

HENRY M. STEWART, JR.
REVOLVING RIFLES

The good part about being the last speaker is that you can write your speech while the others are talking, which is just about what I have done. I think since this is being taped and will go out to the entire membership I would like to start at the beginning and talk a bit about the early multi-shots.

As we know, there are in various collections the multi-barrel Pike type of hand gun. These are credited back as far as 1346. Actually, they probably are 40 or 50 years later than that. There is one shown in Stone's Glossary of Armor which is attributed to Cambodia as I recall. However, man's desire for multi-shot arms stems almost from the beginning of handguns. The one that I exhibited for several years at the National Rifle Association Annual Meeting display I believe to be genuine. It has all the muzzle characteristics of the early type of weapon, in other words, the weight of metal was incorrectly placed at the muzzle instead of at the breech. The breech plugs were merely hammered-in pieces of rod as there were no screw threads or anything like that in that period. Mine is a three barrel affair, well aged and not artificially, as a word of caution, but by the years. The pike part of it has disintegrated.

Probably Tom Hoopes doesn't remember but about 1949 I had the wonderful opportunity of visiting the St. Louis Museum of Art and going down into the lower rooms and getting a lot of information on the early lever type of multi-shots. History until that time had led me to believe that Cookson was the originator of that type of weapon. That is of course the gravity-loading gun where you tip the muzzle down, carrying the spigot-breech through an arc which permits the entry of the ball into the barrel and then at the next motion thru the arc permits the powder to enter into the barrel. Returning it in many cases, primes the lock, closes the frizzen and cocks the hammer. However, through the great research of Tom Hoopes I was able to get into the Lorenzini story of this type of even earlier vintage. I am pointing this out because that type of gun represented another step in the multi-shot arms.

There are of course multi-shot rifles of the matchlock period.

For the wheellock, I believe Dr. Strassman owns a very beautiful, self spanning, Italian wheellock pistol that was on exhibit at one of the earlier meetings.

You will also find the revolving gun in the snaphaunce, migulet, flint and the percussion. All through the history of firearms you will find man's desire for the multi-shot and contemporary with the long guns you will find in pistols the Lorenzini, the Cookson, the Glass of London, then on up to the Mortimers where the last of the Cookson type as we call it, existed. As far as early revolving arms are concerned you will find them in pistol form in all parts of the world. Even a machine gun was patented by James Puckle in England as Patent #418 of May 15, 1717.

I have been more interested in the English fabrication. I have a revolver by Wilson of Minories, the Polinson of London as well as Collier's guns in both the revolver and the rifle. Recently the Bivens Collection was placed on sale and contained a Powell of Dublin.

In the Smithsonian Institution through the studies and research of Berk Lewis was

discovered the Artemus Wheeler arms. Artemus Wheeler, a New Englander, on June 10th 1818 patented a multi-shot pepperbox type of long arms. Collier, a Boston gentleman who went to England and developed the Collier Pistol and Rifle. This was under English patent #4135 issued Nov. 24, 1818. At the same time an associate of Artemus Wheeler named Cornelius Coolidge obtained a similar patent during 1819 in France.

We next come into the transition period with a tube-lock revolver by LePage and I once owned a doubtful Forsythe seven barrel type. At least one cased pair of the LePage tube-lock revolvers were made that look very like the Collier revolver. The revolver was quite a common attempt at multi-fire and I don't consider it a great rarity of the very early days.

Now briefly in the early American picture after Wheeler we come to the Miller, the Daniels, Faries, Colburn, Strong, Edwards, Cochran, Colt, Nutting, Whittier, Jaquith, Nichols & Childs, Bennett, North & Savage of 1844, Stanton, Porter and the legion of inventors that followed. Those guns all have a place in the revolving arms story and after Nutting many attempts were made to get around the Colt's Patent.

Of interest also in the "Flat Bar" or Harmonica multi-shot pistol. It has been aptly said that the revolver was mere a development of the flat bar when someone bent it into a circle.

I had always heard that Cochran's patent followed Colt's patent. Among other things that I collect are patent models and I was fortunate enough to purchase an original patent model with Cochran's tag on it of October 22, 1834. It turned out that that particular piece was not the Cochran model but it led me on and I obtained the patent papers and found that Cochran's patent actually had preceded Colt in patenting a revolving arm. The piece that carried the Cochran tag turned out to be a Samuel Faries of October 10, 1829 patent model. The tags had gotten switched after the Patent Office fire of 1837. I was more fortunate than I had first thought because this put me back on the trail of Faries who immediately followed Miller and originated the Turret Type of cylinder.

On exhibit here in Miami is the Nichols & Childs which is another attempt to get around Colt's patent. The North & Savage is also on exhibit and it utilized a wedge in back of the cylinder which when brought down revolved the cylinder. Cochran as you know was a revolving horizontal turret. The Daniels which is often confused with the Cochran even by VanRensalaer is also a revolving turret except that there is a jutting nose on each chamber that goes into the barrel and forms a positive seal. Bennett had a sort of sprocket revolving set of chambers that worked on a horizontal plane similar to the Cochran but a series of individual chambers.

The interesting thing about all of these is that you find the Daniels, the Bennett and the Cochran were all of the manufacture of C.B. Allen. Allen made them of course for the inventors. He is also known in the Elgin Cutlass picture. Apparently Allen was a great man for these people to turn to with their ideas to get them developed. Allen also developed the Fisher & Chamberlain, a Harmonica Type multi-shot.

The period of the percussion system was comparatively short for the revolving rifle. I usually leave it wide open from 1825 to 1878. The last recorded shipment of Colt

revolving guns were the carbines that were shipped to England in 1878. From the studies I have made I have reached the conclusion that the last of the Colt revolving rifles were made in 1864 at the time of the fire. They never resumed production of rifles and those that were left over from the fire, since they were very poor sellers, were in storage and eventually were sold to England with serials in the 11,000 to 12,000 range.

So while we do have only a very few years of arms manufacture in this percussion period the preceding names are but a few of a multitude of names like Remington, Spellier, Allen & Wheelock and many other makers of revolving long arms. It is an interesting study and as each of the preceding speakers have said, it is something that has had only the surface scratched up to now.

I would like to note in passing that when I first started specifically collecting revolving rifles which was about 1929 that difficulty in communication between collectors, dealers and anybody that had a gun was so great that I drove 10,000 miles literally before I got my first revolving rifle. On one wild goose chase I drove from Virginia to upper New York State and sat on a milkman's doorstep waiting for him to come home in an attempt to get a Colt revolving rifle from him without success. Today it is comparatively simple because of the large gun shows. Now you can pick up a revolving rifle at about every show but in the early days believe me the first hundred were the hardest, we didn't have the contacts, the dealer lists nor the big shows. Each and every rifle that you did get you studied it very, very carefully and it was truly a treasure to cherish.

Before examining the few models I brought for exhibit may I say that in my general collection there are about one hundred revolving long arms plus patent models and no two are identical. There are nine varieties of the Paterson Colt long guns and Colts of Hartford manufacturer in .36, .40, .44, .50, .56, .58 and .64 caliber rifles plus the .60 and the .75 caliber shotguns. All interested revolving long gun collectors working together could do a very efficient and rewarding job of rounding out this story. For instance in Jim Smith's story he can see in my collection a pure Billinghamurst in .44 caliber, a Billinghamurst with barrel marked underneath, by apprentice W.H. Smith, in .36 caliber and a complete W.H. Smith model in .44 caliber showing that the apprentice actually improved on the master. Going beyond this is an A.W. Spies, New York model using the Mills latch but a center fire in-line hammer with nipples built in the back of the cylinder.

Contributing to Mark's Roper picture there are examples of the extremely rare Roper Cloverleaf types in shotgun and rifle, hand revolved and separate trigger revolved. Also the scarce accessories are available.

To contribute to Frank Russell's Warner story are the Collier type with the US eagle marking, both brass and iron frame side-hammer rifles, pill nipple model etc, etc.

What we require is a good photographic set-up and a talented writer to take our random thoughts and compile a really worthwhile story. Jim Serven worked with us to develop the Colt story, is there anyone who wishes to tackle the more involved phase?

As for a discussion of the three models I brought to the meeting, realizing that this may be reprinted by that man of energy Harry Knode I will try to present them like the TV sports broadcaster who has just lost his picture. Since Mark Aziz was unable

to bring the models that I would have like to bring to assist the other speakers I chose three widely variant types for exhibit.

The first model is the Mershon and Hollingworth revolving rifle. This item differs from other revolving rifles in that it represents an early attempt at automatic firing. There is a coil spring chamber behind the cylinder and the shooter compressed the energy in the spring by means of a cranking lever that folds down and is concealed in the top of the small of the stock when it has served it's purpose. This lever connected to a ratchet is turned up and cranked in an arc above and perpendicular to the line of the bore. With spring compressed and cylinder loaded for six shots the user aimed the gun, pulled the trigger and from then on by a series of levers, cams and disconnectors there was an automatic discharge of six shots. The Garand of it's day gave you a real "wham, zam, thank you ma'am" action. Far in advance of it's day it was invention of Ralph S. Mershon and John Hollingsworth of Zanesville, Ohio. Mershon later moved to Philadelphia. These men devoted their efforts to developing power spring drives to revolve a cylinder. Their first two patents were numbers 12470 and 12471 issued February 27, 1855 and this gun is based on those patents. A later patent by them was number 39825 of September 8, 1863 after Mershon had moved to Philadelphia and this one was also on a power drive but developed for an around the 1860 Colt Army Model. You have heard of multi-discharge and it's dangers to the fingers out in front . . . these lads tied this up in good style as you will observe, the forestock is actually a tube and the shooter still had his fingers. Clever thinking throughout and an unusual revolving long gun.

The second model exhibited is the rare Roper development that I brought to assist Mark Aziz in his Roper talk. This is the four shot, so called, Cloverleaf Model. The cylinder is a complete exposed conventional type unlike the enclosed revolving cartridge carrier usually encountered. In my collection there are two variants of the Cloverleaf, a shotgun with a hand revolved cylinder and this rifle model that is convertible to a shotgun that has a separate trigger spring-actuated revolving mechanism. Many parts of these guns will interchange with the Amherst Ropers and have the threaded muzzle for the Roper choke. This does not prove them of Amherst manufacture but my research developed a third similar type that was sold from the Walpole Galleries Catalogue #321 from the Fred Hines collection of April 11, 1924. To quote this item. . . . "Roper Repeating Rifle made by and marked Roper Repeating Rifle Company, Amherst, Mass., 4 shots, fluted cylinder that throws to side for loading, two triggers, one revolves, other fires." So here we have an official mention of Repeating Rifle Company and all of the pieces used the Roper front loading shell. There is one important difference in all these three from the common type Roper. The garden variety inserts the full length of the cartridge into the barrel and fires it, these models insert only the nose of the cartridge, about 1/4", into the barrel, sealing effectively with minimum camming and extracting problems by this short travel. The model here on exhibit is a combination rifle and shotgun with a rifled liner barrel inserted into the shotgun barrel and screwed into place utilizing the variable choke threads at the muzzle. It is hinged at the front of the frame below the cylinder like Webley's early patent but released from the top strap like Smith's rubber cartridge carbine. This feature facilitated loading and interchange of the shotgun and rifle cylinders. In my opinion these three known examples were made at the end of the Amherst period. When Roper was ready to sell to Spencer and Billings he had these models developed, you will note that none are serial numbered. At Hartford they just dropped this development and went back to the conventional type of which over a thousand had been made and sold at Amherst.

These thoughts and research are offered as links to assist Mark in tying together his story. The fourth item not mentioned by Mark is the hand revolver that our member Ray Riling brought to light and was good enough to have pictured. This is also an important link and from detailed discussion with Ray we feel rather certain that the hand revolver cartridge was a shortened version of the rifle cartridge. This is another very important clue to assist Mark thanks to Ray Riling.

The third and final exhibited revolving rifle is one that I sought after for over fifteen years. In the Colt exhibit is an incomplete rifle of this type not readily identified because of the missing parts. This gun is pictured as the second item from top on page 337 of Edward's book "The story of the Colt revolver". Thru the kindness of our member Keith Neal plus blood, sweat, tears and some extremely rare guns swapped, I own the fine, complete, presentation engraved model before us. It is also pictured in Edward's book, page 291. Incidentally I also own the "Horace Lord" early model attributed to W. G. C. Kimball on the same page as well as one of the rare experimental types pictured third from top in the page 397 picture. More on these at some future time but let us examine this model at hand.

This Colt I believe to be the predecessor of the Root 1855. It has full octagon barrel screwed into a solid frame that differs from the conventional as it has a lock mechanism similar to the dragoon with bolts thru frame. The cylinder pin does not go thru the cylinder and into the frame as on the '55. Instead it enters the cylinder from the rear and extends only about 90% in with the cylinder blanked at the front. I am currently preparing a study on the Colt revolving gear models that ties in with this cylinder pin. This gun could be from the Crystal Palace Exhibit at London, England as the engraving not only includes the shield of the United States but also a tiger hunt etc. I will dwell no further on this item now but hope some day to prepare a real study on these experimentals.

In closing, as I said at the opening of my remarks, that this talk is more or less off the cuff based on what the more serious research of the preceding speakers have presented to you. In that vein if you will permit me to recall from memory, on the Miller types there are also Pill Lock revolvers (hand guns) by Billinghamurst. In my gun room there are several framed portraits of the Dean of early collectors, Harry B. Harmer. One shows him holding the famous Constable dagger, revolving pistol now in the Harding collection of Chicago. A more pertinent picture is of Harry examining a Billinghamurst pill revolver with a saw handle grip. With regard to Miller and Billinghamurst I would agree with Jim Smith that Billinghamurst did the work and that the California models in my opinion were probably made later by W. H. Smith considering the quality of the workmanship. Shell was an early independent maker licensed by Miller which accounts for the "Patent" wording usually accompanying the Shell marking. Mark asked about the Guthrie patent of 1834 on pills. Many items are developed without patenting them, then someone comes along and grabs a patent. A recent example of this is that the Southern slaves knew a piece of cotton hung in the doorway kept out flies, an old and unexplained fact, but recently packaged and I believe patented. Along the same lines, in my studies of the development of the centerfire cartridge at Springfield and Frankford I find test type after test type that was later patented by an outsider. Berdan for instance was accused of doing just this in Ordnance Memo 14 on Chabot on-trap-door breech loaders etc, etc. In fact I started my cartridge study back in May of 1944 because of a visit by a friend Elmer Keith and a statement that his idea had been patented for front ignition and variable powder load by Fitch, Patent #58,800 of October 16, 1866, developed in Corliss front ignition.

In closing may I say that the more we learn the more we realize how little we know. It is the contributions like Jim Smith, Frank Russell and Mark Aziz have made that can make all of us humble in this realization but lead to new levels of knowledge. I thank you for the opportunity of chatting with you again.