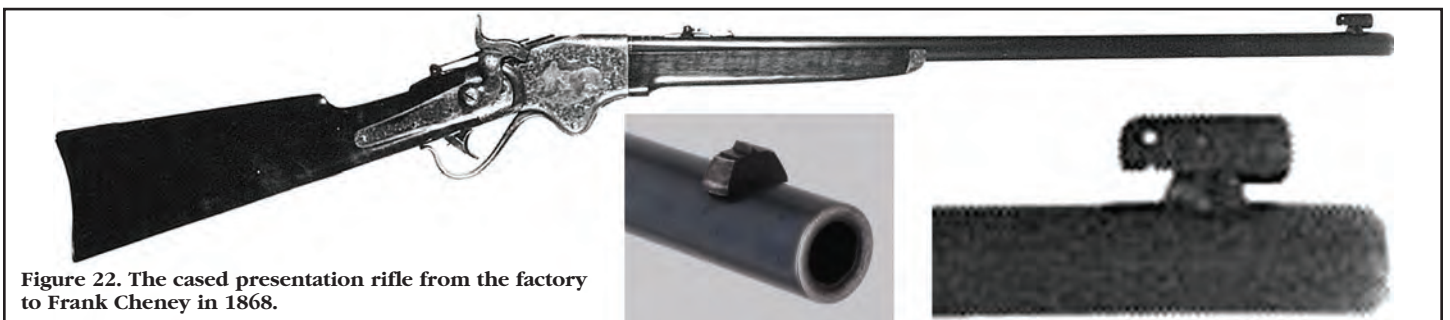


Figure 22. The cased presentation rifle from the factory to Frank Cheney in 1868.



Figure 23.

use the original post design and simply add a blade but usually a new dovetail with a custom design replaces the original sight. Globe or peep sights were popular. Occasionally you will also find a target variety with windage adjustments and even a spirit level.

Rear Barrel Sights

Rear barrel sights are found in three varieties issued by the factory. This was driven by pure economics and the desire to use up any available parts. The standard



Figure 24. Model 1860.



Figure 25. Model 1865.



Figure 26. Model 1860 smooth.

and most frequently encountered is the Model 1860 (Figure 24), which features a round top and graduations to 800 yards. Model 1865 sights (Figure 23), with concave tops, as well as M1860 smooth versions without graduations are also occasionally seen (Figure 26).

Sporting rifles have the rear sights mounted in two positions on the barrel, rear position (Figure 27) and forward position (Figure 28). I do not have an explanation for the two positions because they do not follow a pattern and appear to be purely random in nature.



Figure 27. Rear position, rear sight.



Figure 28. Forward position, rear sight.

Aftermarket Rear Barrel Sights

Multiple variations of custom sight designs by gunsmiths sometimes appear. Figure 29 shows a few representative samples. Buckhorn styles seem to be the most popular but a wide variety are often encountered.

Rear Tang Sight

Folding rear tang sights for Spencer sporting rifles are a rather simple device. They are mounted with 2 screws into the rear of the receiver. The sight itself is a 5 inch tall staff with sliding peep device. The sight has a sliding vertical peep for elevation, but no provision for windage adjustments. On early production models using leftover military receivers, the tang sight would cover up the serial numbers. On late model production sporting rifles the serial numbers are offset to the left of the tang sight (Figure 30). Tang sight production numbers can be found at the bottom rear of the staff, but not always. These tang sight serial numbers have been encountered from #1 to #95, with only a few repeated numbers in the range. They do not correspond to the serial numbers of the rifle nor do they run for the full production amount of close to 2,000 sporting rifles. A few tang sight reproductions have been found. These well-made reproductions were made by J. A. Keller of South Dakota, and



Figure 29.

I believe they were produced in the mid 1980s. To Mr. Keller's credit, he has marked them under the base.

Breechblocks

Early Hartford prototype breechblocks featured a central position sawtooth extractor (Figure 31). These were refined by the production period to a blade extractor



Figure 30.

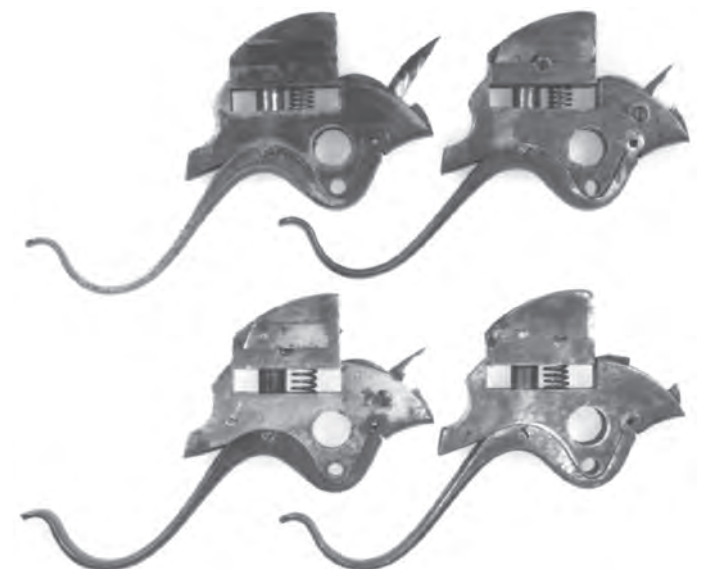


Figure 31.

mounted on the side of the breechblock. A later refinement added a spring assist to the blade. Assembly numbers are usually found on the right side of the breechblock and appear on the lever, block and percussion slide (Figure 32).

Cartridge Guides & Cut-offs

You will often find Spencer Sporting Rifles with two styles of cartridge guides. Earlier versions are a long curved bar (Figure 33) and with no provision for a cut-off device. Note that sporting rifles were never fitted with the E. Stabler cut-off device (Figure 34) in front of the trigger, as was done on military contract firearms. Spencer later patented his own version which combined with the cartridge guide and was mounted on top (Figures 35 and 36). If the top bar is swiveled to the side, the breechblock is prevented from moving down all the way and it will therefore only allow the extractor to remove the spent case. This action will also not allow additional cartridges in the loading tube from entering the camber, effectively making the rifle a single shot.

Hammers (Figures 38 and 39)



Figure 32.



Figure 33.

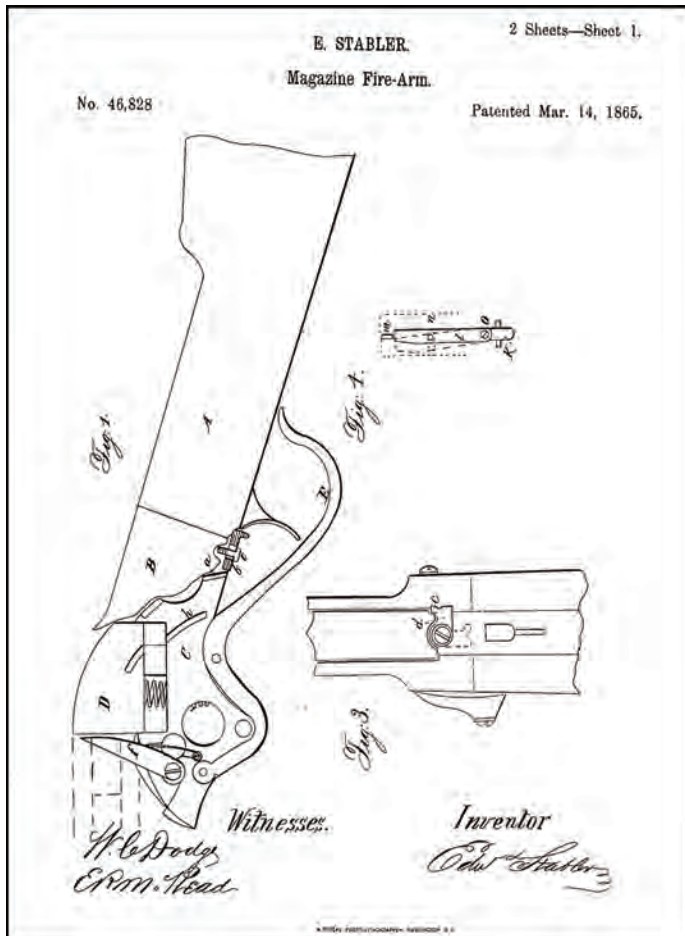


Figure 34. Stabler Patent 46828, cut-off device, March 14, 1865.

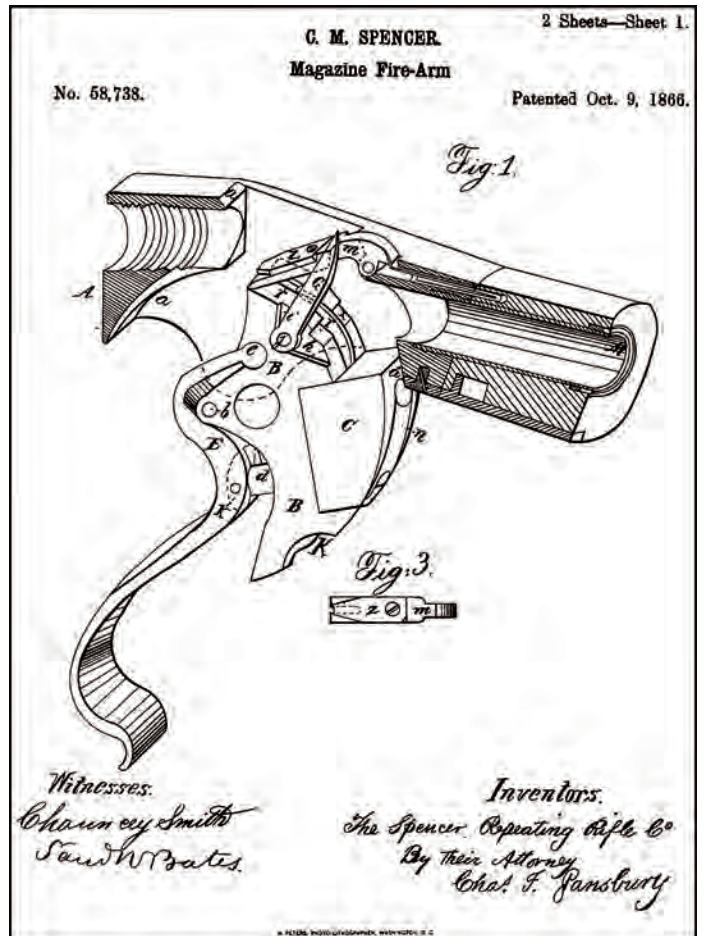


Figure 35. Spencer Patent 58738, cut-off device, October 9, 1866.



Figure 36.



Figure 37. Early flat style hammer M1860, Civil War version.



Figure 38. Later M1865 production with beveled front edge.

Triggers

Standard triggers could be upgraded to a set trigger configuration for an additional \$5. Of the few options available, this was a popular one when ordering a sporting rifle from the factory. The set trigger was a delicate device and had a very small adjustment screw to set the finger pressure required (Figure 39).

Butt plate & Loading tube

All Spencer firearms had loading tubes in the stock that would carry seven rounds of ammunition. The cartridges were fed up to the receiver by a spring in the tube (Figure 40). All sporting rifles have a rifle style crescent butt plate that the



Figure 39. Standard trigger (top) set trigger (bottom).

loading tube locks into (Figure 41). The ends of the loading tube can be characterized by two styles. The early version (M1860) is smooth (Figure 42), the later version (M1865) has a knurled or ridged finish (Figure 43). An aftermarket custom made version of butt plate and knurled tube is shown (Figure 44).

Forearm

Spencer Sporting Rifles have a distinctive forearm capped with a "pewter" tip (Figure 45). They are secured by

Figure 40.



Figure 41.



Figure 42.



Figure 43.



Figure 46.



Figure 47.



Figure 44.



Figure 45.

screws onto two square barrel lugs (Figure 46). Serial numbers of the rifle usually appear on the barrel between the lugs or between the lugs and the receiver (Figure 47). In addition, multiple assembly numbers are usually stamped under the forearm wood (Figure 48). These are sometimes confused with serial numbers but the die stamps are a different size.

Sporting rifle end caps have always been called “pewter” but are they really made of that material? Pewter is an alloy made up of 85-99% tin. In an effort to find out if the material is pewter, I took two samples from sporter end caps (one early and one late model) to the University of Arizona, Spectroscopy & Imaging Facility (USIF) (Figure 49) for analysis with a scanning electron microscope (SEM). After thorough cleaning and preparation, the tiny samples are put in a vacuum chamber then bombarded with 30 kV of electrical pulses. The 100,000 points then examined at 1,000 power

with the SEM. The results were surprising. They indicated the forearm caps were predominantly tin in early models (Figure 50) and had some antimony added as a hardener for durability in later production (Figure 51). Tin was used for its low melting point to avoid burning the forearm wood during assembly.



Figure 48.

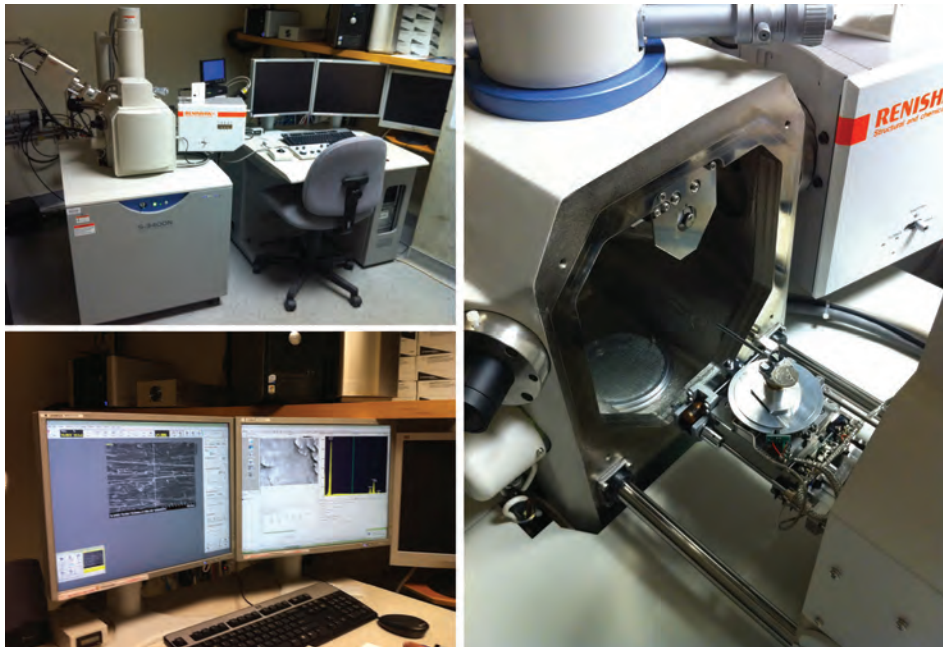


Figure 49.

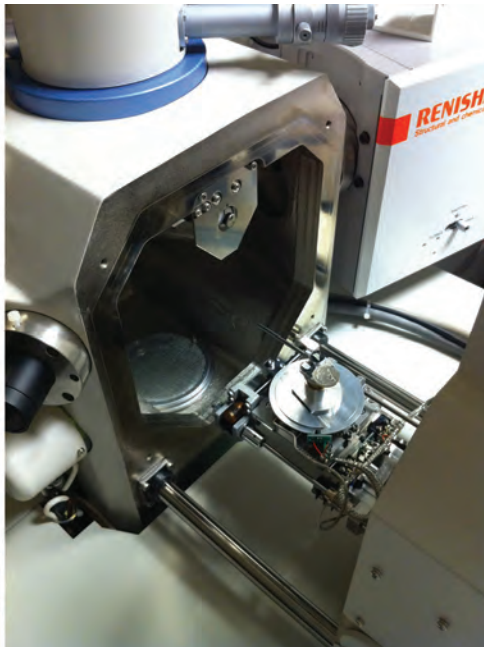
Ammunition

Early prototype sporting rifles used a .36 caliber barrel, which chambered a #38 Long RF cartridge. Later prototype versions used .44 caliber barrels chambering a #44 Long RF cartridge. These cartridges were made by Crittenden & Tibbals.

Standard production sporting rifles were chambered for a .44 caliber rimfire copper case bottleneck cartridge similar to 56-56 cartridges. The cartridge contained 45 grains black powder (lighter charge) and a 320 grain bullet (smaller diameter and lighter). This .44 caliber cartridge was initially developed by the Springfield Armory but never adopted. Note that the Spencer sporting rifles were limited to 1.75" long cartridge by the action size. Some



Figure 50. SEM analysis of an early model: 99% tin (Sn), 1% copper (Cu).



rifles, by special order, were chambered for .50 or .52 caliber. The 1866 catalog lists the following "calires": 44-100, 50-100 and 52-100, all of which sold for \$32 per 1000 rounds.

The major 56-46 ammunition (Figures 52-54) manufacturers included:

- Winchester
- Dominion
- Union Metallic
- C.D. Leet
- Crittenden & Tibbals
- Fitch Van Vechen & Co.

The five Spencer Sporting Rifle model types

Spencer Sporting rifles can be classified into five groups:

1. Prototypes1860-1864
2. Early models1864-1865
3. Late models1865-1868
4. Combination rifle & shotgun1865
5. Gunsmith aftermarket conversions1865 on

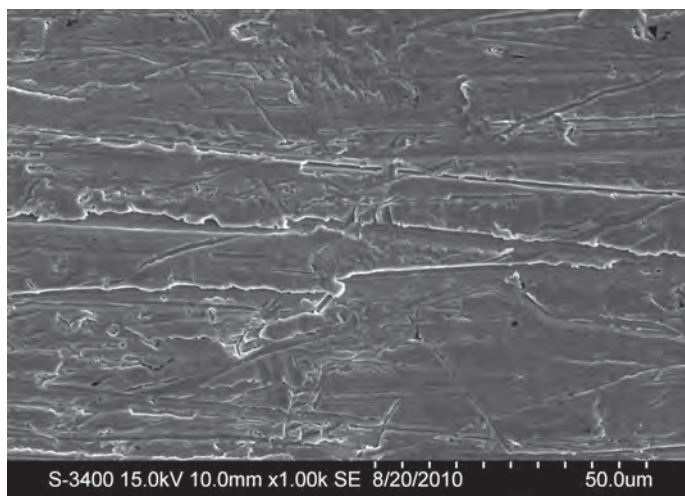


Figure 51. SEM analysis of late model: 66% tin (Sn), 33% antimony (Sb).



Figure 52. Some varieties of Spencer Sporter 56-46 bottleneck rimfire cartridges.



Figure 53. Spencer Sporter 56-46 cartridge, C.D. Leet example.

1. Prototypes 1860–1864

- Small frame
- Ring lever
- .36 cal (#38 Long RF)
- Total production unknown
- There are about seven examples existing

The original patent drawing #36062 is shown in Figure 3 with an improvement shown in Figure 55. One prototype example (Figure 56) is in the Frazier Museum, Louisville, Kentucky, and has a 24" octagon barrel. The second small frame example (Figure 57) is a .36 caliber (#38 Long RF cartridge) with assembly #11 and has an 18" round barrel (authors collection).

2. Early Model Sporting Rifles 1864–1865

The first production was in the late fall of 1864. The company utilized military contract M1860 receivers with



Figure 54. Spencer 56-46 ammunition labels.

two variations. The early thick frame versions (Figure 58) were 1-3/16" wide and the later thinner frame versions (Figure 59) were 1-1/16" wide, a 1/8" reduction. Only a few "early early" thick frame examples are known to exist.

Serial numbers have been noted in ranges from 1-62,000. The serial number is under the tang sight location and is often obliterated by the screw holes (Figure 60). Total production is probably less than 100 rifles, although no production records survive today.

3. Late Model Sporting Rifles 1865–1868

Full production of sporting rifles was from 1865 to 1868. The total estimate of production is about 1,900 based on the highest number serial number identified (#1890) to date. They can easily be recognized by their off-set serial numbers to the left of the tang sight (Figures 30 and 36).

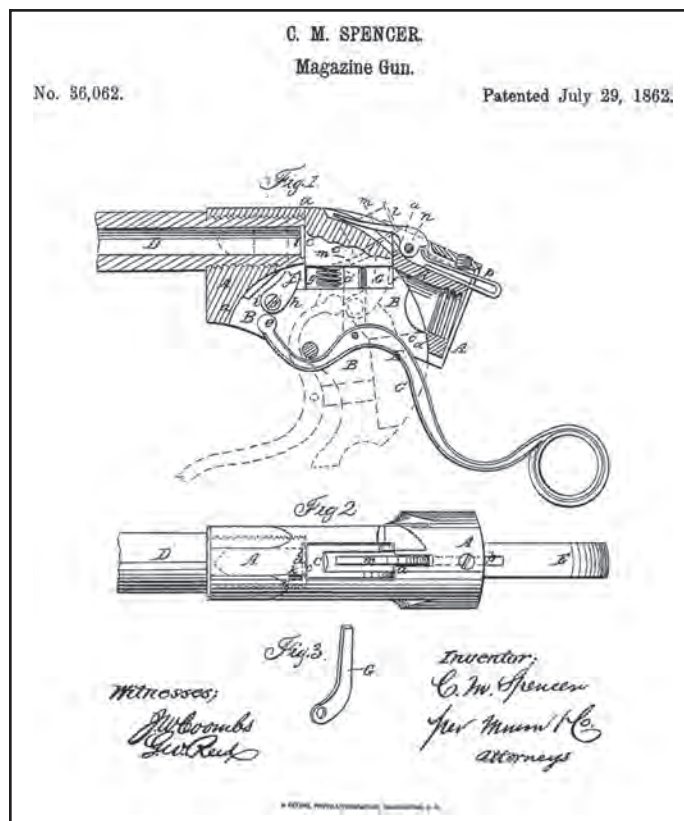


Figure 55. Spencer Patent 36062, improvement in cartridge retractor, July 29, 1862.



Figure 56. Prototype rifle assembly #8.



Figure 57. Prototype rifle assembly #11.



Figure 58. Early thick frame.

Figure 59. Late thin frame.



Figure 60. Early model serial number location.

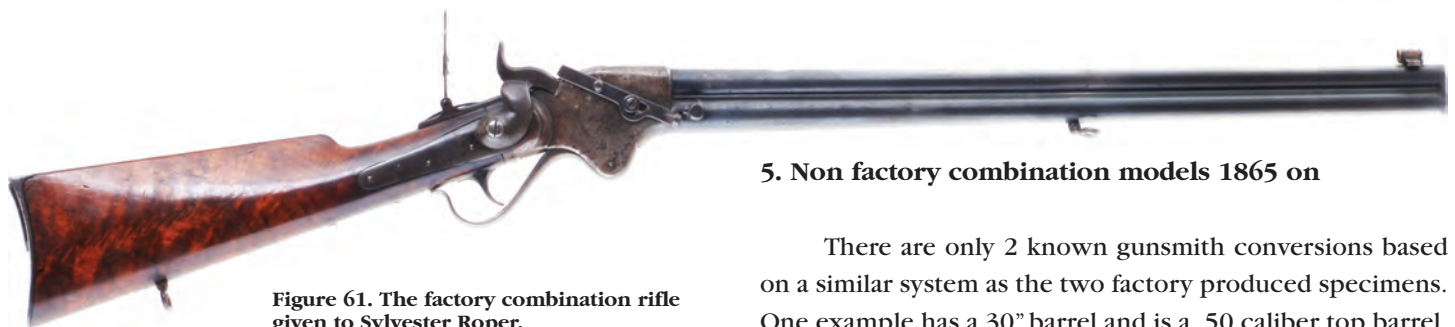


Figure 61. The factory combination rifle given to Sylvester Roper.

4. Combination Models 1865

These unusual rifle/shotguns saw limited factory production. Since there are only two known models, they could be classified as purely experimental. The two known examples are in different calibers, .36 and .44 caliber for the upper barrels and both have 16 gauge lower barrels. The barrels are both 23-3/4" long with full length ramrods mounted on the left side. Another interesting feature is the addition of a small brass compass mounted in the top of the stock's comb (Figure 65).

The first example (.36 cal) (Figures 61 and 62) is identified in the Spencer Royalty Ledgers (Figure 63) as given to Sylvester Roper by Spencer on May 15, 1865.

The lower shotgun barrel is a muzzle loader and is fired by a percussion system. There is a moveable striker plate attached to the right side of the receiver that allows for the hammer to fire the percussion cap. In known variations, this striker plate is either a single or double (two piece) bar (Figure 66). A second variation in .44 caliber is shown (Figure 66).



Figure 62.

5. Non factory combination models 1865 on

There are only 2 known gunsmith conversions based on a similar system as the two factory produced specimens. One example has a 30" barrel and is a .50 caliber top barrel,

Amory, Boston, U.S. July 1865

Mr. J. M. Spencer, Chief of Staff
 U.S. Spencer Repeating Rifle Company, D.C.

May 14	1. 16 gauge bottom barrel	50.00	
	1. 16 gauge bottom barrel	50.00	
	4. 22 gauge bottom barrel	40.00	
June 23	1. Sporting Carbine	50.00	139.70
	1. Carbine	50.00	200.00
July 8	1. 16 gauge bottom barrel	50.00	40.00
	1. 16 gauge bottom barrel	50.00	50.00
13	1. 16 gauge bottom barrel	50.00	150.00
19	1. 16 gauge bottom barrel	50.00	2.38
	1. 16 gauge bottom barrel	50.00	5.25
Aug 4	1. 16 gauge bottom barrel	50.00	10.60
	1. 16 gauge bottom barrel	50.00	4.00
	1. 16 gauge bottom barrel	50.00	58.10
	1. 16 gauge bottom barrel	50.00	98.10
	1. 16 gauge bottom barrel	50.00	33
	1. 16 gauge bottom barrel	50.00	1171.00

Boston Aug 4, 1865
 J. M. Spencer, Repeating Rifle Co
 for Mr. J. M. Spencer

Figure 63.



Figure 64.

16 gauge bottom barrel (Figure 66). The second example (Figure 67) is a converted saddle ring carbine with a 22" barrel and is missing the percussion striker bar and ramrod.

6. Gunsmith Conversions

A few examples of gunsmith conversions are shown in Figures 68-72.

Model Production Matrix

The following synopsis examines over 150 sporting rifles in terms of early versus late models, octagon versus

Spencer Sporter Barrel Matrix										
Total surveyed		Early	42							117 - 10 unknowns
		Late	107							
		No Serial #'s	4							
		total	153							
	50 cal	shorter	26"	28"	30"	32"	34"	Longer	Total	% of EARLY
EARLY ROUND	1	1	29	0	1	0	1	1	33	79%
OCTAGON	0	4	1	4	0	0	0	0	9	21%
	50 cal	shorter	26"	28"	30"	32"	34"	Longer	Total	% of EARLY
LATE ROUND	4	4	40	10	16	0	0	0	70	65%
OCTAGON	1	1	6	17	7	4	2	0	37	35%
	50 cal	shorter	26"	28"	30"	32"	34"	Longer	Total	% of EARLY
NSN ROUND	1	1	1	0	0	0	0	0	2	50%
OCTAGON	1	0	0	0	2	0	0	0	2	50%
TOTALS	8	11	77	31	26	4	3	1	153	
		7%	50%	20%	17%	3%	2%	1%		

round barrels and overall barrel lengths. By far, the most popular model was a round barrel in 26" length.

Spencer Carbine & Rifle Tools

Spencer rifles and carbines were supplied with screwdrivers and cleaning brushes (Figure 73). The short screwdriver is for carbines and the long screwdriver is for rifles, although the heads are exactly the same. The brush & thong is sometimes seen with a screw on version that allows for the thong to be removed and a wooden cleaning rod attached.

Engraved Spencer Sporting Rifles

Engraved sporting rifles are very rare and only a couple are known to exist. The factory hired L. D. Nimschke (Figure 74),



Figure 65. Factory combination rifle.



Figure 66. Gunsmith fabricated combination rifle.

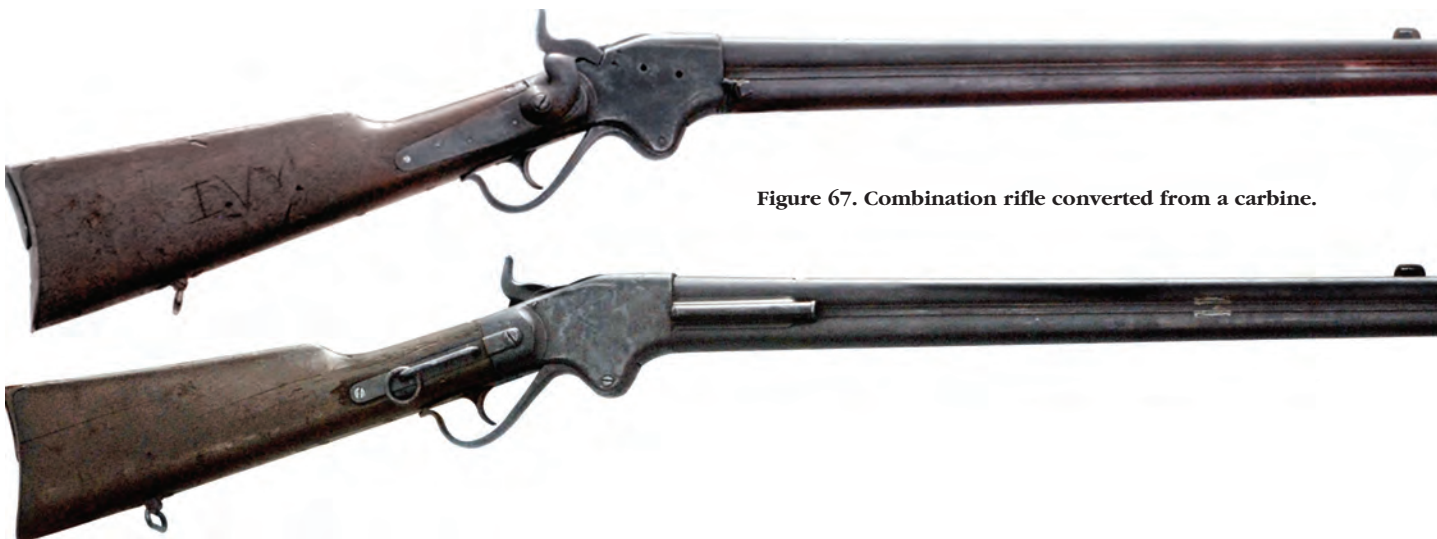


Figure 67. Combination rifle converted from a carbine.

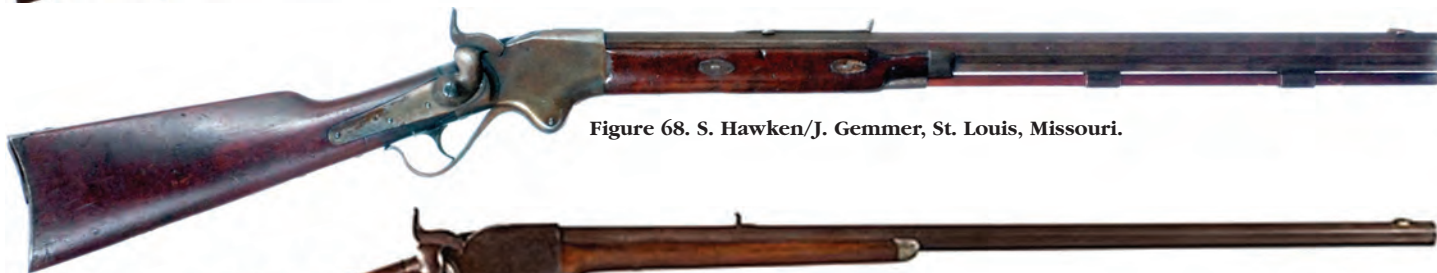


Figure 68. S. Hawken/J. Gemmer, St. Louis, Missouri.

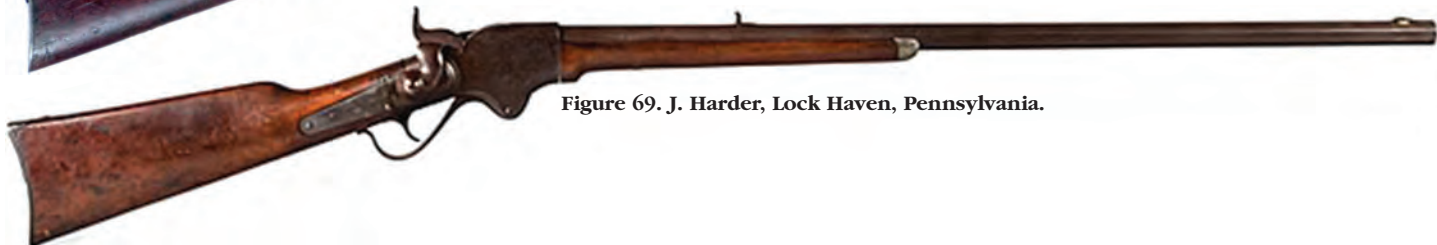


Figure 69. J. Harder, Lock Haven, Pennsylvania.

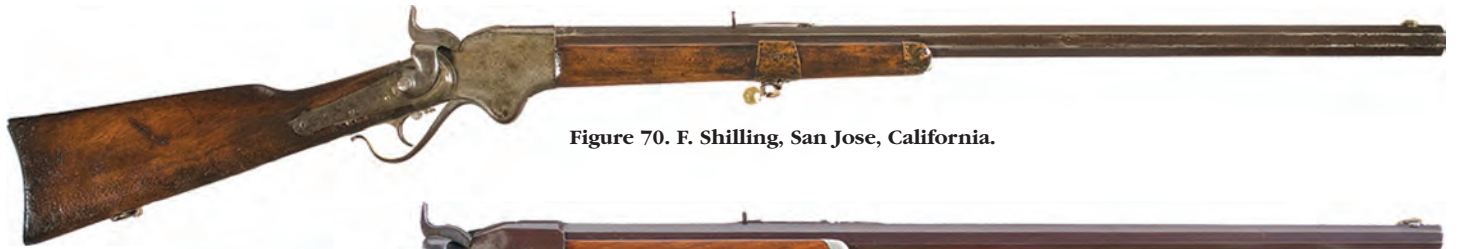


Figure 70. F. Shilling, San Jose, California.

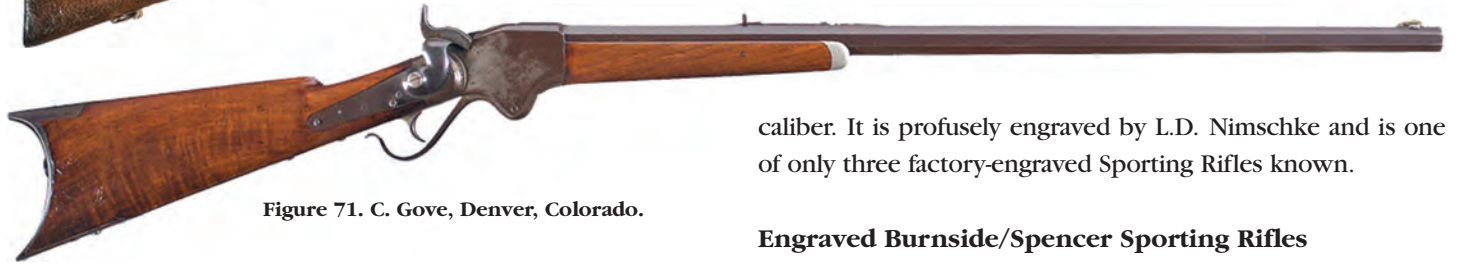


Figure 71. C. Gove, Denver, Colorado.

caliber. It is profusely engraved by L.D. Nimschke and is one of only three factory-engraved Sporting Rifles known.

Engraved Burnside/Spencer Sporting Rifles

The Burnside Rifle Company was under contract to produce military firearms for the US government. They did not manufacture sporting rifles for the general market. This presentation rifle is the exception (Figure 79). It was presented to Edward Stabler in 1865. There is no serial number on this high grade rifle that is chambered in .44 caliber. The barrel is unusual because it is a 30-1/4" octagon/round version. The forearm cap is also a different style than the standard Spencer sporting rifle version. This one of a kind presentation sporting rifle resides in the Stabler family collection.

The second example of an engraved Burnside rifle, Serial #533 (Figure 80), is an anomaly. In my opinion, it isn't a true sporting rifle because I believe it is a conversion of a Burnside carbine that was engraved by an unknown engraver. Therefore it fits a category on the far fringe of Spencer sporting rifles.



Figure 72. Various gunsmith conversions Barrel stamps.

1832-1904, of New York City to engrave a few specimens. L.D. Nimschke shows several pages of engraving styles for Spencer firearms in his pattern book (Figure 75).

Factory Engraved Sporting Rifle

A sporting rifle from the authors collection, serial #1010 (Figure 76), has a 27-1/2" round barrel and is chambered in .44

Presentation Sporting Rifles

An example of a fine presentation Sporting Rifle is an early model from the



Figure 74. L.D. Nimschke's business card.



Figure 73. Spencer carbine and rifle tools.

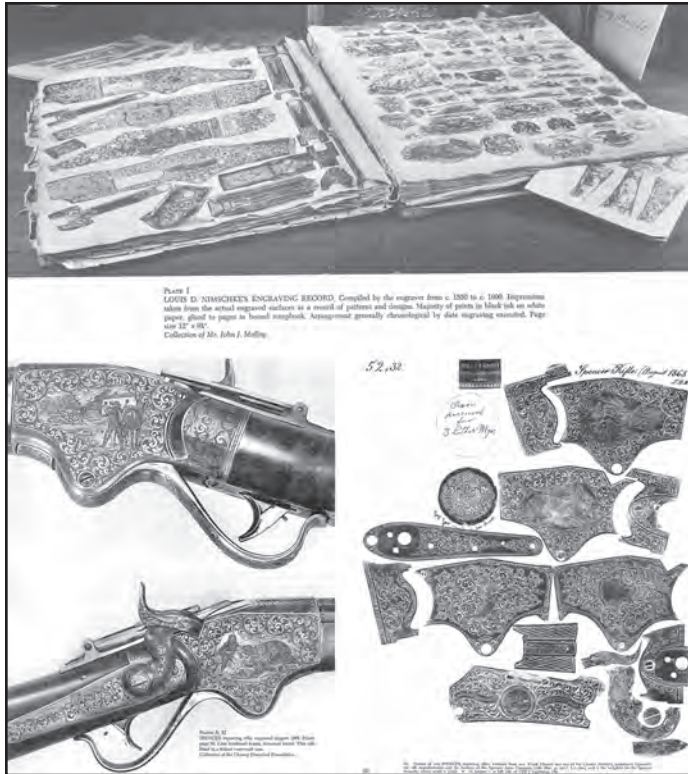


Figure 75. Nimschke's pattern book displayed the Frank Cheney Sporter, 1868.

author's collection, circa 1864, with serial #87 (Figure 81). It is configured with a 26" round barrel in .50 caliber. This shooting prize in the 3rd match was awarded in July 1868 by Sir John Rose, 1st Baronet, lawyer and member of the

Canadian Legislative Assembly. The recipient was Sergeant Frederick S. Proper, of the Hemmingford Rangers, Montreal Corps, Quebec Province.

Cased Sporting Rifles—Hammer Down Style

Spencer sporting rifles can be found in two varieties of case configurations. Normally you would see fine cased rifles with their hammers in an upright position, i.e. the right side of the rifle is exposed. Here are two examples of the hammer down variety.

This presentation rifle (Figure 82) was given to Gideon Wells, Secretary of the Navy, in 1865. It is an early model with serial number #11893. The rifle features a 26" round barrel in .44 caliber and surprisingly is not engraved.

A second hammer down cased example that was recently discovered is a late model sporting rifle with serial number #828 (Figure 83). It features a very short 20" round barrel in .44 caliber. This rifle was owned by Johnston Livingston, who along with Henry Wells and George Fargo founded the American Express Company, circa 1850.

Cased Sporting Rifles - hammer up style

The Frank Cheney rifle was presented in 1868 (Figure 84). It is a late model and does not have a serial number. This spectacular rifle was engraved (Figure 85) by L.D. Nimschke and is



Figure 76. Fully engraved sporting rifle by L.D. Nimschke, serial #1010, 27 1/2" round barrel.



Figure 77. Serial #1551 with 24-3/4" octagon barrel.

Lt. Phillip Reade engraved sporting rifle (Figures 77-78)



Figure 78. Photographs of Lt. Phillip Reade. At West Point (left) and near Fort Dodge, Kansas in 1869 with John Austin (right). They are looking at Ralph Morrison who was killed and scalped by Indians.



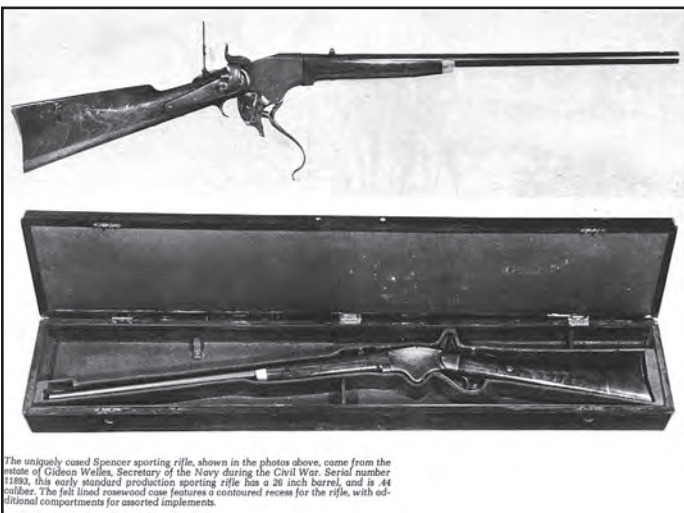
Figure 79. Edward Stabler presentation rifle.



Figure 80. Engraved Burnside carbine converted to rifle.



Figure 81. Presentation rifle to Sergeant Frederick S. Proper, serial #87.



The uniquely cased Spencer sporting rifle, shown in the photos above, came from the estate of Gideon Wells, Secretary of the Navy during the Civil War. Serial number 11893, this early standard production sporting rifle has a 26 inch barrel, and is .44 caliber. The full lined rosewood case features a contoured recess for the rifle, with additional compartments for assorted implements.

Figure 82. The Gideon Wells, Secretary of the Navy, presentation rifle.



Figure 83. The Johnston Livingston cased rifle.

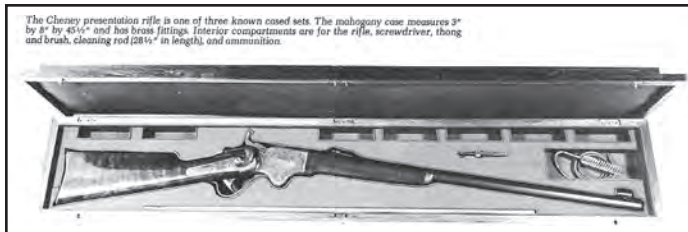


Figure 84. The Frank Cheney presentation rifle.

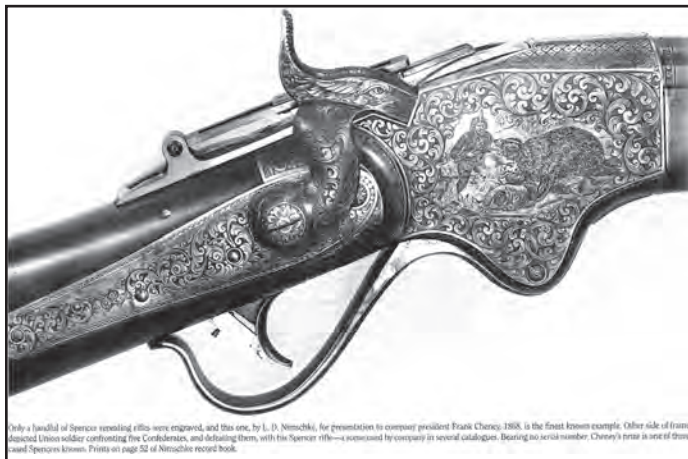


Figure 85. Engraving by L.D. Nimschke.

well documented in his pattern book. Note the tools and the ammunition compartments in the rifle case. This high grade sporting rifle resides in the Historical Society Museum, Hartford, Connecticut. It is on permanent loan by George Cheney.



Figure 86.

Spencer Sporting Rifles in Photographs

Finding Spencer sporting rifles in period photographs is a daunting task at best. I have only been able to locate four photos in 21 years of hunting. The most famous one is a well known example of Lt. Colonel George Armstrong Custer (Figure 86). It was photographed as part of a series by Will Soule and is titled “Near Fort Dodge, Nov 1868”. G.A. Custer is shown leaving his tent with a round barrel sporter. It is unfortunate that the serial number was never documented.

A Spencer rifle is seen in a photograph by Silas P. Melander (1853-1915) Chicago Studio: “Camping in the Yosemite Valley” at Yosemite Falls 1887 (Figure 87). Another example is a photograph by Joseph E. Smith, “Socorro, New Mexico 1882” (Figure 88) and “The trophy” circa 1870s by an unknown photographer (Figure 89).

Myths and Mysteries

- The so-called “Factory Model”
- Standard barrel lengths
- Pewter forearm nose cap
- Rear barrel sight locations
- Numbered tang sights
- Total production numbers





Figure 87.



Figure 88.



Figure 89.



Figure 90.



Figure 91. ASAC display of 22 Spencer sporting rifles (author's collection), April 2009, Santa Fe New Mexico meeting.

END NOTES

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2. Smithsonian Institution.
3. Little Johns Auction Service, Anaheim California.
4. Marcot, Roy M., *Spencer Repeating Firearms*, Northwood Heritage Press, Irvine, California, second edition, January 1990, 87, 115-117.
5. Nineteenth Century Weapons website, Neil Gutterman, Pearl River, New York.
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12. R. L. Wilson, *L. D. Nimschke Firearms Engraver*, R & R Books, Livonia, New York 1992, xvi, xxiii, 52.

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14. Robert Redmond, Missoula, Montana.
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16. Phillips, David R., *The West an American Experience*, Henry Regnery Company, Chicago, Illinois, 1973, 108-109.
17. Phillips, David R., *The Taming of The West a Photographic Perspective*, Henry Regnery Company, Chicago, Illinois, 1974, 115.
18. George Carr, Woodland Park, Colorado (copy from the Herb Peck collection).
19. United States Patent Office / Google Patents website (all patent drawings).

ACKNOWLEDGEMENTS

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