

Jonathan Hennem and His Screwless Lock

By Jeff Paine

During the War with America, the Board of Ordnance was concerned primarily with the supply of arms for the troops. There was little time or resources for the luxury of experimentation and development of small arms. As the War in America wound down, the pressure for arms production waned. The subsequent peace treaty and the appointment of the Duke of Richmond in April 1783 as Master General of the Ordnance prompted a new era focused on innovation and experimentation. This brief period was to end a short time later when war with revolutionary France commenced in 1793; however, these 10 years brought Henry Nock and Jonathan Hennem to the forefront in innovation through the development of “screwless locks” designed for ease of maintenance and reliability.¹

While the name Henry Nock is familiar to most collectors and arms historians as a prolific manufacturer of civilian and military arms in the last quarter of the 18th century, Jonathan Hennem (various spellings are recorded) is less well known.

Jonathan Hennem was originally from Southampton where his marriage to Mary Figes is recorded in the Southampton parish of St Michael on April 1, 1771. The Hampshire Directory published by J. Sadler in 1784 contains an entry for a “John Heunem [sic] Gun-smith, High Street.”

In May of 1781 Hennem submitted a lock of new design to the Board of Ordnance for consideration. The Master Furbisher, Ambrose Pardoe, in charge of the Small Gun Office in the Tower reported favorably on the lock and the Board ordered two muskets to be altered to accept his lock.² This initial consideration apparently led to a series of tests at Woolwich involving Hennem and Ordnance officials which culminated in an order for additional locks on October 18, 1783, by the Master General.

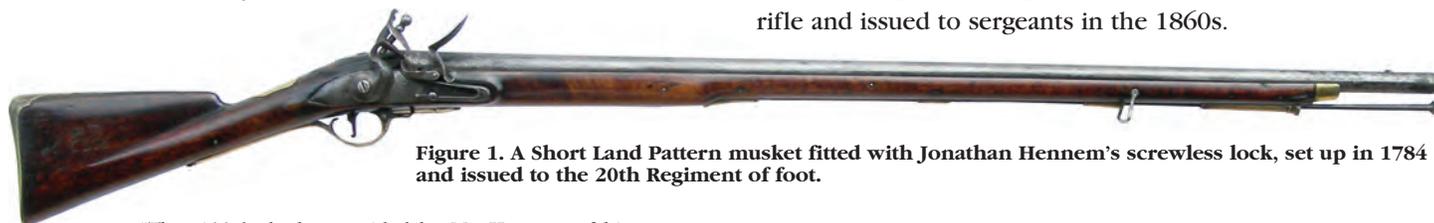


Figure 1. A Short Land Pattern musket fitted with Jonathan Hennem's screwless lock, set up in 1784 and issued to the 20th Regiment of foot.

“That 100 locks be provided by Mr. Hennem of his own Construction and that an Imprest of £70 may be granted to him towards Completing the Order, the said locks being found of great Utility in His Majesty's Service.”³

At some point the order was expanded as on June 12, 1784, Hennem submitted a bill for 400 musket locks and 400 spring “lifters.” His bill was itemized as follows⁴:



Editor's note: New member Jeffrey Paine wanted to share his work on screwless locks via the *Bulletin*.

Musquet Locks upon) Black 201 @ 8/6 -	£85 86
his last Improved)	
Construction) Polished 199 @ 8/9 -	£87 13
Spring Lifters for do.	400 @ 3d. -	£5 00
		£177 99

The “spring lifters” mentioned in Hennem's invoice have not been identified, but they were probably simple non-adjusting spring clamps with fixed jaws which could be placed over springs once they were under compression. Once tension on the springs was relieved, the spring, held compressed by the lifter, would be unhooked from its retaining pins and removed. Presumably these tools would be similar to the spring clamp used on the Pattern 1853 Enfield rifle and issued to sergeants in the 1860s.

Serious field trials commenced in 1784 as the Board of Ordnance ordered 308 muskets fitted with the Hennem locks to be issued to the 20th Regiment of Foot (Figures 1 and 2). The Regiment was stationed at Plymouth but about to depart for service in Ireland. In July 1784, Hennem was granted a contract involving a per diem payment and expenses to instruct the soldiers of the regiment in the use



Figure 2. From the exterior, the lock appears little different from the conventional lock. The only obvious differences to be seen are the pin for the frizzen and the peg upon which the frizzen spring hooks.



Figure 3. The interior of the lock shows the absence of screws with all parts being hooked into place with pins. The two-piece tumbler bridle can be seen which is rotated into position and held in place by the cock screw which passes through the tumbler and the peg for the sear.



Figure 4. An disassembled view of the lock clearly illustrates the elongated cock screw which passes through the tumbler.

and maintenance of the locks (Figures 3 and 4). He followed the regiment to Cork and traveled to various places where the regiment was stationed to instruct the men, returning on the October 17, 1784. After his return, he was

asked by the Board to submit two muskets to act as patterns and he was granted £100 as an award for his invention.

Having cemented his relationship with the Board of Ordnance and likely seeing future opportunities for contracts with the Board, he moved his business to the Armory Mills at Lewisham.

The Armory Mills on the River Ravensbourne at Lewisham were located just over a mile to the southwest of Greenwich. Since the time of Henry VIII, the grindstones and “glasinge wheels” (polishing wheels) powered by water-wheels had been used to grind and polish iron and steel for armor. When armor became obsolete, the mills were no longer needed for that purpose and they fell into disrepair. From the 1640s they were leased to private concerns.⁵ When Richard Hornbuckle, the previous lessee, died, Hennem obtained a 21-year lease on the Armoury Mills at £50 per year beginning in December 1784. It was here that he carried out Ordnance contracts to refurbish barrels and bayonets, to rough stock muskets, and to manufacture locks and muskets.

Hennem’s lock next saw use on another experimental arm which had been submitted by Durs Egg to the Board of Ordnance for consideration. This was a breech-loading carbine based on an action designed by Guiseppi Crespi of Milan and produced for the Austrian Cavalry. In January 1785, it was recommended that 30 be made—10 with barrels of 28 inches, 10 with 33-inch barrels, and 10 with 38-inch barrels, each to be fitted with Hennem’s lock.⁶

The experiment with these weapons does not appear to have resulted in further orders and the next use of Hennem’s lock appears to have been on yet another experimental musket. In April 1785, he was given a contract to make 90 muskets to the design of the Duke of Richmond.⁷ Finally, on October 1, 1785, Hennem was asked by the Colonel of the 22nd Regiment, Major General Charles O’Hara, to alter the Regiment’s muskets to use his pattern of lock.⁸

In spite of the promising indications that the Hennem lock might be considered for universal adoption, this was not to be. A screwless lock designed and developed by Henry Nock had captured the attention of the Duke of Richmond, and ultimately this new lock won out, being employed in the two patterns of the Duke of Richmond’s musket. Although Hennem’s lock was not universally adopted, Hennem nevertheless continued with a successful business as a gun maker, manufacturing and refurbishing arms at the Armory Mills until 1805.

The musket illustrated (Figure 1) is a survivor from the 308 muskets issued to the 20th Regiment equipped with Hennem’s lock. The lock appears at first glance to be of conventional construction; however, it has clearly been designed for rapid disassembly (Figures 3 and 4). Pins replace



Figure 5. A close-up view of the tumbler and the two-piece bridge.

screws and the sear spring and frizzen spring hook over pins fixed to the lock plate. The tumbler bridge also fits over pins and is fixed into position by a plate fixed to the bridge, which rotates to hook under the slots in the pins that are located in the position conventionally occupied by the bridge screws. The cock screw, in addition to fixing the cock to the tumbler (Figures 5, 6, and 7), passes completely through the tumbler to act as the axis for the tumbler. The mainspring hooks under the pan fence similar to sporting arms of the period and thus dispenses with the requirement for a screw to fix it to the lock plate. Finally, the frizzen is held by a removable pin rather than a screw.

In addition to the screwless lock, it appears that the lock itself was fixed to the musket without the use of sideplate screws. Currently, the musket illustrated contains a single lock screw with the front of the lock plate retained by a hook. However, close examination shows traces of the original mechanism which allowed for a quick release of the lock. Visible on the top of the musket near the tang is what



Figure 6. The left-hand side of the musket is shown. The side plate with its forward screw hole brazed over can be seen; also visible are the two iron nails which hold the side plate in position. The single side screw shown next to the barrel tang, was disabled and plugged.



Figure 7. The lock inletting shows the pin which retains the forward part of the lock. Also visible is the relief inletting to enable the peg (now replaced with a lock screw) to swing free of the wood after the lock release catch is depressed.

remains of a catch, now disabled, which allowed the release of the lock. A short pin attached to the lockplate would have engaged the catch, thus allowing the lock to be removed by pressing the release button for the retaining catch. The lock cavity shows inletting to provide a clearance to allow the shortened "lock screw" to swing free of the lock mortise. Interestingly, it appears the original musket was setup using a conventional lock and later converted to accommodate Hennem's screwless lock. The sideplate has had its forward hole filled with brass, brazed or peened into place, but the hole for the forward lock screw is present despite its replacement by the forward hook. The sideplate itself which would have been unnecessary in a musket set up for Hennem's lock has been fastened with two iron "nails" to prevent its loss.

The 20th Regiment served in Ireland until 1789, after which it was stationed in Canada arriving in Halifax on June 15, 1789. In 1793 the Regiment departed for the West Indies.⁹ The musket illustrated was originally found in Baddeck on Cape Breton Island. The 20th Regiment is marked on the barrel (Figure 8) and "1st R CBM" (First Regiment Cape Breton Militia [Figures 9 and 10]) is neatly carved on the right hand side of the butt.



Figure 8. The musket was issued to the 20th Regiment and used in Ireland and later in Canada. The barrel is engraved: XX REGT.



Figure 9. The musket is marked to the 1st Regiment of the Cape Breton Militia on the right side of the butt. Clearly this musket was left in Cape Breton when the Regiment departed for the West Indies in 1793. Whether or not all of the Hennem muskets were left behind in Cape Breton remains unknown.

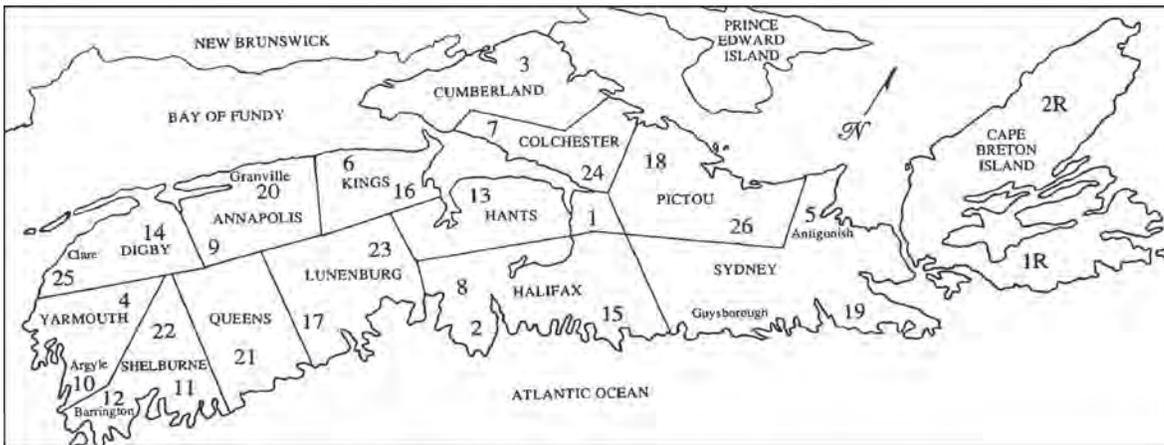


Figure 10. At the time of the Militia Act of 1795, Nova Scotia was divided into 14 districts. By 1808, 26 battalions of Militia occupied the province.¹⁰ The First Regiment of Cape Breton Militia occupied the southern portion of the island. The musket was found in Baddeck on the northern portion of the island.

REFERENCES

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8. H.L Blackmore, 1955 p. 175.
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