

The Peabody Conversion Musket

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Henry O. Peabody's original breech loader design for a lever-actuated falling block system, which he patented in 1862, is readily recognized by today's collectors. In the 1866-1867 time period, however, the various governments that were searching for a cheap way to rearm with breech loaders wanted to utilize existing supplies of muzzle-loading muskets. The Peabody design of 1862 was not readily adapted to converting muzzle-loaders to breech-loader. Although the musket could have been cut in half and the original Peabody breech-frame design inserted in place of the original lock and barrel breech, the cost of this conversion method was significantly more than competing designs. There is no evidence that Peabody or his gun's maker, the Providence Tool Co., ever contemplated manufacture of this type of conversion.

The basic Peabody design was well known by 1867. The Army's Ordnance Department had tested the design in 1862. Again in 1865 the Ordnance Department tested the Peabody (during the "Laidley Board" breech loader trials), selecting it as the best for future breech-loading carbines. The Springfield Armory was directed to fabricate six sample rifles in mid-1865. However, the end of the Civil War mitigated against the need for any more weapons purchases.

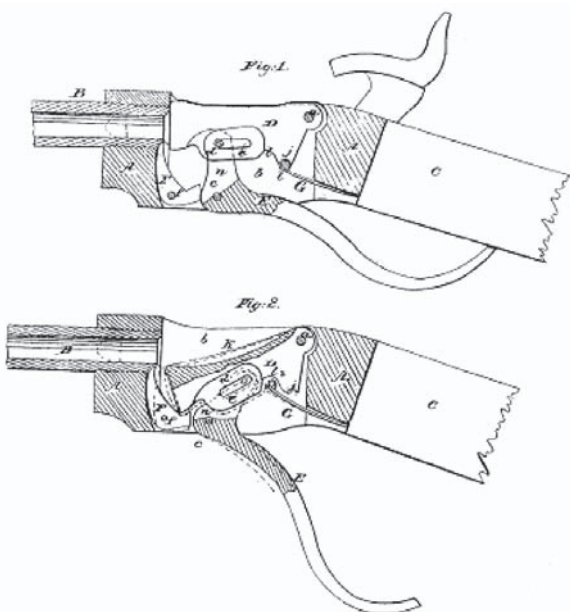


Plate 1. Drawings from Henry O. Peabody's 1862 patent, showing his original tip-down breech block design (U.S. Patent Office).



The Providence Tool Co., which had secured the rights to Peabody's patent in October, 1864, in 1866 began production of the first of what would become a total of over 112,000 Peabody rifles and carbines by 1871.

In the meantime, two significant rearmament trials were held by the U.S. Army (1866) and by the Adjutant General of New York State (1867). In both cases the expressed need was for a system of converting the old muzzle-loaders into effective breech loaders . . . on the cheap. Peabody and the Providence Tool Co. failed to interest the Army's Ordnance Department or the New York State trials board in the new-made Peabody rifle, thus, giving rise to Peabody's development of a true musket conversion system.

The significant change embodied in Peabody's design for a conversion system was to relocate the lever for the tip-

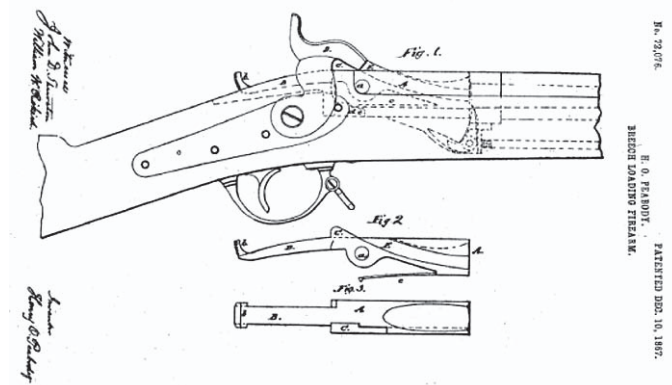


Plate 2. Drawing from Peabody's 1867 patent, showing his design for a musket-conversion system (U.S. Patent Office).

ping block from an under-lever to a top-lever actuation. This change allowed for a smaller breech frame, which could be set into the existing musket stock. As in the 1862 design, the block is still held in the closed position by a spring mechanism. Because the hinge pin is located high on the frame, the rotating block clears the barrel chamber as it is lowered.

Peabody submitted a patent application for this design on April 18, 1867, but it was rejected multiple times by the examiner. In its original form the patent application attempted to cover a design wherein the falling hammer automatically locked the breech closed. In its final form the patent merely covered a feature where a projecting lip on the breech block prevented the hammer from striking the firing pin until the breech was closed. The patent, number 72,076, was finally issued on December 10, 1867. Thus, while the design shown in the patent drawing was incorporated into the musket conversions actually produced, the original 1862 patent covered the breech action—and the arms were therefore marked with this original patent reference.

It must be noted here that Peabody probably did not develop his conversion design independent of other inventors. At this same time the Providence Tool Company was also tooling up to produce the Roberts conversion system, which was a very similar tipping block design. The company began shipping such Roberts conversion muskets in August of 1867.

The Providence Tool Co. began to advertise the Peabody conversion system as soon as the design was patented. An

early advertisement is dated December, 1867. The marketing effort was apparently very low key, however, as the only other advertisement for the conversion system that the author has located is in the 1870 company catalog. No advertisements appear in the trade journals of the period. Further, the company submitted a sample arm of this conversion design to only one of the many American ordnance trials held during the 1867 to 1872 period. This sole trial was the 1870 U.S. Army trials board, convened by the Secretary of War in St. Louis.

This “St. Louis Board” tested five different Peabody rifle designs, including the conversion system. The test report labels this arm the *Peabody (Springfield transformed), caliber .50* rifle. There is no further description of the rifle. Testing of the rifle proceeded satisfactorily and it functioned well until the “defective cartridge” tests. In firing the rifle with a cartridge purposely weakened at the rim, the cartridge split and the gasses escaping around the breech block shattered the stock. The Peabody conversion thus failed the test and was eliminated from any further consideration by the ordnance board.

The Peabody conversion design did not find favor in the U.S. and no evidence has been located that any military unit here was ever issued any such arms. A significant number of rifles were converted on foreign orders, however. In 1869 Serbia adopted the Peabody system and fabrication began in 1871 of the *M. 1870 Peabody System Rifle*. The breeches for these rifles were fabricated in Austria by

Thomas Sederl and in Serbia by the Military Technical Institute Kragujevac, under license from a firm in Hamburg, Germany. (The Providence Tool Company’s manager had traveled to Europe in 1867–1868 and probably arranged at that time for the German firm to be their agent in Europe.) Serbian arsenals then converted a total of 55,000 percussion rifles into breech-loaders: 28,000 Saxon Model 1850/56 rifles and 27,000 Austrian Lorenz Model 1854 types. Frame versions in both iron and bronze were made. All of the rifles were altered to 14.9-mm caliber at that time. The early Peabody conversion design (discussed below) was used.

A British ordnance board also tested a Peabody conversion musket in 1870, but Britain by this date was no longer interested in convert-

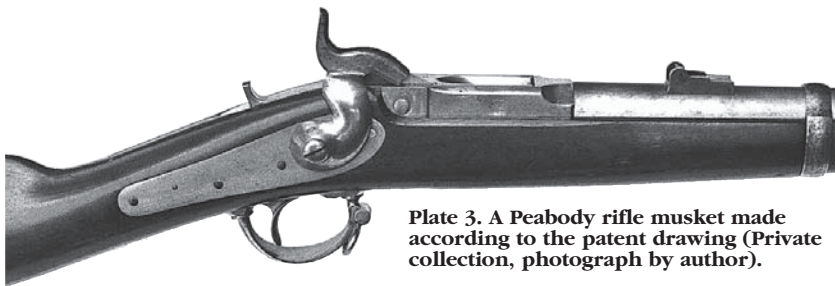


Plate 3. A Peabody rifle musket made according to the patent drawing (Private collection, photograph by author).

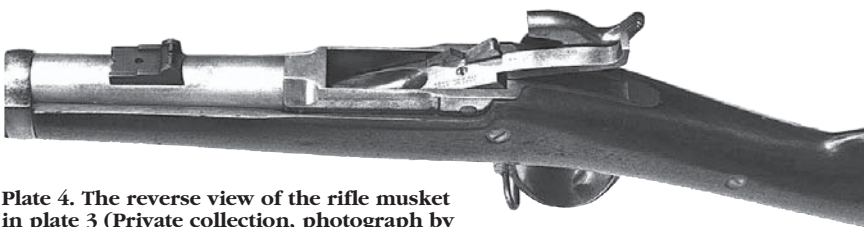


Plate 4. The reverse view of the rifle musket in plate 3 (Private collection, photograph by author).

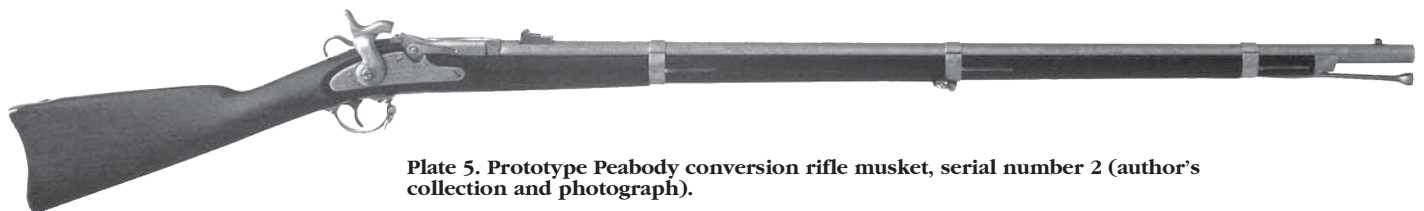


Plate 5. Prototype Peabody conversion rifle musket, serial number 2 (author’s collection and photograph).

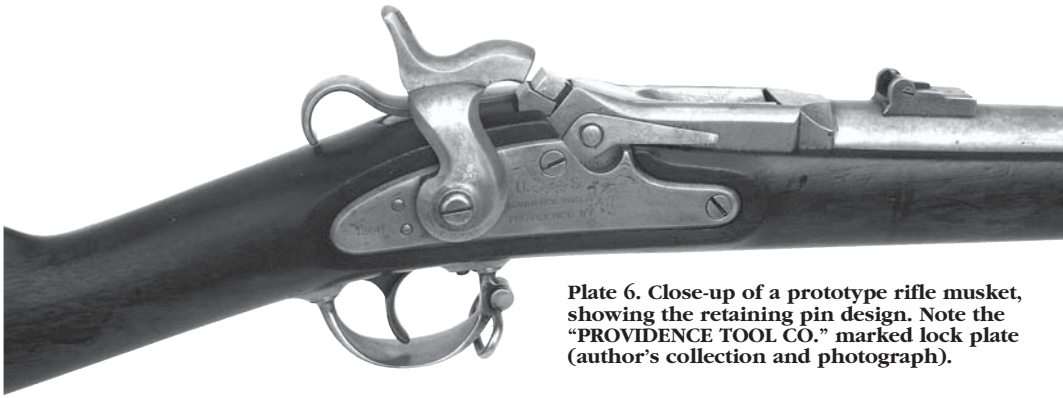


Plate 6. Close-up of a prototype rifle musket, showing the retaining pin design. Note the "PROVIDENCE TOOL CO." marked lock plate (author's collection and photograph).

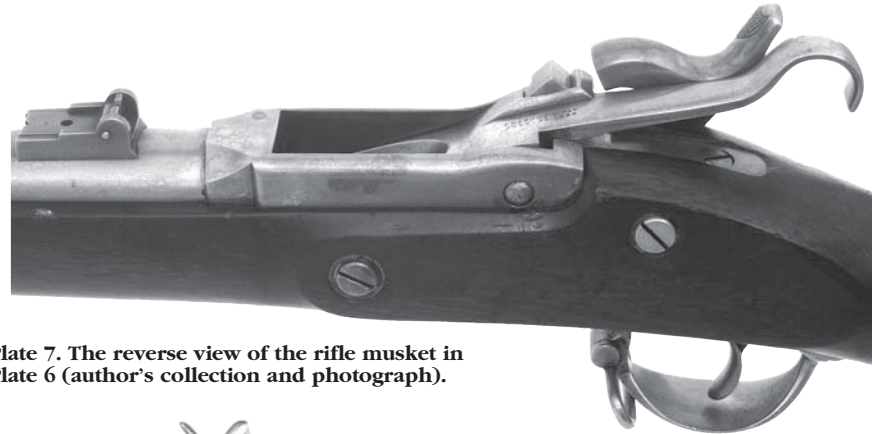


Plate 7. The reverse view of the rifle musket in Plate 6 (author's collection and photograph).



Plate 8. Serbian Model 1870 Peabody rifle, bronze frame version (author's photo collection).

ing old muzzle-loading arms (having by then converted most of its rifle muskets on the Snider system).

The Providence Tool Co. did go into limited production of the conversion for France during the Franco-Prussian War. A French source quotes the number delivered as 16,046. However, the relative scarcity of surviving arms

leads the author to conclude that the total was more likely 1,600. The highest serial number so far observed (from a very small sample size) on these late model French conversions is 697, which also tends to support the argument for a low production total. It is possible the deliveries of the similar Roberts conversion rifles were included in the foregoing total. The French also purchased 2.2 million "Peabody .58" cartridges. However many rifles were converted, the Peabody conversion is certainly the lowest volume type of the production military arms made by the Providence Tool Co.

The design of the Peabody conversion musket underwent very few changes between its inception in 1867 and production termination in 1871. The early design, including the Serbian model, incorporated a breech block pivot pin retained in place by a flat attached spring-lever (similar to the arrangement on the company's Roberts conversion arms), which could be removed with the fingers. About 1869 this pin was replaced by a thick bolt, which required a screwdriver for removal. The cartridge extractor was at first centered directly beneath the chamber. Later models had the extractor located on the left side of the chamber (again, like the Roberts design). Other design features of the breech remained constant.

The similarity of the Peabody design to that of General Benjamin S. Roberts is unmistakable. Consequently, collectors (and even contemporary authors: witness the reference to the "Serbian Roberts") confuse the names. Since both designs



Plate 9. Peabody conversion of an Enfield rifle, as sold to France in 1871 (author's collection and photograph).

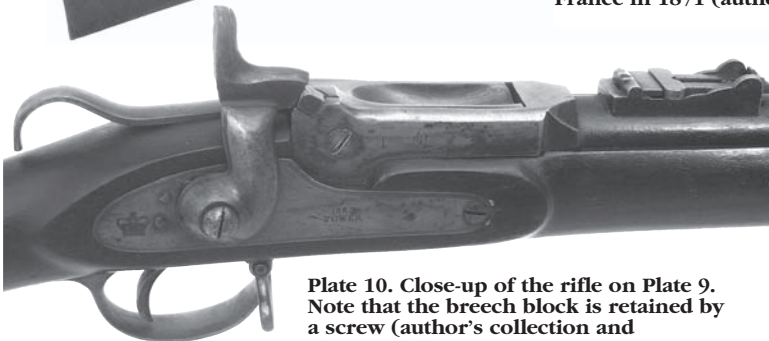


Plate 10. Close-up of the rifle on Plate 9. Note that the breech block is retained by a screw (author's collection and photograph).

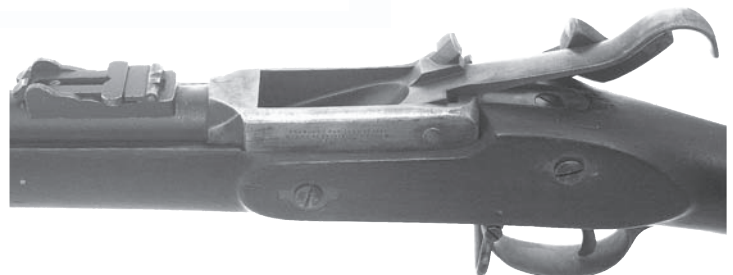


Plate 11. The reverse view of Plate 10 (author's collection and photograph).

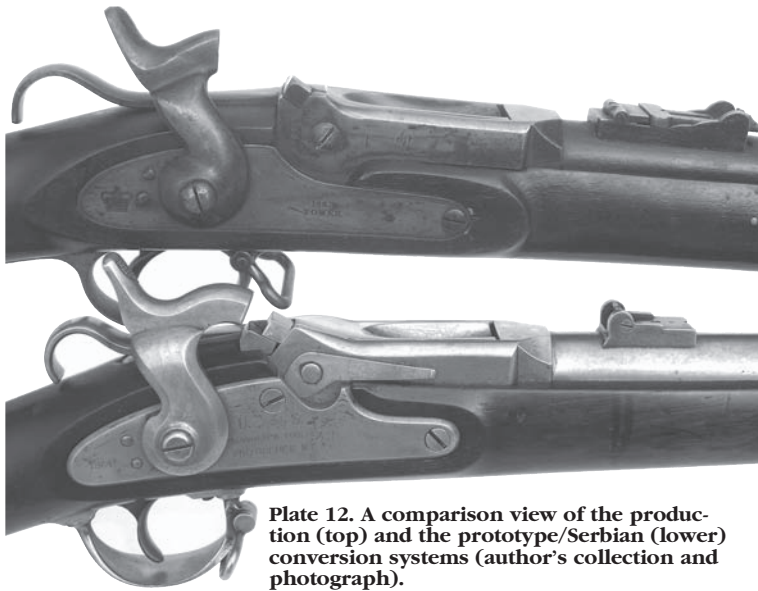


Plate 12. A comparison view of the production (top) and the prototype/Serbian (lower) conversion systems (author's collection and photograph).

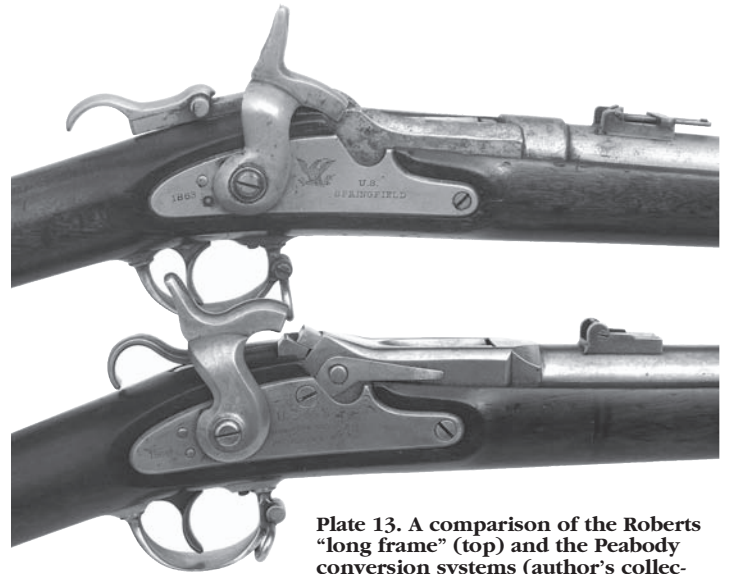


Plate 13. A comparison of the Roberts "long frame" (top) and the Peabody conversion systems (author's collection and photograph).

were in production concurrently at the Providence Tool Co., their similarity is not surprising. Tooling for production of the Roberts "short-frame" conversion muskets and carbines began in 1866. Transition to a "long-frame" version occurred about 1869. Both designs utilize a new-made frame to house the tip-down breech block. The early Peabody design utilizes a

In summary, the Peabody conversion had a short life span, as did most conversion systems in that era. The Providence Tool Co. ceased production of the Peabody conversion after completing the French order. In total, no more than perhaps 60,000 were made, and less than 5,000 in the factory of the Providence Tool Co. They were used by the military forces of Serbia, France, and perhaps Mexico (a sample in the *Museo Nacional de Historia* is described as a Mexican Army issue rifle).



Plate 14. A reverse view from Plate 13. Note that the Roberts breech block is locked down by a spring-loaded latch, whereas the Peabody block is held closed by an internal spring (author's collection and photograph).

spring-held pin to retain the breech block, as in the "long-frame" Roberts design. The later Peabody production conversions share the same extractor arrangement as the Roberts. Also, both appear to share the same centerfire cartridge, although the Peabody conversion's chamber is a trifle longer than the Roberts cartridge.

The company tried unsuccessfully to divest itself of the Peabody rifle and carbine manufacturing tooling and equipment—along with the patent rights—in 1871. They would soon celebrate their lack of success in selling the Peabody off, however, when they obtained the contract to make Peabody-Martini rifles for the government of Turkey. However, that is another story.

BIBLIOGRAPHY

- Bogdanovic, Branko, *Rifles, Two Century of Yugoslavian Rifles*. Belgrade, 1990.
- Bogdanovic, Branko, and Valencak, Ivan, *The Great Century of Guns*. New York: Gallery Books, 1986.
- Hull, Edward A., *Providence Tool Co. Military Arms*, privately printed, 1979.
- Lorain, Pierre, *Les Armes Americaines de la Defense Nationale, 1870-1871*. Privately published, 1970.
- Norton, Charles B., *American Breech-Loading Small Arms*. New York: F. W. Christern, 1872.