

# An Update on the J. & J. Miller (Millar) Revolving Cylinder Guns

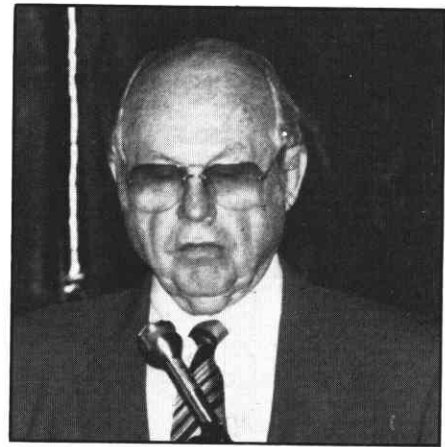
Ernest L. Bates

About 20 years ago, and after the usual false starts in gun collecting, I became interested in revolving cylinder guns. On the surface they appeared to be the answer to the development of multiple shot rifles and shotguns and, after all, the hand revolver had proved to be the most popular and reliable sidearm of the 19th Century. It wasn't until later that I realize how the expensive and unreliable mechanism could prove harmful to the user and therefore limited the production of these weapons.

Early on, I realize that I must narrow my collecting field in these guns and chose the Colt and Paterson rifles and shotguns along with the Miller-Billinghurst long arms. The Colt history was well documented, plus the Miller patent guns intrigued me, as these were the first commercially produced American arms of this type. Of course Artemus Wheeler had made a few hand-revolved flintlock long guns (I believe history records four of these) and Elisha Collier claimed to have made 400 flintlock and percussion revolvers, many of these long guns, but the figure has been disputed, and all of these were made in England. Furthermore, I was taken by the fact that the Millers in the early stages used the Guthrie percussion pill-lock system rather than the cap and ball type. I subsequently found that Joseph Medbury, a Rochester gunsmith for whom they worked as apprentices, believed in this ignition system.

As one might suspect, it wasn't easy to get started in this field and although I had run across a few Billinghurst guns, the Millers were almost non-existent. In 1971 I ran ads in the Rochester, New York, newspapers advertising for any old Miller guns that might be languishing in attics. As one might expect in pursuing the impossible dream, the response was nil—except for a letter from a collector in Rochester by the name of Edward Eich. Ed informed me that seldom, if ever, did a Miller Gun surface and then only as part of a display. However, because I lived in Michigan would I help him in researching information on John Miller who apparently, at one time, lived in the Battle Creek area and had been involved in a “suicide hoax.” More about this later.

By pre-arrangement I met Ed Eich at the Rochester, New York, gun show and this in turn provided an introduction to Holman J. Swinney, who is now the Director Emeritus of the Margaret Woodbury Strong Museum in Rochester. Jerry had become interested in



the Miller history through his research of New York state gunsmiths.

In August of 1971 an excellent article appeared in Vol. 9, No. 3, of the *Canadian Journal of Arms Collecting*, by our good friend and American Society member, James Smith. Jim, working independently of Ed Eich, had uncovered much of the same information Ed had, plus a great deal not previously known about the Miller guns, resulting in the most comprehensive coverage of the J. & J. Miller (Millar) guns.

The lack of information concerning the background and later history of the Millers is chronicled in the following paragraph in this fine article: “Over a period of many years an effort has been made by a few interested collectors to accumulate information regarding this American gun maker. The first efforts to determine the origin started in 1950 when pictures of the Miller revolving rifles appeared in the *Gun Collector*, Nos. 38, 40, and 41. Although a great deal remains unknown about the J & J Millers (John and James) it is felt that enough factual information has been accumulated to place them in their proper category and relationship to other gun makers of the nineteenth century.” Interestingly, both Jim Smith and Ed Eich speculated that James Miller or Millar had died in 1837.

After meeting with Ed Eich and subsequently with Jerry Swinney, arrangements were made to meet with Jim Smith at one of the Hartford shows. There it was decided to form a team, Ed, Jerry, Jim and myself, to learn what we could about this important segment of gun history.

Previous research had been conducted primarily

through Rochester, New York, directories, newspapers, and periodicals covering that period of time. It was Jerry's research into the Register of Deeds records that uncovered the "Rosetta Stone" leading to the information we were seeking. This consisted of an entry dated June 1, 1843, conveying property owned by John Miller and Laura Miller his wife, of the City of Rochester, New York, and James Miller of the Town(ship) of Sterling, County of Macomb, and the State of Michigan, to Joseph Hall of the City of Rochester, New York, covering property in Rochester. With this valuable bit of information, I was able to begin my portion of the program, although this was still somewhat of a "needle in a haystack" proposition, as I was dealing with a man who not only had a very common last name but who also had no middle initial or a wife and who interchangeably used the name of Miller and Millar in his business transactions.

Records of the Macomb County Register of Deeds office in Mt. Clemens, Michigan, uncovered the following transactions or conveyances of property for the period starting with the date of June 10, 1835: in Liber E. page 404 it is recorded that James entered into an agreement with Joseph John of Macomb County, Territory of Michigan, to build and operate a sawmill on the Clinton River. At that time James was listed as a resident of Rochester, New York, and in this contract he used the name James Miller. On September 12th of that year, in Liber E. page 532 it is recorded that James Miller also purchased additional land on the Clinton River. On April 28, 1836, James Miller also purchased property from Richard E. Colt, who resided in Ohio. On February 14, 1837 there is a deed from John Millar (James' father, not his brother John), to James Millar covering additional property in the Clinton River area. This conveyance took place only a few months prior to the father's death, on April 17, 1837.

There are similar transactions with the names used interchangeably, but the final one involving James Miller is recorded on May 30, 1851, Liber W. page 394, in which there is a deed from John Miller and other heirs of James Miller, deceased, to William Miller (brother) whose name appears in the 1875 plat book as the owner of this property on the Clinton River. The deed was signed in Macomb County, Michigan, by members of the family, with the exception of John Miller who was a resident of New York, where his name and that of his wife Laura was added and sworn to by their appearance before J. Wegman, Commissioner of Deeds, Monroe County, New York. So much for the records concerning these names.

Contact with the Macomb Historical Society re-

vealed nothing; however, a check with the Mt. Clemens Library produced two historical publications and also compilations by the Daughters of the American Revolution on cemeteries in the area. The latter document proved to be of invaluable assistance, as there were no other death records kept at that time. The two publications, *The Michigan Pioneer and Historical Collection* and the *History of Macomb County* by Robert Eldridge, both dealt with the involvements of the Millers in Macomb County history.

John Millar Sr. and his wife, the parents of James and John, the gun makers, had settled on the south branch of the Clinton River in 1828, bringing with them all of their children with the exception of James and John who resided in Rochester, New York, working as gunsmiths. At this point the family history unfolded. The gun maker's grandparents were Lord and Lady Dykes Millar of Scotland. Lord and Lady Millar had several children, one of whom was John Millar Sr., who was born in 1761 and later married Mary Hanna who was a maid in his father's castle. On the death of his father, John Sr., having received his share of the estate, moved to the United States, settling in Brighton, New York, now part of Rochester. Besides James and John, the gunsmiths, there were Helen, Jane, Elizabeth, Thomas Jefferson, Mary, Robert, William, and Dykes. After settling in Macomb County in 1828 the family became quite prominent and today the name Millar is highly regarded in the Mt. Clemens area.

As was the custom, an acre of land was set aside for the family cemetery; this plot still exists and is maintained by civic organizations like the Daughters of the American Revolution, who in 1943 compiled the records of those buried there. It is from this book, published by the DAR, that we find that James Miller is interred in this cemetery.

A visit to this burial place revealed the grave and what was left of the monument. All that remained was the lower part inscribed "Died October 10, 1849." The upper part of the stone contains the letters JAM and there is no way of determining the last name as to Millar or Miller but DAR records indicate it was the latter. A careful search of the grounds turned up none of the missing parts of the tombstone. Nearby is the grave of his father, John Millar Sr.

My next contact proved to be most helpful, as I was directed to Dr. Richard Harvey Millar, a retired dentist residing in Mt. Clemens, who is a grand nephew of James and John Miller (Millar). Not only did Dr. Millar have the family genealogy, but he also has the original patent papers and James' personal gun, both of



The Millar private cemetery, located on the outskirts of Mt. Clemens, Michigan, only a short distance from the location of James Millar's sawmill on the banks of the Clinton River.



The remains of the monument to James Millar, or, as the headstone probably read, "James Miller".

which he has kindly loaned me and are presently part of my display. The barrel of this gun is one of two known that carry the address of "J. Millar Rochester." In the case of the patent papers we were, at last, able to determine the salient features claimed by Millar. This patent was issued to James Millar on June 11, 1829; however the patent office copy was destroyed in the fire of 1836. Prior to this time Jim Smith had uncovered an abbreviated report from the *Journal of the Franklin Institute* and Jerry Swinney had located a report in greater detail from the *Cabinet of Natural History and American Sports* published in 1850, but neither of these documents spelled out, other than in general terms, specific features that made this gun patentable.

The patent was issued by Andrew Jackson, President of the United States, was co-signed by Martin Van Buren, Secretary of State and witnessed by W. MacPherson Berrien, Attorney General. By coincidence all three of these people have counties named after them in Michigan.

It would not be proper for me to delve into the mechanical details of these guns as Jim Smith is researching this aspect and hopefully will be able to tie in

the relationship of the Millers and Wm. Billingham. I feel that I would be remiss, however, if I omitted my conclusions regarding the types or model identification of these guns. Although we now know that there are four addresses to be found on the barrels, I believe that these long guns fall into three basic categories: Type 1 consists of the pill-lock ignition system and incorporates the features contained in the patent, including the strap or bridge over the cylinder securing the frame to the barrel and identified by the word "PATENT" on the top. This model also had the nose cap over the fore end of the cylinder. The address on the barrel of this model bears either the name "J. MILLAR ROCHESTER" or "J & J MILLER ROCHESTER." These addresses were usually engraved in script, although one gun of this type has the later J. & J. MILLER ROCHESTER two line stamping. Type 2 omits the fore end cap and the cylinder bridge strap but retains the pill type ignition. Of the guns of this model known, all except one has the stamped address of "J. & J. MILLER" or "J. MILLER ROCHESTER." The exception is one script engraved "J.&J. MILLER ROCHESTER." Type 3 guns are similar to the type 2 except that they have per-



# The United States of America.

TO ALL TO WHOM THESE Letters Patent SHALL COME:

Whereas James Millar, A Citizen of

the United States hath alleged that he has invented a new and useful improvement in the construction of fire arms, viz: Rifles, Muskets, Fowling Pieces, Ordnances &c, in forming a cylindrical Magazine of sufficient dimensions to contain the number of charges required.

which improvement he states has not been known or used before his application, hath made oath that he does verily believe that he is the true inventor or discoverer of the said improvement: hath paid into the Treasury of the United States the sum of thirty dollars, delivered a receipt for the same, and presented a petition to the Secretary of State, signifying a desire of obtaining an exclusive property in the said improvement, and praying that a patent may be granted for that purpose. These are therefore in grant, according to law, to the said James Millar his heirs, administrators or assigns, for the term of fourteen years, from the eleventh day of June one thousand eight hundred and twenty-nine the full and exclusive right and liberty of making, constructing, using and vending to others to be used, the said improvement, a description whereof is given in the words of the said James Millar himself, in the schedule hereto annexed, and is made a part of these presents.

In Testimony whereof, I have caused these Letters to be made Patent, and the Seal of the United States to be hereunto affixed.

GIVEN under my hand, at the City of Washington this seventh day of June in the year of our Lord one thousand eight hundred and twenty-nine and of the independence of the United States of America the fifty third.

Andrew Jackson

BY THE PRESIDENT.

Wm. B. Rives Secretary of State.



City of Washington, To WIT:

I DO HEREBY CERTIFY That the foregoing Letters Patent were delivered to me on the eleventh day of June in the year of our Lord one thousand eight hundred and twenty-nine to be examined; that I have examined the same, and find them conformable to law; and I do hereby return the same to the Secretary of State, within fifteen days from the date aforesaid, to wit: on this eleventh day of June in the year aforesaid.

Witness my hand &c

Wm. M. Patterson, Attorney General of the United States.

Here is a copy of the text of the Millar patent:

THE UNITED STATES OF AMERICA, TO ALL TO WHOM THESE LETTERS PATENT SHALL COME: WHEREAS *James Millar, a Citizen of the United States* hath alleged that he has invented a new and useful improvement in the construction of fire arms, viz: rifles, muskets, fowling pieces, ordinance for forming a cylindrical magazine of sufficient dimensions to contain the number of charges required, which improvement he states has not been known or used before his application hath made oath that he does verily believe that he is the true inventor of discoverer of the said improvement hath paid into the treasury of the United States the sum of thirty dollars, delivered a receipt for the same, and presented a petition to the Secretary of State, signifying a desire of obtaining an exclusive property in the said improvement, and praying that a patent may be granted for that purpose. These are therefore to grant, according to law to the said *James Millar* his heirs, administrators or assigns, for the term of fourteen years from the *eleventh* day of *June*, one thousand eight hundred and *twenty-nine* the full and exclusive right and liberty of making, constructing, using and vending to others to be used, the said improvement; a description whereof is given in the words of the said *James Millar* himself, in the schedule hereto annexed and is made a part of these presents.

In testimony whereof, I have caused these letters to be made, patent, and the Seal of the United States to be hereunto affixed. Given under my hand at the City of Washington, this *eleventh* day of *June* in the year of our Lord one thousand eight hundred and *twenty-nine* and of the independence of the United States of America the *fifty third*. ([Signed] *Andrew Jackson, President; Martin Van Buren, Secretary of State.*)

*City of Washington, TO WIT: I DO HEREBY CERTIFY that the foregoing letters patent were delivered to me on the eleventh day of June* in the year of our Lord one thousand eight hundred and *twenty nine* to be examined; that I have examined the same and find them conformable to law and I do hereby return the same to the Secretary of State, within fifteen days from the date aforesaid, to wit; on this *eleventh* day of *June* in the year aforesaid. (Signed) *W. MacPherson Berrien, Attorney General.*

The schedule referred to in these letters, patent, and making part of the same, containing a description in the words of the said *James Millar* himself of his improvement in the construction of fire arms, viz; rifles, muskets, fowling pieces, ordinances, and, in forming a cylindrical magazine of sufficient dimensions to contain the number of charges required.

The fundamental principle or what may be termed the basis of this machine, and that which constitutes the skeleton and main support of this invention is a circular piece about one half inch thick, with an axle made of one solid piece, on this axle, a cylindrical

magazine is made to revolve and is closely fitted to the face of this circular piece, this circular piece forms a cap to the magazine in the face of the cap there is a recess of sufficient depth to admit a piece of deer skin or sponge which serves to lubricate the joint with oil which is kept close to an air tight joint by a strong nut and screw on the hinder end of the axle. There is an elongation of this axle which passes into the breech and fastened by a screw pin passing through it into the guard, or it may be screwed into the breakoff piece, this breakoff piece extends over the magazine on the top, about a half-inch wide and one-sixteenth of an inch thick and terminates in a crotch and is let into the edge of the cap or flange which projects in form of a fillet beyond the magazine and is fastened by two screws, this piece gives additional strength and stability to the breech. Between the centre and the periphery of this cap or flange, the main barrel is inserted so as to form a line with the top of the magazine and corresponds with the caliber of the magazine in its operation. This operation is adjusted by a spring and catch fixed in the lower edge of the cap and juts into gains cut in the edge of the magazine and is easily relieved by the finger while the revolving chambers turn backward or forward at pleasure. This magazine contains seven distinct chambers of sufficient depth for a full charge, independent of each other. The loading of these may be performed through the main barrel or thru the cap as fancy may dictate. These seven chambers may be loaded and primed and discharged distinctly in twenty seconds. In the arrangement of this gun there is safety and certainty in its operation.

The lock adapted to this kind of fire arm, is of the percussion kind, and where the percussion pin strikes the magazine, the fuse hole is drilled a little obliquely so as to meet the calibre. The priming may be performed by a lock that will prime itself.

The improvements relied on in this machine, consists in the simplicity of its construction, and every way adapted to hunting and for war purposes.

I, the said *James Millar* therefore claim all the above improvements together with the privilege of varying the dimensions and proportions of the improved magazine and fire arm, likewise the materials of which the several parts are composed as applied to hunting, military warfare, or otherwise, either in the capacity of ordnance, musketry, calvary or pocket pistol and as my fancy may from time to time and at all times, dictate at the same time adhering to my principle and not departing from the same.

In testimony that the above is a true specification of my said improvement above described, I have hereunto set my hand, and seal the thirteenth day of April in the year of our Lord, one thousand eight hundred and twenty-nine.

([Signed] *James Millar*)

cussion cap ignition. The main difference is in the cylinder which is not chamfered or beveled at the rear, enabling it to accommodate the percussion nipple, and of course the hammer face is altered to strike the cap. The addresses on the barrel are the same as those on the type 2. There has been some suggestion that the percussion cap guns were conversions from pill-lock: this I do not believe to be true, although about ten years ago I did see a 1st model Miller gun where the cylinder had been modified by grooving and recessing the nipples so that they would clear the top strap. This gun was owned by a resident of Toronto, Canada and I would be interested in knowing where the gun is today.

It is believed that only a handful of 1st model guns were manufactured and of that number, to the best of my knowledge only six exist today as the combination of the black powder and the "piece of deer hide or sponge" in the fore end cap caused the cylinder to bind. To support this theory there is a 1st model revolving rifle in my display that has been converted to a single shot rifle by removing the cylinder.

At one time it was thought that all Miller guns had cylinders with rifling to match those found in the barrels; however, in some instances they do not have this feature and this includes James Miller's personal gun. One additional unexplained discrepancy concerns a mention in the patent in which it states: "The loading of these [cylinders] may be performed through the barrel or the cap as fancy may dictate." All of the first model guns known, with the exception of one, have solid caps over the cylinder fore end which would preclude loading through the cylinder except by disassembly of the gun. However, one of my 1st model guns is fitted with four holes or ports in the fore end cap which would allow loading through the cylinder. There is one other feature of at least three of the 1st model Millers and that is a metal extension on the rammer or cleaning rod that unscrews and may be pulled out to extend the rod about five inches to facilitate its use.

Of James' personal life, little is known except that he never married and that he was born in 1800 and died on October 10, 1849. His sole business activity while in Michigan was lumbering.

Earlier, I mentioned the matter of the "suicide hoax" involving John Miller. This was contained in the following news item in the Rochester Daily Union dated June 13, 1854: "PAINFUL RUMOR—A report has been carried around the city for a day or two past, that our well known townsman John Miller, formerly a gunsmith, had perished in Lake Michigan. We have endeavored to ascertain something in regard to the

matter, more than is known by the newspaper paragraph that gave rise to the report, but have been unable to do so; we doubt the truth of this report. Mr. Miller, we understand, left this city in March last, to engage in fisheries in Western Lakes, at what precise points we cannot state. A short time since, a paragraph appeared in a western paper, stating that a boat had been found adrift on Lake Michigan, on which was written a statement by J. Miller, to the effect that he left \$1,200 in the boat, which he desired to have transmitted to his wife. There is something about the matter which leads us to suspect that the story is a hoax, and we shall not give credence to it until it is better authenticated. We understand that Mrs. Miller is at present residing in Lima, Liv. Co. and we do not hear that any anxiety exists in her mind as to the whereabouts of Mr. Miller, and for aught we know, she may have positive knowledge of his whereabouts. We heard the rumor of his death a day or two since, but refrained from giving it publicity until it became the topic of general remarks among his acquaintances." From the *Rochester Daily Union*, June 14, 1854: "We are informed that the friends of John Miller have intelligence that he was in Battle Creek, Michigan, last week. If this be so, of course, the rumor of his death by drowning in Lake Michigan which we referred to yesterday, is entirely groundless, as we predicted it would prove to be."

During this period of time there was a daily newspaper in Battle Creek, *The Battle Creek Journal*. Careful scrutiny of the microfilm copies turned up no information whatsoever, nor did the records in Marshall, Michigan, the county seat, or those of Allegan County which is the adjoining county and is located on Lake Michigan. Oddly enough I have a 1st model Miller rifle that I purchased from a man in Battle Creek about 12 years ago. He claimed that this gun had been owned by John Miller. Although I have made extensive inquiries through his relatives, I have never been able to document this.

My investigation in Michigan of the activities of John Miller failed to disclose any evidence that he resided for more than a year in this area. Jim Smith in his article states that John started in the gun business in 1828 as an apprentice to Joseph Medbury and served with William Billinghamst in Medbury's shop in Rochester. James Miller, according to the 1834 Rochester directory, was in business with John as gunsmith and had Billinghamst as an employee. James apparently left the business in 1835, moving to Michigan, and John continued operating his shop until 1852 or 53, at which time he sold the business to Antobres E. Edwards, a

former employee of the Millers. In the 1853-54 directory he was listed as a fish dealer in Rochester and then apparently for a short time was in Michigan pursuing this business. According to Jerry Swinney, John and his wife, after his return to the Rochester area, took up farming. He is buried in a cemetery in the Town (ship) of Greece in Monroe County, New York.

There are still many unanswered questions, such as: are these guns really Miller marked Billinghamurst guns as described in Flayderman's *Guide to American Firearms* or are they truly Miller-designed guns and possibly made by Billinghamurst as an employee in the Miller shop. My personal belief is that the latter is true in the case of the 1st model rifles and that when these proved impractical they were re-designed, probably by Wm. Billinghamurst while an employee in the Miller shop, and because these later guns were never patented, he continued to make them in his own shop, using his address on the barrels. It would seem proper therefore that the 1st model guns be referred to as the James Millar Patent guns and the 2nd and 3rd models be known as the J & J Miller revolving rifles. Jim Smith's research will cast more light on this subject, and I am also quite sure that Jerry Swinney will have more information on William Billinghamurst.

There is one fact that I alluded to in my opening remarks and that refers to the integrity of this concept. On the surface the idea of a percussion multi-firing cylinder gun appeared to be the solution to the desire for multi-shot rifles, however in practice it was doomed to failure and actually was one of the most dangerously designed guns made. Some people feel that the demise of the idea was caused by the introduction of the lever action cartridge rifle and that perhaps if the revolving cylinder long gun had been designed for use with the metallic cartridge it might have been successful. The problems were: the ever-present danger of chain firing; the failure of positive alignment, and spacing between the cylinder and the barrel causing the shearing of lead, and this, coupled with the danger of blindness due to the relation of the percussion cap or pill to the eyes, all resulted in jeopardy to the shooter. Let me document this with an experience that took place last fall with a friend of mine who borrowed one of my Billinghamurst rifles and, being an excellent gunsmith, copied it to make a black powder deer rifle. He did a beautiful job and had fired it approximately 25 times when he loaded all the charges in the cylinder. The first shot chain fired placing two balls plus wadding, etc., in his left hand that he was using as a support. He had followed all precautions in loading and to this day the reason for the chain firing is

not known. Fortunately after months of surgical rebuilding the left hand will have limited mobility. As the owner of Porter and Cochran turret rifles I would rate these as even more dangerous, not only to the shooter but, in the case of the horizontal Cochran cylinder, to people standing nearby.

In closing, I want to extend my apologies to Jerry Swinney and Jim Smith, for having trespassed on their turf and also to thank them for their assistance and guidance in my efforts. I am also deeply indebted to Dr. Richard Harvey Millar for loaning me the Millar gun and patent papers and also in helping me trace the Millar genealogy. I also want to thank Henry Stewart, Frank Sellers and Mark Aziz, for their helpful cooperation.

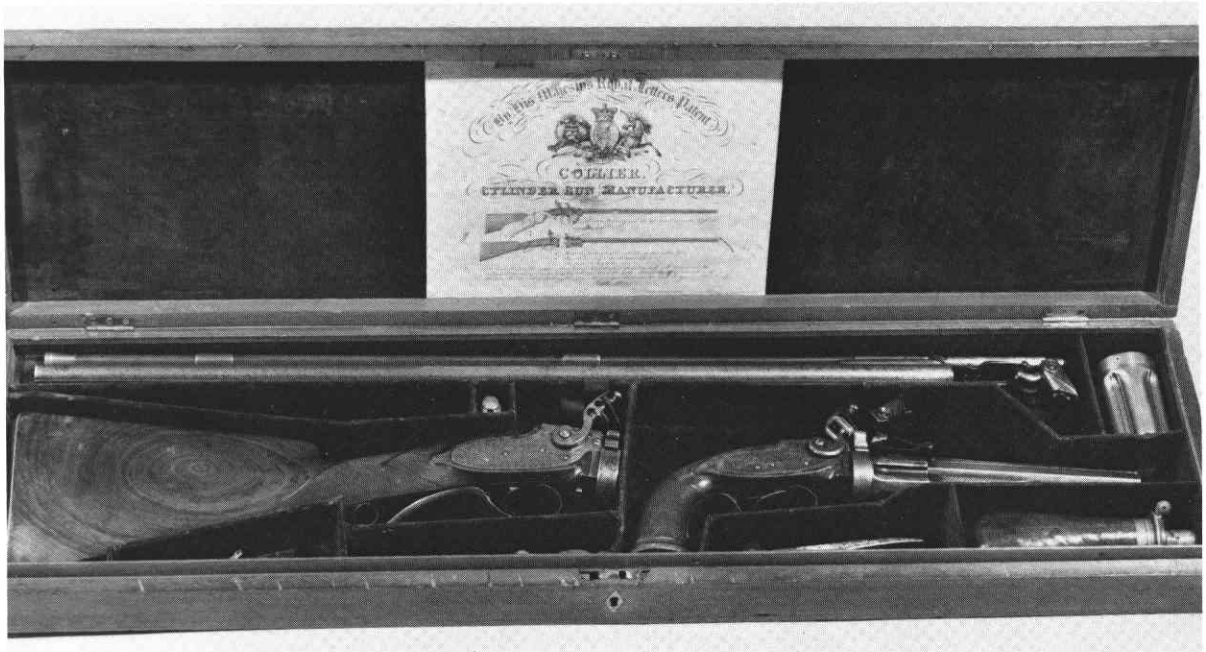
As a final gesture I would like to dedicate this talk to my good friend, the late Edward Eich; he is missed by all of us.

**SOURCES**

1. The *Canadian Journal of Arms Collecting*, Vol. 9, No. 3
2. The *Gun Collector*, Nos. 38, 40, and 41
3. Family records compiled by Laura Millar (deceased), daughter of Edward Millar of Mt. Clemens, Michigan
4. The *Michigan Pioneer and Historical Collection*, Vol. 5, 1882, page 463
5. *History of Macomb County* by Robert Eldridge, page 608
6. *Cemetery Records of Macomb County Michigan*, 1943, by the Daughters of the American Revolution
7. Register of Deeds Records, Macomb County Courthouse, Mt. Clemens, Michigan
8. Mt. Clemens, Michigan, Public Library
9. *American Society of Arms Collectors*, Bulletin #3, Spring 1961

*Photographs of Mr. Bates' Miller/ar and related guns follow.*





Elisha Collier is generally credited with being the first producer of revolving cylinder guns; his guns were manufactured in England. Author's collection



The forerunner of Millar concept is this full stock Kentucky type rifle made by Joseph Medbury, for whom the Millers worked as apprentices. Note that the Guthrie pill-lock ignition system is used on this gun. Author's collection



James Millar's personal gun disassembled to illustrate the bridge or top strap over the cylinder and also the cylinder fore end cap, two of the main features of his patent. Richard Harvey Millar





A comparison of the cylinder fore end cap on the 1st model guns. With the exception of the rifle on the left, all James Millar patent cylinder guns have a solid fore end cylinder cap. The gun on the left has four ports of the proper caliber which could be gas ports or could be used to facilitate loading of the cylinder.

Author's collection



A comparison of the unusual rammer or cleaning rod found on at least three of the 1st model guns. To extend the rammer, the fore end was unscrewed, pulled out and further unscrewed to secure it in the extended position.

Author's collection

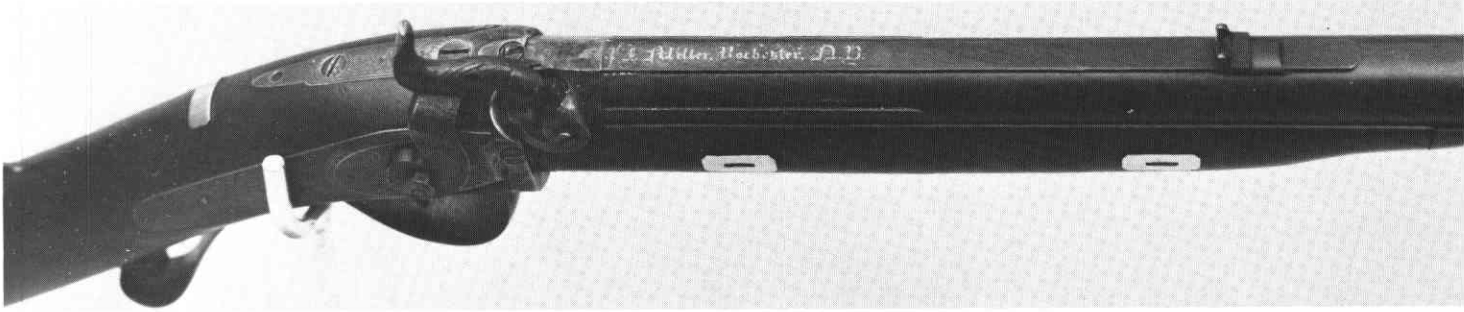


The three basic types of Miller guns: the bottom gun represents the James Millar patent and is type 1. The middle gun is the type 2 model with the pill-lock ignition system but lacking the features of James Millar's patent. The top gun is type 3 and is similar to type 2 except that it uses percussion caps.

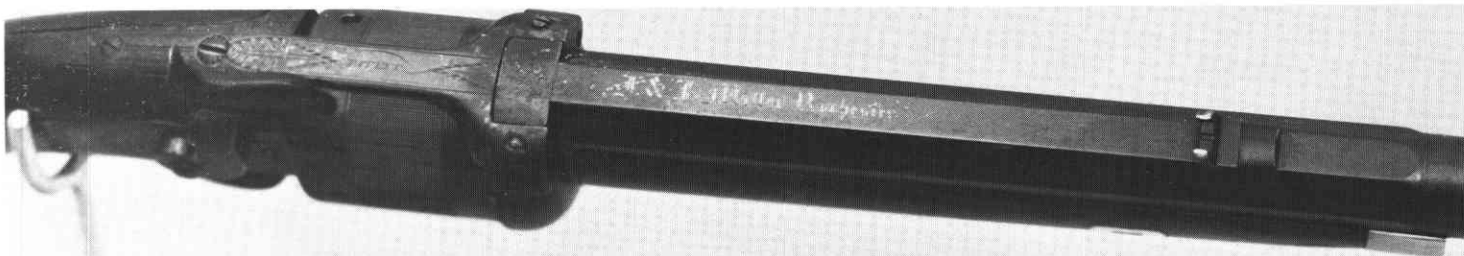
Author's collection



One of the few fullstock Miller revolving cylinder rifles. This gun is marked "J. & J. Miller Rochester" and has the percussion cap ignition system. Author's collection



This gun was originally a 1st model cylinder rifle but has been converted to a single shot by the removal of the cylinder. Author's collection



Two addresses generally found on the 1st model guns: the top gun is engraved "J. & J. Miller Rochester", the lower gun is marked "J. Millar Rochester", both are marked "Patent" over the cylinder.



This picture shows the address, "J. Millar Rochester" on the barrel of James Millar's personal 1st model revolving cylinder rifle. Richard Harvey Millar