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**An Unusual Stone Cache from 20MU147**

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# Percussion Cap Rifle and Powder Flask from the Warner Site, 20LV334, Brighton, Michigan

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## **Abstract**

Firearm related artifacts are commonly found on nineteenth century sites including gun parts, metal cartridges, and lead shot. The 170 year old Warner farmstead site is no exception with over 100 artifacts directly related to firearm use. However, unlike most archaeological sites that often provide only fragmentary representation, a nearly complete rifle and powder flask originating directly from the household inventory is available for analysis. The samples have an established provenience that can provide valuable insights on the cultural inventory especially those related to firearms. These items also have the potential to reveal information on distribution events of household goods among multiple generations, particularly those that did not become part of the archaeological record. This article attempts to describe the background of the rifle and powder flask through a combination of historical, genealogical, and archaeological contexts.

## **Introduction**

The Warner site dates to 1841 when an 80 acre parcel was purchased by pioneer Timothy Warner for \$384. A log cabin was erected and by 1850 half of the property had been cleared. The cabin burned down and was replaced with a Greek Revival house in 1855, now listed in the National Register of Historic Places. Six generations of the family have made the house their home and over time the attic became packed with a variety of unused items. In fact, fourth- and fifth-generation family members attest that it was once

filled with many household goods ranging from a spinning wheel to crockery to apiary equipment (Lynn Chase, personal communication 2008; Robert Warner, personal communication 2010).

Two of these items included a nineteenth century rifle (Figure 1) and powder flask (Figure 2) discovered in 1956 by Lynn Chase, a Warner descendant through his mother Florence Warner-Chase. As a twenty year old, Lynn went into the attic with his grandmother Laura Fuller-Warner. Having an interest in firearms at the time, it apparently caught his eye despite lying in the corner of the dimly lit attic.



Figure 1. A nearly intact percussion cap rifle dating to the mid-1840s was discovered in the attic of the historic 1855 Greek Revival house at the Warner site. (Photo by the author)



Figure 2. Companion powder flask found with the rifle in the Warner farm house attic. (Photo by the author)

Relieved that his uncle showed no interest in it, he was allowed to purchase it for \$25 from his grandfather Herbert Warner. Unfortunately, Herbert, born in 1885, offered precious few details on the rifle. The gun received mild restoration after which it sat wrapped in a wool blanket tucked away in a closet at his residence in Durand, Michigan for nearly 50 years (Lynn Chase, personal communication 2008).

The rifle is a civilian type percussion cap muzzle loader that utilized black powder to propel a patched lead ball. Percussion caps were invented in 1807 by Reverend John Forsyth of Scotland, and Joshua Shaw is credited by some with an improved copper cap in 1814 (Fadala 2006; Winant 1970). Early caps were made of iron and pewter, but it was Shaw's design consisting of copper patented in 1822 that found use over several decades (Hunter 2009). Although flintlock firing weapons were known to be produced as late as the 1870s especially for Native Americans,

their use began to wane by the 1830s in lieu of the more reliable percussion cap style (Hanson 1976).

The cap, a small cylinder sometimes described as a “top hat” in profile, contained fulminate of mercury and was sealed on top of the nipple (Globalsecurity 2008). When the hammer struck the nipple with the cap in between, the fulminate of mercury exploded sending flames through the hollow nipple and drum igniting the powder charge in the barrel. Unlike the flintlock mechanism which used sparks produced by a piece of flint striking a steel plate to ignite a charge of powder contained in a small pan, the enclosed percussion method provided for faster ignition and greater dependability.

The gun conforms stylistically to those classified as the Pennsylvania/Kentucky type, but is further distinguished as a sporting or target rifle due to its small caliber and shortened, heavy barrel. It also closely resembles a Plains type gun due to its half stock, but has a shorter barrel and smaller caliber than was typical for other Plains rifles. This style utilizing a flintlock mechanism had its debut around 1720 and was the dominant style of gun used by pioneers moving west into the 1850s.

A nearly illegible maker’s mark of what appears to be “N ERT DETR” is

stamped on the top flat of the barrel near the breech plug is likely “WM WINGERT DETROIT.” William Wingert and his brother John A. Wingert operated a gunsmith shop in Detroit from 1837 to 1867 after which it was sold to Fisher & Long (Clark 1867). The shop was originally located at 109 Woodbridge Street in 1837 (MacCabe 1837). Around 1845 the shop is listed at the address of [108] Woodward Avenue (Wellings 1845). These two locations are 0.35 miles apart and situated very near the existing Renaissance Center in downtown Detroit. By 1862, the shop had moved around the corner to 10 Congress Street East (Figures 3 and 4) (Clark 1862). The Wingert’s became known for making all sorts of interesting firearm configurations including under-hammer pistols and three-barrel raffle-shotgun combinations (Bryan 1996; VanRensselaer 1947).

Besides specialty guns for retail consumers, Wingert also produced target and hunting rifles for the U.S. Army. A brief article in the *Detroit Daily Advertiser* dated October 16, 1861 notes:

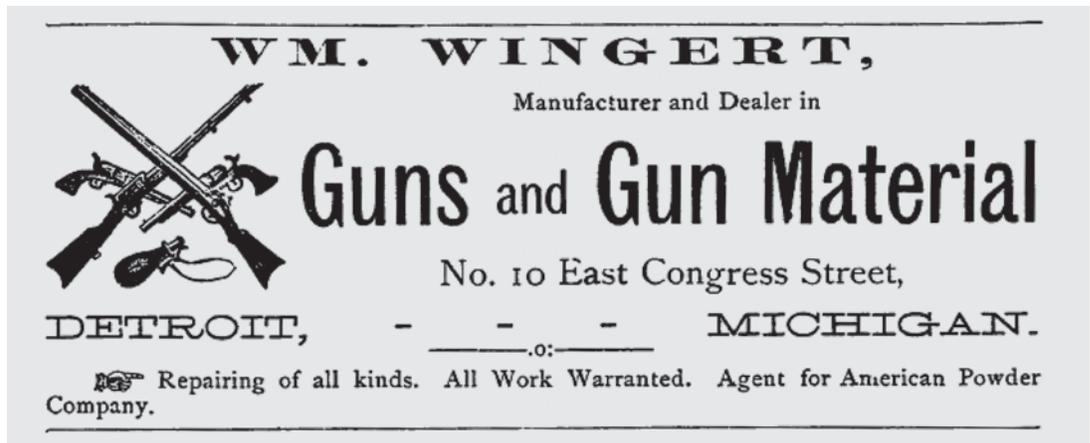
“An arrangement has been entered into for supplying a quantity of plain hunting rifles to the Department of the West, and Wm. Wingert has been directed to make as many as he is able by the month of



**WILLIAM WINGERT,**  
 MANUFACTURER & DEALER IN ALL KINDS OF  
**RIFLES, SHOT GUNS, PISTOLS**  
 AND  
**SPORTING IMPLEMENTS**  
 OF ALL KINDS.  
 Locks of every description made & Repaired.  
 No. 10 Congress St. East, **DETROIT.**

Figure 3. An 1862 advertisement for the William Wingert gunsmith shop in Detroit, Michigan. (from Charles F. Clark’s *Annual Directory*)

Figure 4. After three years working as a butcher, William Wingert was making guns again in 1871 and placed this ad that appeared in the 1873 edition of J. W. Weeks *Annual City Directory*. By 1875, Wingert had retired. (from J. W. Weeks & Co.'s *Annual City Directory* 1873, 1875)



**W.M. WINGERT,**  
Manufacturer and Dealer in  
**Guns and Gun Material**  
No. 10 East Congress Street,  
**DETROIT, MICHIGAN.**  
Repairing of all kinds. All Work Warranted. Agent for American Powder Company.

December, and is issued that all he may turn out will be accepted at fair price, whether there be a dozen or a thousand. Mr. Wingert is employing a large force in their manufacture.”

Half-stock rifles with heavy barrels similar to the one found at the Warner house were used by sharpshooting regiments during the Civil War, though in larger calibers. A period photo of Hoel Wright from Berrien County, a member of Brady’s sharpshooters attached to the Michigan 16th infantry, shows him posing with just such a rifle and powder flask (Brady’s *Michigan Sharpshooters* 2014).

Wingert became one of the most prominent and well-known Michigan gunsmiths during the nineteenth century (Kelly and Wiltse 2013). However, his shop, known for the sign “Sign of the Big Gun,” actually sold a variety of hunting and sporting goods. An advertisement from the 1852 *Democratic Expounder* enumerates a variety of products offered including cutlery, razors, scissors, ammunition, powder, tools, and hunting knives. Even door locks, keys, dog calls, dog collars, and iron window sash were also advertised for sale.

Major components of rifles including the barrel, lock, and stock were often

made by manufacturing specialists. This approach would seem to be especially useful when filling large orders such as those for the U.S. Army in a timely fashion. Makers of these components would stamp their name on the bottom of the barrel and on the outside of the lock. Gun manufacturers, who would assemble the pre-manufactured components, would stamp their name on the top of the barrel of the completed rifle. Despite inspection of the lock (interior and exterior) and barrel removed from the stock no other additional maker’s marks were discovered.

This gun has a rifled 29½-inch octagon barrel with seven grooves, and weighs 8.6 lbs. The overall length is 44¾ inches. The caliber is estimated at .32 or .33 and the barrel is 1 inch wide across the flats. Standards for the manufacture of barrels during the early mid-nineteenth century were lacking, and calibers could vary based on the equipment on hand, as well as the amount of wear on the cutting bits. No other name is stamped on the barrel, but Remington was known to produce barrels for a wide variety of gun manufacturers, including Wingert (Old Guns 1998). A simple test using the ramrod revealed that it was not loaded. Attachment to the front of the stock was achieved with a transverse pin seated through the forestock

escutcheons and a hole drilled in the bottom of the barrel. The adjustable ear site may have replaced a previous fixed style though other Winger rifles also included the adjustable type.

The process of making the barrel involved hammering a red-hot strip around a steel rod, starting with a U-shape and finishing as a thick pipe (Figure 5) (Roberts 1944). The octagon edges were then ground flat on a water-powered grindstone and the interior of the barrel was reamed smooth with a drill bit. Grooves to form the rifling would be cut individually using a wood corkscrew-like guide that keeps the grooves evenly spaced. Rifling, unique to each gun, forces the bullet to spin, greatly improving accuracy. The barrel would then typically be given a brown finish that took repetitive steps to complete (Roberts 1944). Instead of brown, this barrel shows navy colored bluing from modern restoration in areas enclosed by the stock. Custom bullet molds were then made for the finished barrel.

The walnut stock terminates in a pewter nose cap and a single groove embellishes the cheek piece. A slot was cut from the top of the stock for the ramrod, instead of an enclosed cavity drilled from the end. Cutting the slot from the top was a safer approach that allowed for fewer defects than attempting to drill a deep hole which on more than one occasion resulted in the bit exiting through the side or bottom of the stock. The cap box, made of brass, was probably unused, but may have held patches or grease (Figure 6). The butt plate and trigger guard with spur are made of brass, however the trigger guard may have been nickel plated. The trigger guard is attached with two iron screws, with at least one appearing to be hand cut that is especially noticeable by the off-center slot. The trigger is made of brass as well as the trigger plate. A toe plate on the bottom of

the stock terminating at the butt plate is attached with four German silver screws of three different head sizes. The smallest attaches diagonally into the butt plate.

Gunsmiths were known to buy parts such as locks from other manufacturers and assemble them under their own name, however, no maker's mark appears on the interior or exterior of this lock. Other samples described by collectors and listings from online auctions reveal that Wingert did use a variety of "Remington," "R. Ashmore," "Stratham," and "JOSEPH/GOLCHER" locks. An advertisement from 1862 touts "locks of every description made and Repaired" and samples of locks marked 'WM WINGERT DETROIT,' similar to the stamp on the barrel, have been documented (Clark 1862; Kelly and Wiltse 2013).

Several parts of the lock mechanism are worn, preventing the hammer from staying cocked. The lock exhibits moderate embellishment including engraved scrollwork and imagery of a marsh hunting scene. A leather patch is used to fill in the square hole that the hammer attached to. The lock cavity is slightly widened to make room for a tang sitting slightly too low on the lock mechanism, though it should be noted that this was found on other Wingert-made samples. Further, it appears that some of the screws in the lock mechanism had been removed at some point. It is unclear if the hammer was replaced though the scrollwork on it matches well with that found on the lock plate.

Such a hodge-podge of parts (iron screws fastening a brass trigger guard, barrel and locks from various manufacturers, etc.) would seem to suggest that many may have been installed as replacements over time. However, detailed descriptions on several complete Wingert rifles provided by authors James Kelly and Dorr



Figure 5. Display of barrel-making process at Colonial Williamsburg including formation of the octagon barrel from flat stock and lathe to turn the rifling. (Photos by the author)

Wiltse, Jr. in *Michigan Gunsmiths from the 18th through the Early 20th Centuries* along with other examples described online might suggest that this was actually the norm for Wingert's manufacturing and assembly process. Kelly and Wiltse described one rifle (.44 caliber and barrel 1½ across flats), nearly identical to the one found at the Warner house:

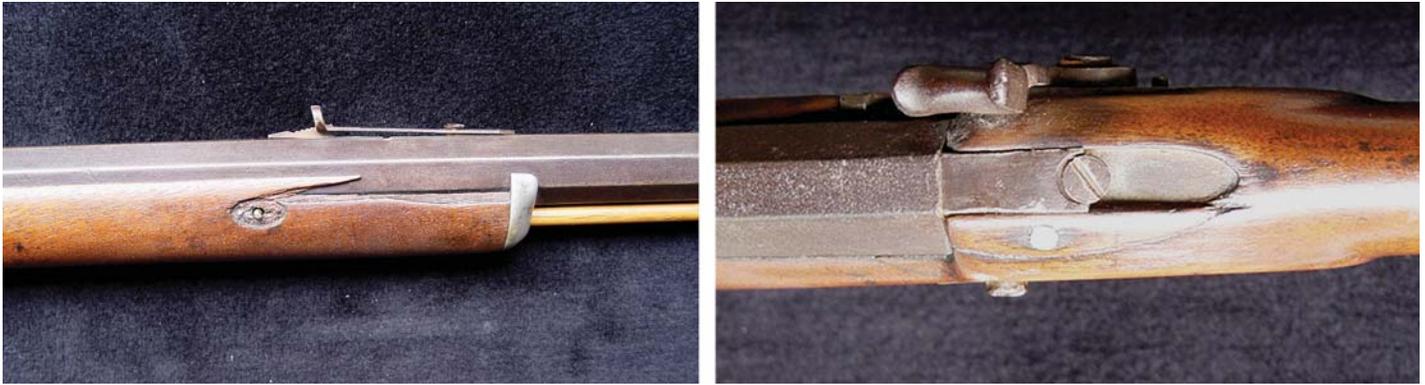
"The brass capbox of this Wingert holds old round cut greased patches. The triggerguard, made with a spur, is fastened to stock with two iron screws. Other brass hardware includes a small sideplate, and a pair of brass wedge escutcheons each held with two iron screws. This rifle uses a brass trigger hung in a brass trigger plate. The hook breech has a 5½" long tang. The bolster is forged on to the barrel. It has an iron globe style front sight, and a rear sight adjustable for elevation. The bar action lock is marked Henry Parker Warranted." (Kelly and Wiltse 2013).

Further, some of the seemingly odd part combinations such as iron screws with a brass trigger guard or German silver screws with a brass toe plate fasten parts that in most cases would never need to be removed for regular operation or maintenance. It is likely that mid-grade guns such as this one were assembled with parts originating from a variety of suppliers as a standard manufacturing process rather than representing replacements over time.

Although the gun could have been manufactured as early as 1837, stylistic attributes suggest a slightly later time frame. Earlier percussion rifles exhibit a flat or slightly curved butt plate, while this rifle has a butt plate that is highly curved. Also, the smaller cap box and rounded lock plate are indicators of a later period.



Figure 6. Analysis of the various components provides clues to the age and history of the rifle. (Photos by the author)



**Figure 7. The rifle shows evidence of fractures and repairs to the stock. (Photo by the author)**

Earlier styles had larger patch boxes that terminated at the butt plate and more pointed lock plates. The length of the breech tang complete would have been considered somewhat average, but is missing the proximal half. The lock is held in place with a single bolt with escutcheon, a classic late feature of the 1835–1845 era (Doyle Smith, personal communication regarding examination/analysis of the rifle 2008). Last, the rectangular dragoon style trigger guard is somewhat ornate while earlier versions were usually round, without the finger loop. Based on these attributes, it is likely that the gun dates from 1840 to 1860, with the greatest probability of circa 1845.

Overall, the rifle is in remarkable condition albeit with several missing components. As it was black with dirt and grime when Lynn found it in the attic, he proceeded to clean it and provide restoration (Lynn Chase, personal communication 2008). Two escutcheons, of brass or German silver are also missing. The simple wooden ramrod is carved at the end to make room for a cleaning patch. It is unclear if this ramrod is original and has begun to splinter in one area. One of the two iron thimbles that held the ramrod as well as the percussion drum and nipple are missing. The drum was cleanly removed rather than broken.

The gun was deemed medium grade

when it was built due to extra items such as the patch box, escutcheons, and pewter nose cap. Plainer rifles are typically absent these items and also are lacking the elaborate trigger guard. Finer made guns would have a double trigger, carving on a tiger stripe maple stock, German silver inlays, and a more elaborate patch box. The toe plate also exhibits a certain level of intricacy, leading to its middle grade status. Based on historical and archaeological evidence the Timothy Warner family led a middle class lifestyle, and a gun of this grade fits nicely with that assessment.

The caliber of .32 to .33 would have been useful for hunting small game and varmints, with a maximum effective range of 200 yards. The rifle is estimated to have only been fired around a dozen times as it has minimal pitting near the drum on the barrel and no cone had formed on the inside of the hammer (Doyle Smith, personal communication regarding examination/analysis of the rifle 2008). Conversely, hash marks usually located on the thumb grip end of the hammer are missing, either worn or filed away. A screw attaching the hammer has a fillister head and may indicate that it was replaced or at least repaired at some point. A piece of leather around the hammer screw was likely added to reduce “play” between the hammer and action.

A crack in the stock near the rear of

the breech plug was repaired, revealing that the user intended to continue using the gun even after a mishap (Figure 7). Interestingly, the stock is devoid of major nicks and scratches usually found on guns used for hunting. This lack of use-wear could be simply from minimal use, replaced parts, or from the refinishing process. Functional use of the gun may have ceased after a portion of the receiving tang broke and a piece of the stock forearm separated, fractures consistent with dropping a gun.

A companion powder flask, made of stamped copper or brass was found with the gun (Figure 2). No name has been found, however it matches well with those manufactured by Hawksley or Dixon and is contemporaneous with the rifle. A Wingert advertisement from 1851 notes that “Dixon and Sons’ Powder Flasks of all kinds;” were available for retail sale. The rings on the sides have been replaced with steel eye screws. A second set of rings may have appeared on the sides at the widest point. Otherwise complete, it has vertical fluting that terminates in embossed scroll-work at the top. Several dents and green corrosion mar the surface.

Evidence for firearm use is not limited to a nearly an intact rifle, powder flask, brasses cases, and lead scrap. Excavation of over 4,400 ft<sup>2</sup> have revealed that more than one ceramic vessel fell victim to a session of target practice. One example includes large sections of a salt glazed stoneware butter churn recovered from Feature 15, a post-Civil War era refuse pit located in the back yard. Two nearly uncirculated coins, dated 1865 and 1868, were found below and with sherds of the churn in the feature. Reassembled body sherds revealed a conchoidal fracture consistent with a bullet impact (Figure 8). One of the sherds exhibiting this impact fracture was recovered at the same depth as the 1868

nickel in Feature 15. The impact void measures approximately 0.31 inches, matching well with an estimated caliber of .32/.33. The vessel has a salt glazed exterior and a New York Albany slipped interior along with simple cobalt decoration.

Fragments of the churn were also recovered outside of Feature 15. Oddly enough, efforts by the author to address a loose furnace duct in the crawl space of the house in January 2010 were rewarded not only with a successful repair but also with two large sections from the base of the churn. These sherds, over 50 ft away and below the house, fit to others recovered from Feature 15 and elsewhere located in the back yard sheet midden.

As the house is purported to have been built in 1855, the base fragments would have been deposited before that time, presumably during the log cabin era dating to the 1840s to mid-1850s. However, large sections of body sherds, including one with a conchoidal fracture, were deposited post-1868 based on the 1868 nickel found with them in Feature 15.



**Figure 8.** Fractures consistent with bullet impact were found on a stoneware churn. (Photo by the author)

The churn may have been repurposed for another use after the fractures were sustained to the base and ultimately deposited with other mid-nineteenth century refuse found in the feature. The rifle, dated to circa 1845, fits well from a temporal standpoint predating the feature deposit. Although the evidence is not entirely conclusive, it does leave open the interesting possibility connecting curated family possessions such as the gun and powder flask and archaeologically recovered materials related to a target practice event occurring nearly 150 years ago.

## Discussion

It is unclear precisely how and when the family came to possess the rifle. Manufactured goods from Detroit were brought for sale and trade to the Brighton area, taking several days to arrive. Given that the age of the rifle dates it to the mid-1840s, it is unlikely that they purchased the gun while migrating from upstate New York to Michigan in 1837. The fact that Wingert began operation as a gunsmith in that year does leave open the opportunity.

The proximity of the Wingert gunsmith shop in downtown Detroit made it well positioned to supply many New Englanders, especially New Yorkers such as the Warner's, either by the land route by way of Toledo or those taking a water-based route across Lake Erie. Departing from Buffalo, New York to bypass the Niagara Falls, many Michigan bound pioneers chose to cross the lake to land at Detroit. Oxen, wagons, and various equipment including guns and other firearm related supplies would have been purchased before making the journey to search out land. The Samuel Conely family, neighbors of the Warner's arriving in the same year, took this exact route (Ellis 1880). However,

unless specific evidence such as a dairy entry of bill of sale becomes available, information on when and where this item was purchased will remain purely conjectural.

A biography of Timothy Warner notes that he "was never much of a hunter" and had "frequently exchanged beads for venison with the Indians" (Chapman Brothers 1891). The typical rifle carried by westward pioneers in the late-1830s were often .45 or .50 caliber, useful for defense and the hunting of large mammals. Those destined for Michigan appear to have carried slightly smaller calibers. James Kelly, senior author of *Michigan Gunsmiths from the 18th through the 20th Centuries*, suggests that "A disproportionate number of the Michigan rifles I have seen are in the range of .38 to .41 caliber." (Civil War Talk 2013). Kelly maintains that these rifles were used to hunt large mammals such as deer and even bear (Civil War Talk 2013). One major advantage of smaller calibers is the conservative use of lead, a desirable commodity at the time. Timothy Warner may have turned to a small caliber to pursue more readily available small game given his apparent lack of prowess with a gun.

Stories specifically related to the history of the rifle before it was discovered are still part of the living memory of the family. Lynn Chase recalled that when he purchased the gun in the 1950s his grandfather Herbert Warner (born in 1855) didn't provide any meaningful background information (Figure 9). However, one family member, Robert Warner (son of Herbert), recently recalled a brief account that the gun was accurate enough "to drive spikes in a tree at fifty yards" (Robert Warner, personal communication 2010). He did not remember where he had heard the story, but supposed it might have been from his grandfather, George



Figure 9. Fifth- and sixth-generation Warner family members (Lynn Chase at left and Tim Bennett) at Archaeology Day at the Michigan Historical Museum in Lansing, Michigan. The rifle has become a standard part of the Warner site display and presentation. (Photo by Kerry Bennett 2009)

Warner, when he was a child. Robert also recalled that the family owned other guns including a single shot 12-gauge shotgun and a .22 pump rifle (Robert Warner, personal communication 2010). Evidence for use of these two types of guns has been recovered from the archaeological record in the form of expended brass cartridge cases and shotgun shell bases.

Genealogical research has revealed through newspaper obituaries and personal reminiscences that two extended family members lived at the residences of the Warner's in the early twentieth century until the time of their death (Robert Warner, personal communication 2010). Alfred Lawson, born in 1824, was the father of Elvira Lawson, who was the wife of George Warner. After George's parents died in 1900, he moved into the Warner homestead while Alfred took up residence in George's previous home about a mile

away until 1906. William Fuller, born in 1842, was the father of Laura Fuller (wife of Herbert Warner) and lived with the Herbert Warner family from about 1920 to 1936. It is entirely possible that the gun was part of their personal items that they brought when they moved in. The rifle and flask, along with other items, may have been stored in the attic and forgotten until it was found by Lynn Chase decades later. Ownership by extended family members might explain why limited information was available through direct descendants of the Warner family.

Although certain style guns were known to make their way into military engagements such as the Civil War, it was unlikely that this rifle saw use in a military context if original ownership is indeed attributed to members of the Warner family. At 44 years old, Timothy Warner was drafted in 1863, but there is

no evidence that he actually served. He may have received deferment in lieu of his position as township supervisor from 1863 to 1865. Despite substantial historical and genealogical information on other potential candidates as original owners of the gun including extended family members Albert Lawson, Nelson Fuller, and William Fuller, there is no indication that they served in the military either.

Archaeological excavations yielded over 100 artifacts directly related to firearm use. Despite the quantity of artifacts, they are limited to brass cartridge cases or bases of various calibers and fired bullets. Conspicuously missing from the archaeological record are any recovered lead balls or shot, percussion caps, or gun parts. Two pieces of lead scrap could potentially be associated with the use of a gun; however, given the long occupation they are just as likely to be associated with more modern uses of lead including melted parts of figurines or soldering applications.

This gun exhibits cosmetic repairs made to the stock, particularly the reattachment of a wood fragment with a metal pin. The most critical repair that would allow the rifle to return to operational service and requiring the specialized skill of a blacksmith, however, was left undone. Leaving the receiver tang broken without repair or replacement would have made the rifle too dangerous to fire without serious risk of injury. It is possible that damage to the receiver and stock occurred at different times; however, the fractures are consistent with dropping of the rifle in a single event.

One intriguing discovery made during examination of the gun is that the wear patterns are inconsistent. The lock mechanism is worn such that the hammer can no longer stay cocked. The hammer itself is worn on the thumb grip area but

doesn't show the pitting or 'coning' on the striking end that would suggest extended firing. In fact, the gun appears to have not been fired extensively as it lacks the pitting around the barrel and lock normally associated with such long term use. What explanation could be given for a gun that is worn extensively in the lock mechanism but lacks use-wear on the same parts associated with actual firing?

Replacement parts would seem to be the obvious answer. However, the inconsistent wear patterns appearing on individual parts make this unlikely. Another distinct possibility was that the rifle was repurposed as a toy. As a sporting rifle with a shorter barrel and half stock, it is small enough for a child to handle. Today, it would be nearly inconceivable to use a real firearm, albeit even in non-working order, as an object of juvenile amusement. However, guns with the bolt or firing pin removed or otherwise disabled were in fact used as toys especially in rural settings until fairly recently without cause for alarm (Roy Williams, personal communication 2014). After the receiver tang broke, it may have been decided that the gun was not redeemable for any continued functional use. Removal of the drum and nipple would make it impossible to fire allowing for safe use as a toy. Leaving the hammer intact, snugged with a piece of leather, provided working action for 'realistic' play. Cocking the hammer numerous times over a period of years could explain the wear on the thumb grip and deterioration of the mainspring/lock mechanism.

Second generation family members would fit well in this scenario. George, born in 1848, was the eldest child of Timothy and Lucretia. He was born in the log cabin and at seven years old was tasked with carrying nails for the carpenters constructing the Greek Revival house (Chase 1997). George once recalled to his

granddaughter, Florence, that when he was young Native Americans often walked by the Warner farm. He described them as “neither friendly nor hostile” but would be wary of them when bringing the cows in for milking from the back woods (Chase 1997). A rifle, even in non-working order, might have provided for ‘show of force’ and sense of security even if threats were only perceived. Other children such as Henry (born in 1850), John (born in 1851), Lovisa (born in 1854), and Alfred (born in 1858) fit well within the time frame for use as a toy especially around the time of the Civil War.

## Conclusion

The rifle is attributed to a Michigan manufacturer, William Wingert of Detroit, based on a partial maker’s mark apparent on the top of the barrel. Examination of key parts suggests that it dates to the 1840s to 1860s with a likelihood of circa 1845. This time frame post-dates the migration from New York in 1837 suggesting it was acquired at some point after their arrival in Michigan. The gun does not show evidence of extensive firing. During at least one episode, it was damaged beyond salvageable use as a firearm. Cosmetic repairs were made, however, those required to deliver it back to working order were not. Inconsistent wear patterns associated with use as a working firearm suggest that it may have been used as a toy after rendered inoperable due to fracture of the receiver tang. The most likely candidate for original ownership is Timothy Warner (1819–1900), though other extended family members living at the Warner residences in the early twentieth century should be considered. The smaller caliber rifle, with its half stock and shorter barrel, matches well

with biographic accounts on Timothy for a person that “wasn’t much of a hunter.” Although over 100 artifacts related to firearm use have been recovered, archaeological evidence of firearm use during the log cabin era is essentially non-existent. A shattered stoneware butter churn with conchoidal fractures suggests it was also involved in the use of firearms, in this case a session of target practice. The churn is similar in age to the rifle and exhibits high velocity impact marks matching well with its caliber.

The rifle and powder flask, some of the earliest artifacts attributed to the family, provide intriguing insights on the Warner’s as valuable reminders of a lifestyle nearly 170 years ago. Genealogical research beyond census records can provide additional clues and possibilities that need to be considered in the archaeological and historical contexts. Family heirlooms, when available, aid our understanding by filling in gaps missing from the fragmentary archaeological record. They are also an example of how some parts of the material culture are distributed across multiple generations, in this case, now curated by a sixth generation family member. Combining extensive historical, genealogical, and archaeological research has provided a fuller understanding not only on the analysis of the rifle and powder flask but also the background of several generations of the family connected by its use and ownership.

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