Guns Made in Windsor, Vermont

by: Eldon J. Owens

My talk today is the story of a small town and its contribution to the world of firearms. Windsor, Vermont was at the time of gun manufacturing, and still is today, a small town located on the east border of the state on the Connecticut River. The population in 1850 was less than two thousand, and even today has only three thousand residents.

The first known gunsmith in Windsor was Asa Story. He started making guns about 1825. While it has long been on record that he made quite a number of guns, I have also found rifles made by two of his sons, William and Pascael. Perhaps the greatest thing that Asa Story did was to train a certain young man in his shop in the ways of gun making. This was a man destined to be the best known of any Windsor gun maker, Nicanor Kendall.

The story is told of Kendall and his girl friend riding in a sleigh when he noticed a squirrel in a tree. As he started to draw his rifle from beneath the robe the hammer caught, and caused the gun to fire. While neither party was hurt, this prompted Kendall to invent or perfect the type of underhammer in which the trigger and hammer were protected by the same guard. This was soon changed to the conventional underhammer without the guard over the hammer. This type of underhammer gun has several advantages over the standard side lock: it is an easier gun to stock, there is a clear sighting plane, no falling hammer in sight to cause flinching, the exploding cap cannot cause eye damage, and the lock consists of seven parts instead of fourteen in the conventional lock.

The manufacture of Kendall guns was carried on under the contract system in the State Prison in Windsor. The system of pay at the Prison was that the contractor paid to the State, not the prisoner thirty-three cents per day for the labor of each man. If he did not do all that was expected of him the State was to return that day's pay and the prisoner was placed in solitary confinement. There were no strikes or labor problems.

In 1835 American settlers in the territory of Texas found themselves at war with Mexico. When they found that the Kendall gun could be purchased for about half the cost of a musket, several hundred were ordered. Partial payment for these guns was in the form of land, 1920 acres being deeded to Kendall in 1836. One wonders who came out best in this deal, but that must have seemed like a great deal of land to a Vermonter.

One gun made by Kendall that was not his invention was the Bennett and Haviland. This unusual chain feed rifle was invented by two men from the State of Maine, Epenetus Bennett and Frederick Haviland.

Another gun made by Kendall was the Harmonica rifle. This is usually five shots and operates with a sliding bar holding the charges. This gun has been considered a Kendall invention but in comparing the Bennett and Haviland with the Fisher-Chamberlain gun made by C. B. Allen in Springfield, Mass., one notices many similarities. The stock, forearm and hardware are nearly identical. This Fisher-Chamberlain gun was made in 1837, a year before Kendall made the Bennett-Haviland. It is my belief that Kendall purchased unused parts of the Fisher-Chamberlain and used them to build the Bennett and Haviland. If this was the case, Mr. Kendall certainly had seen the harmonica style and copied it closely rather than inventing it.

Kendall also made types of guns other than the underhammer rifle. Various smooth bore shotguns and a side by side rifle-shotgun are known. He also made single shot pistols in the usual underhammer style. Another gun I believe, but have been unable to prove, made by Kendall is the Whittier Revolving rifle. We know it was patented by Otis Whittier of Enfield, N.H. in 1837. Enfield is quite close to Windsor and I am sure had no facilities to manufacture such a gun. The general shape of the rifle closely resembles the Kendall and engraving is of the Windsor style. Perhaps someday we will have the facts about this.

In 1838 a young man by the name of Richard S. Lawrence went to work for the Kendall firm for $100 a year and board. At the end of six months he was expert enough to be put in charge of manufacturing. The foreman of the Prison shop was also the turnkey so had to lock up the prisoners that worked for him each day.

The usual rate of pay of an apprentice learning the gunmaking trade was rather low, as a paper signed by Kendall and Lawrence shows: "It is this day agreed on between Kendall, Lawrence and Marshman D. Lull that said Marshman shall serve an apprenticeship of three years commencing Nov. 18, 1844 and receive in the time his board

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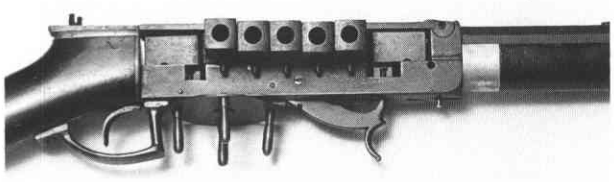
Flask for Robbins and Lawrence Pepper Box

Robbins & Lawrence Pepper Box with original box

Kendall Underhammer Pistols



Bennett & Haviland Chain Feed Rifle

and for the first year Thirty Five dollars, second year Forty dollars, and for the third year Fifty dollars."

In 1844 the firm of Robbins, Kendall and Lawrence was formed. Samuel E. Robbins had made a fortune in the lumber trade in Boston and in Maine. He retired to Windsor, but after meeting Kendall and Lawrence this corporation was formed to bid on gun making for the Government. Their first job was to build 10,000 model 1841 rifles for $11.90 each. This contract was finished well ahead of time and the company did well from it. While the military model of the Robbins, Kendall and Lawrence is well known, the firm also made some sporting guns. Most of these guns look very much like Kendall underhammers but one that is different is a market shotgun of .90 caliber that must have been deadly on a flock of ducks or geese. About this time Mr. Kendall sold his interests and the company became Robbins and Lawrence. The Government now gave them a contract for 15,000 of the same 1841 model gun.

In 1846 the construction of a new brick armory was started. Only one building remains of this complex; it is now the American Precision Museum and is filled with early machine tools and their products.

At this time Robbins and Lawrence started the manufacture of railroad cars. I will not go into this venture except to say it was not a success and the firm lost $134,000 in it.

In 1850 Robbins and Lawrence started to manufacture the Jennings rifle for Mr. Cortland C. Palmer of New York. This rifle was designed to fire the self-contained Hunt cartridge and to be ignited by tiny pellets of fulminate. It was at this time that a well known name, B. Tyler Henry, comes into this story. Henry and Lawrence had to do a great deal of design change on the Jennings, and also developed a single shot model.

It was while developing the Jennings rifle that Mr. Lawrence claims he invented the greased bullet as we know it today.

Robbins and Lawrence also branched out into pistol manufacturing. It is claimed that at this time Mr. Daniel B. Wesson, another well known name, came to Windsor with the pepperbox invented by George Leonard Jr. of Shrewsbury, Mass. Wesson and Lawrence re-designed this gun and the manufacture of the Robbins and Lawrence pepperbox was started. These were made in two sizes, 28 and 31 caliber, and the main difference from other pepperboxes is that on these the barrels are stationary and it is the firing pin that revolves. It was at this time that Mr. Daniel Wesson became acquainted with B. Tyler Henry and while it has nothing to do with this paper, it was of great importance to the gun making world later.

Another gun being made was the Sharps carbine. After having models built by other gunsmiths, Christian Sharps in 1850 brought his invention to Windsor where Robbins and Lawrence contracted to perfect and build 5,000 of them. After the manufacture of this order Robbins and Lawrence decided to build a factory in Hartford, Conn. to continue the Sharps business. Richard Lawrence later pat-

ented the Sharps rear sight, a pellet cut off, and a gas check used on Sharps guns.

Mr. Lawrence, not content to work on guns invented by others, had his own invention of a carbine patented. The carbine, patented in 1852, was made to fire the Sharps linen cartridge. It was never put into production and I know of only the one gun of this pattern.

This seems to be a good time to say a word about engraving. On many of the Windsor made guns is a rather distinctive type of engraving. It features floral and shaded scroll work in a bold flowing style. Many of the guns have some of the engraving on the barrels as well as on the locks. The pepperboxes are a good example of this and I find that one without engraving is more unusual than the ones with it.

Among the convicts working in the prison gun shop was one doing time for bank note forgery or, as we know it, counterfeiting. Mr. Christian Meadows was an expert at his trade and did some fine work on guns while in prison. Even the Governor was impressed and not only gave him a pardon but also a hundred dollars towards the purchase of a house. Meadows lived the rest of his life in Windsor and continued to engrave guns as well as silver for a local silversmith.

The firm of Robbins and Lawrence were also the manufacturers of gun making machinery. Many of the rival gun makers purchased these machines and they were in use in some cases for nearly one hundred years. In 1851 the Crystal Exhibition was held in London. Robbins and Lawrence showed their military rifles and the British were very excited about the quality and the interchangeability. Therefore they were able to sell most of the machines, 150 in all, to equip the new Enfield Armory in England. A later contract for the making of 25,000 Enfield style rifles was given Robbins and Lawrence. This contract had a stiff penalty clause if delivery was not on schedule and proved to be the breaking of this company. Although 10,400 of these guns were delivered I do not have one to show. There have been several of the locks found in the area but few complete guns.

When the Robbins and Lawrence factory and equipment was sold by their creditors it was purchased by Lamson, Goodnow and Yale. They bought this factory to manufacture sewing machines, but when the Civil War broke out they turned to the making of guns and gun machinery. Their first move was to sell off the surplus Enfield bayonet machinery for more than the cost of the entire plant. I quote a letter from Hartford, Conn. where Mr. Lawrence moved with the new Sharps factory. "Dear Sir, in communications with Lawrence last evening I ascertained that Colt wanted to purchase our bayonet machinery.

"His agent Mr. Root spoke to me some days since respecting machinery but did not specify what he wanted. I referred him to you and soon he will go up to see you and machinery. I think you can venture to ask him a pretty good price as Lawrence said *he must have it.* Signed; T. Belnap."

Top: Palmer Carbine by E. G. Lamson & Co.. *Center:* Sharps Carbine by Robbins & Lawrence. *Bottom:* Lawrence Carbine, Pat. 1852.

Closeup of Sharps Carbine Action

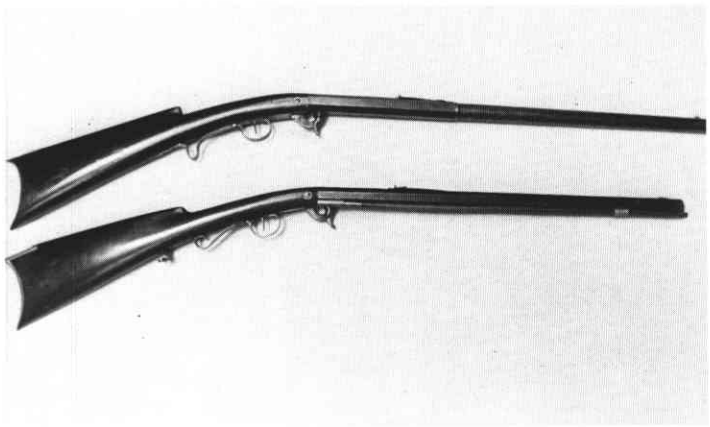
Lawrence Carbine, Action Closed

Lawrence Carbine, Action Open

During 1861 Lamson, Goodnow and Yale secured contracts to make 50,000 of the .58 caliber rifles, more commonly known to collectors as the L.G. and Y. After completion of this contract Yale and Goodnow were bought out by Lamson and the name of this firm was now E. G. Lamson and Co. It was this company that made the carbine patented by Albert Ball in 1863, that I feel would have made a fine weapon had it been completed in time to use in the War. At this time the Lamson company was also making the Palmer carbine. This was a single shot bolt action gun but was also completed too late for use in the Civil War. There were 1,001 of these completed.

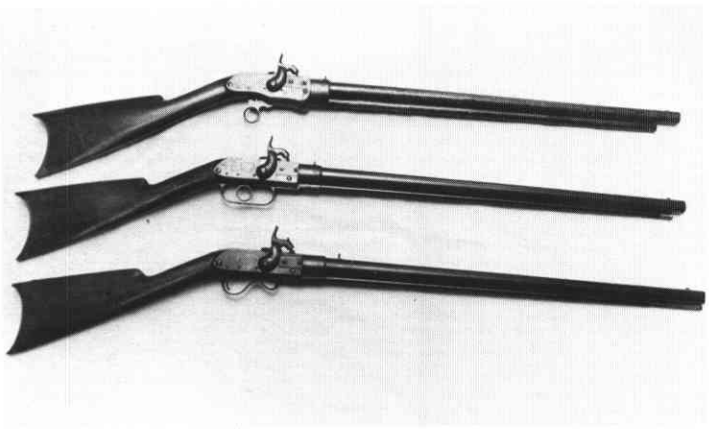
Col. Berdan of Civil War fame was working here on a conversion of the musket to breech loading, but again it was a case of the War ending before he had completed it.

This brings to a close the manufacture of guns in the small village of Windsor, Vermont. The Lamson firm did continue and is now Jones and Lamson, a very large machine tool manufacturer in nearby Springfield, Vermont.

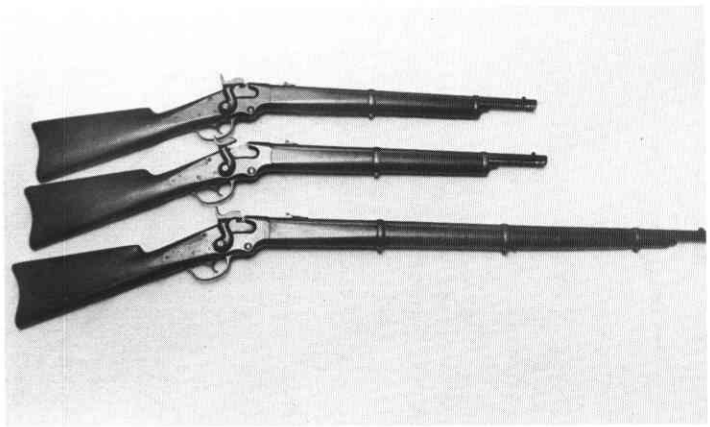


Nicanor Kendall Buggy Rifles

Action of Lower Kendall Rifle



Jennings Rifles. *Upper:* A repeater; *Center:* a single shot, and, *Lower:* converted to muzzle loader.



Upper: Ball Rimfire Carbine. *Center:* Ball Centerfire Carbine. *Lower:* Ball Rifle.

Closeup of Ball Carbine actions
All by E. G. Lamson & Co.