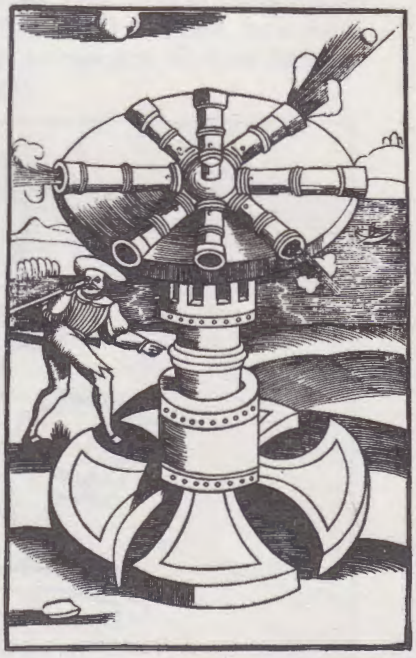
The History of Firearms



Too often, those who strive to turn the wheel of progress are straining counterclockwise. The results, while often resounding, produce little more than quickly dissipating smoke.

In the firearms field, direction is most important. And while the chances are that our best efforts will be less ingenius than those of Mauser or Henry, the chances are, also, that our progress and productivity will be far greater for knowing and understanding what they have done.

As far as guns are concerned, our brief history can't tell you the whole story. Nobody can. Rather than fulfill, the words and pictures that follow will be more apt to whet – and sharpen – your interest. And, realizing that one picture is worth a thousand words, we have illustrated THE HISTORY OF FIREARMS with care. You will find many of the pictures of real value for collecting and identifying old guns and actions.

Included here is Part 1, "It Started With Greek Fire, Black Magic, and Mystic Potions . . ."

Part 2 – "The Golden Age of Firearms" and

Part 3 – "War-Born Offspring and Sporting Descendants"

. . . will be sent to you as you progress with your Gun Pro Course.

– The Editors
North American School of Firearms

HISTORY OF FIREARMS – PART 1

IT STARTED WITH GREEK FIRE, BLACK MAGIC, AND MYSTIC POTIONS . . .

WHO FIRED THE FIRST SHOT?

Apparently, nobody was listening. And whoever fired the first shot didn't tell the right people. At least nobody has yet passed the news down the line. The fact is, the absolute origin of guns has been swallowed by the deep, dark shadows of antiquity. It seems an established fact, however, that guns were developed long after the advent of their propellant force, the first forms of gunpowder.

THE ORIGIN AND DEVELOPMENT OF GUNPOWDER

The man, or even the nation, responsible for the discovery of gunpowder has never been definitely proved. The Chinese are credited most often with having *discovered* gunpowder. But even this is the subject of controversy. The basis for the credit is a 1776 publication by the British East India Company which was a translation from the Sanskrit Gentoo Code by Halhed.

Halhed's translation is open to serious questioning. He refers to gunpowder being used in weapons of war. Halhed was supposed to have been a contemporary of Moses, but war weapons are traceable only to about the 13th century. These weapons were obviously familiar to the translator of the Gentoo Code, and therefore may have been added by him to the translation. While this reference to war weapons does not make the entire translation worthless, it does affect its credibility.

Some authorities believe that Archimedes was possibly familiar with gunpowder. To prove this they point to extractions from Plutarch's "Life of Marcullus." In Virgil's "The Aeneid" there is a passage in which Salmoneous attempts to "make thunder." This was quite possibly done by a concoction similar to blackpowder.

Undoubtedly, extremely inflammable items such as "Greek Fire" and burning pitch were used in warfare. Most of these, however, were propelled by mechanical devices such as catapults and slings.

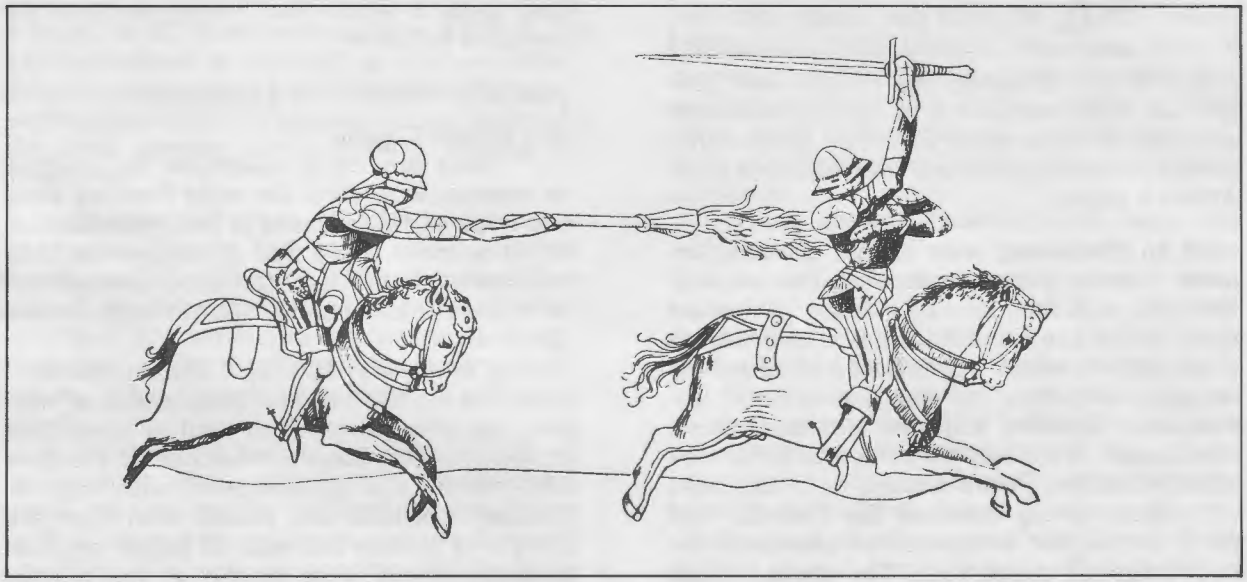


FIGURE 1 — More feared than fierce, gunpowder was originally best used to frighten the enemy with its loud, explosive noise and the resultant burst of fire.

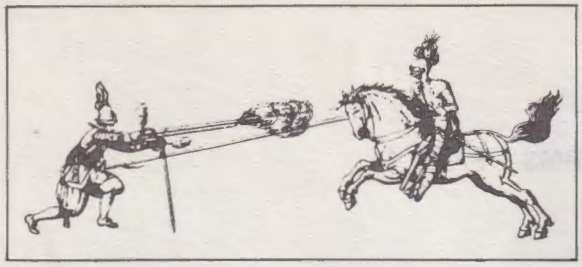


FIGURE 2 — Explosives were first propelled by use of catapults or slings.

Roger Bacon Records Blackpowder Formula (About 1250 A.D.)

Probably the most famous 13th-century manuscript which refers to gunpowder is the letter written by philosopher Roger Bacon to William of Auvergne, Bishop of Paris, in defense of charges that Bacon was practicing witchcraft. His reference to gunpowder leads us to believe that such a substance was apparently well known in his time.

His letter makes absolutely no reference to the use of gunpowder as a propellant force. Instead, it suggests than an enemy might be put to flight by an explosion or by blowing up bodies. This leads us to believe that Bacon's use of gunpowder was either for grenades or mining and not for the purpose of igniting firearms.

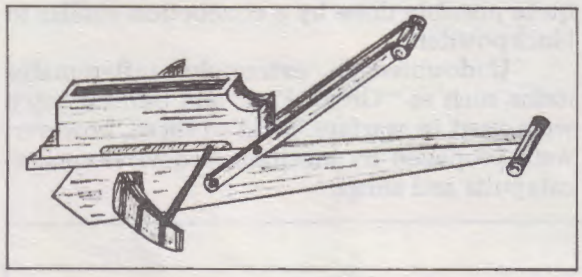


FIGURE 3 — Although the Chinese had gunpowder, they continued to use the crossbow and bolt as their chief defensive weapon for several centuries. The one illustrated is from Archer's Digest.

An interesting note is that Bacon's formula — seven parts of saltpeter, five parts of charcoal, and five parts of sulphur — was for many years the standard for blackpowder. It is not known where Roger Bacon obtained his formula, but since he was a monk and undoubtedly familiar with the Marcus Graecus manuscript, it is likely that this was his source of information. Bacon denied, or at least did not claim, having invented the formula, but his is the earliest authenticated source of the knowledge of gunpowder. He wrote, "Thus we may imitate thunder and lightning, for sulfur niter and charcoal, which by themselves produce no sensible effect, explode with great noise when closely confined and set on fire." This statement and the accompanying formula leave no doubt that his subject was gunpowder, and this is our earliest record-authenticated instance of it.

Gunpowder as a Propellant — About 1313 A.D.

Gunpowder was most probably not known before the 13th century. If it had been known, it surely would have been used in the first Crusade.

In "The Alexiad," the biography of the Byzantine emperor Alexius I, written by his daughter early in the 12th century, no mention of gunpowder appears. However, the formula for Greek Fire and other combustibles are given.

The first writings which are universally accepted as being authentic are also somewhat suspect. These are the records of the monk Marcus Graecus, whose manuscript was originally written in Greek and has been traced to about 850 A.D. The portions of the manuscript which deal with gunpowder and other combustibles were written in Latin and are accepted by most authorities as originating no earlier than 1250 A.D. The Latin portion of this manuscript has a specific formula for "Ignis Bolans," which is believed to be the earliest written formula for gunpowder. There are many translations housed throughout Europe which all seem to verify this. In fact, there are over 30 formulas pertaining to gunpowder. Also, rockets are mentioned as a weapon of warfare. Rockets did not find great acceptance as airborne weapons until World War II, although the French and British used them in World War I to shoot down observation balloons.

THE EVOLUTION OF FIREARMS

The Roman Candle

There are many references to firearms, or cannons as most of the early firearms were, but none of these claims is really substantiated. It is most likely that firearms were a development of the flame-throwing tube referred to in the Alexiad manuscript of the Byzantine Empire.

In the early 1200's, "Roman candles" were known and used as instruments of warfare, but were most often used as incendiary projectors. They usually consisted of a hollow tube which was strengthened with wire or shrunken rawhide and loaded with alternate charges of powder and balls of tallow wrapped in cloth. These were ignited at the muzzle and, as the fire worked down the tube, it would ignite the powder and project the ball.

There is a reference in Chinese writings of the mid-1200's of such Roman candles being used in China.

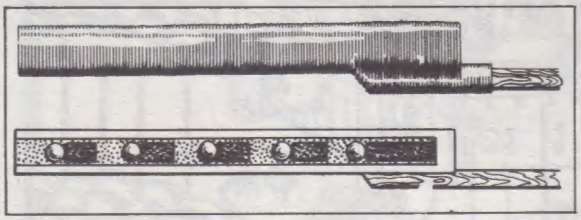


FIGURE 4 — Contemporary drawing, based on a 13th-century Saracen manuscript, shows the construction of a "Roman candle."

The Cannon (About 1350 A.D.)

While we do not know exactly who developed firearms or when, it is authenticated by Walter de Millimete that Edward III of England used cannons in his various wars against the Scots. Millimete's manuscript, written in 1326 A.D., refers to these cannons as "pot de fer" (pot of fire). There are references to such a cannon being used in 1313 and 1324, but the illustrated manuscript of Millimete is the first reference that we have of the cannon's actual use depicted in drawings.

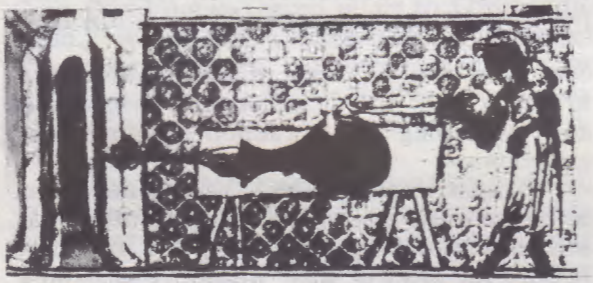


FIGURE 5 — The oldest authenticated illustration of gunpowder used to hurl projectiles is from de Millimete manuscripts, 1326 A.D. The cannoneer is depicted igniting a bottle-shaped cannon with a slow match. The projectile appears to be a barbed bolt, or "garrot," the kind usually hurled from a ballista or crossbow.

Another reference to the cannon as a weapon of war in this same time period is found in "The Metrical Life of Robert the Bruce" by John Barbour. There is also reference that Edward III used a cannon at Crecy. However, while mentioned in many manuscripts, it has never been completely authenticated.

We have no way of knowing which of the powder arms came first — the handgun (hand cannon) or the artillery cannon. Since both of these were similar in construction and operation, it is entirely possible that their developments occurred at about the same time. Both were ignited with a slow match.

Written Records Tracing Firearms Development are Sketchy

Difficulty in verifying much of the information pertaining to these early powder firearms is due to the lack of recorded knowledge. Practically all records came to us through the writings of various religious orders or groups. In fact, it was more or less a labor of love for those individuals within religious orders since they were probably the only ones of the era who had the ability to read or write. Most of these people were not trained observers or military men and consequently their explanations of the firearms of the day are quite incomplete.

Another source of confusion regarding firearms of the early 14th century was the difference in languages. Some of the terminology developed for the new art of warfare retained the names of the earlier projectiles which were used in ballistas or crossbows. The new art of warfare brought about new words, some of which came to us through the years pretty much in their original form. The French used the term "quenon" which has come down to us as "cannon." The Italian word "bombarde" was still in use through the middle of the 19th century and referred to the short-barreled, mortar-like weapons used in naval warfare. Of course, the verb form of the same word is still with us.

Unfortunately, we will have to settle for the words in the written record as the firearms of those days are no longer with us. We are dependent upon some of the art forms of the period which still remain to tell us what these early guns looked like. Some of these art forms are tapestries, paintings, and frescoes (wall paintings). There is written record of one gun which was traceable to the middle 1800's, at which time it was stolen from a monastery of St. Orsola. Since its theft, the gun has not been seen by the public, and has either been lost, destroyed, is unrecognized, or is guarded zealously in someone's private collection.

These earliest firearms were basic and rudimentary. They were essentially a tube with a touch hole and, according to the drawings of the period, had long handles attached to the back end of the tube. Heavier guns were attached to carts or sawhorse-type cradles. They were made from almost any metal of the period, including brass, bronze, and wrought iron. They were loaded with black-powder and, since paper and cloth were fairly valuable at the time, the wadding usually consisted of soft wood on top of which were loaded balls of iron, brass, or more often stones or bolts which were developed for crossbow "quarrels."

FIGURE 6 — This drawing, found in old German records, shows the gun and sword undoubtedly being used for protection.

FIGURE 8 — Cannonlocks in military use, from the Italian frescoes by Neri, 1343 A.D.

Apparently, but not surprisingly, Italy led the way in the development of firearms. At that time, Italy was the leader of science and education. Consequently, weapons were developed to their highest extent in that country. And, since Italians were well educated, the development of their weapons is a matter of record to a higher degree than in other European countries.

Probably the most interesting and informative records of Italian firearms are the frescoes, the most famous of which were done in Sienna by Paolo del Maestro Neri. These frescoes show various forms of warfare and siege in which both the defenders and their assailants are using hand cannon firearms and crossbows.

English records which have come down to us are most interesting if for no other reason than that they show the point of manufacture for most of their weaponry as an area which is still a center of arms manufacture — Liege, Belgium. Liege is the home of firearms known throughout the world as Fabrique Nationale and is the manufacturing headquarters of the famous Browning firearms.

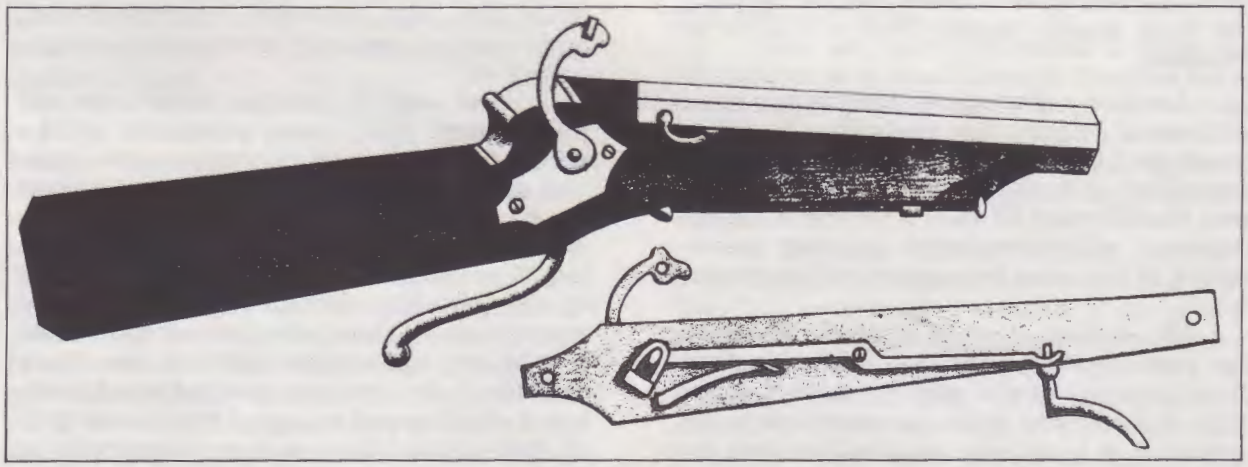


FIGURE 7 — Early firearms were extremely simple. This is one of the earliest German matchlock designs.

FIGURE 9 — Drawing from an English manuscript dated 1469 shows cannonlock as a weapon.

One English record refers to a "ribauldequin," which was a multi-discharge weapon consisting of several barrels arranged together and designed to be fired either simultaneously or in rapid succession. So much for the repeaters of the day.

The German love for attention to detail is evidenced in their most important written record of the 14th century. This is the "Codex Germanicus 600," which is still in existence. Corroborative articles such as tapestries, frescoes, and manuscripts have disappeared, mainly due to the destruction and looting of two world wars.

FIGURE 10 — The Codex Germanicus 600, dated 1390, translates "Directions for Preparations of Gunpowder. How to Load Guns and Discharge Them."

Of course, the item itself is the most conclusive proof of its existence, and there remains today what is referred to as the Tannenberger Busche, a "handbuschen" (handgun). This cannonlock was excavated in 1849 at the stronghold of a notorious robber baron's castle, Vesta Tannenberg. The castle was destroyed in 1399 and every effort was made to totally obliterate it. "Codex 719" and "Codex 734," both at one time observable at Nuremberg and Munich respectively, offer the researcher interesting advancements of firearms manufacture, invention, and design. Some of these early guns, such as the multi-barreled Gatling gun, still exist today. These other German chronicles also bridge the gap between the so-called handgun cannon which was lighted with a slow match, coal, or hot wire, and the matchlock.

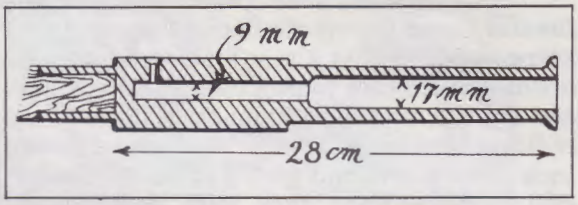


FIGURE 11 — Sectional drawing of the Tannenberger Buchse, a 14th-century cannon excavated intact in 1849.

The Matchlock (About 1450 A.D.)

The matchlock revolutionized the use of firearms and warfare in its time. The so-called handguns of the day were rudimentary, clumsy, inaccurate, and required both hands for operation. The matchlock changed this and enabled man to become much more efficient in striking his target.

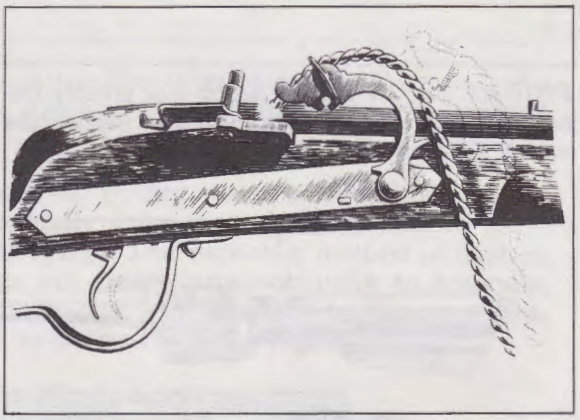


FIGURE 12 — Matchlock firing mechanism with the slow match touching the priming powder. Shadow shows the action at rest.

The matchlock was a semi-circular-shaped piece of metal pivoted to the side of the gun. At the end opposite the pivot was the slow

match, a device to hold a cord treated with saltpeter to make it burn slowly. The tip of the burning cord was gripped in the holder at one end of the C-shaped piece of metal and pushed with a finger to contact the priming powder, thus firing the weapon. With this advancement, sights were put into use and aim became more accurate and determined.

The Serpentine Lock. After about 50 years the simple matchlock evolved into the serpentine kind of lock. Instead of the C-shaped or semi-circular piece of metal holding the slow match, the metal piece was bent to resemble an S. The bottom portion of the S became the trigger. To avoid misadventure and accidental firing, a spring was introduced so that the shooter would have to intentionally pull the trigger.

Sometime between 1450 and 1500, the firearm became more similar to that which we know today in that a sear was introduced, allowing the shooter to pull back the matchlock and hold it, preventing him from inadvertently firing until he was ready. While these matchlock arms sound and look extremely clumsy, odd, and awkward, they were an important step in the evolution of firearms.

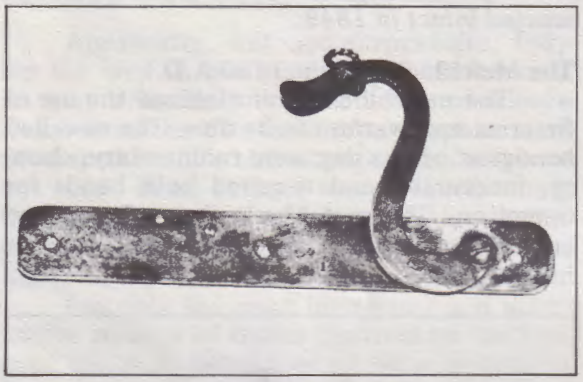


FIGURE 13 — The matchlock was greatly improved with the invention of the serpentine match holder.

Rifling (About 1498 A.D.). During the matchlock period, rifling was introduced, sights became good enough that some documents tell of shooting up to 200 yards, and breechloaders were attempted. They were, of course, unsuccessful due to a lack of obturation of gas at the breech, but the ideas were there and being developed.

It must be true that there really is not much new under the sun because in these earliest examples of firearms, we find that many of the same inventions were attempted and reattempted up through the Civil War. Most of these failed for similar reasons: (1) the incomplete ignition system, which frustrated arms designers until the advent of the percussion cap, and (2) the obturation of gases at the breech which persisted until the invention of the brass cartridge.

Multi-Shot Arms Were Attempted. Multi-shot guns of various types were tried along the way. Some featured revolving cylinders, some had multi-load barrels, and many were designed and tested with different types of multi-barrels.

Leonardo da Vinci's drawings show a large variety of these multi-barreled guns, but they all suffered from the lack of a good ignition system.

The Matchlock's Effect on Warfare. With the advent of the matchlock, warfare began to change. Admittedly, the matchlock, by modern reckoning, was not too fierce a weapon, but in those years it was greatly feared. In fact, one of the greatest knights of all time, Chevalier Bayard, whose motto was "Sans peur, sans reproche" (without fear, without reproach), made it a point, in spite of all his knightly honor, to hang every Spanish gunner he captured. He evidently knew what he was doing because "The Flower of Chivalry" lost his life to an arquebus fired by a Spanish soldier.

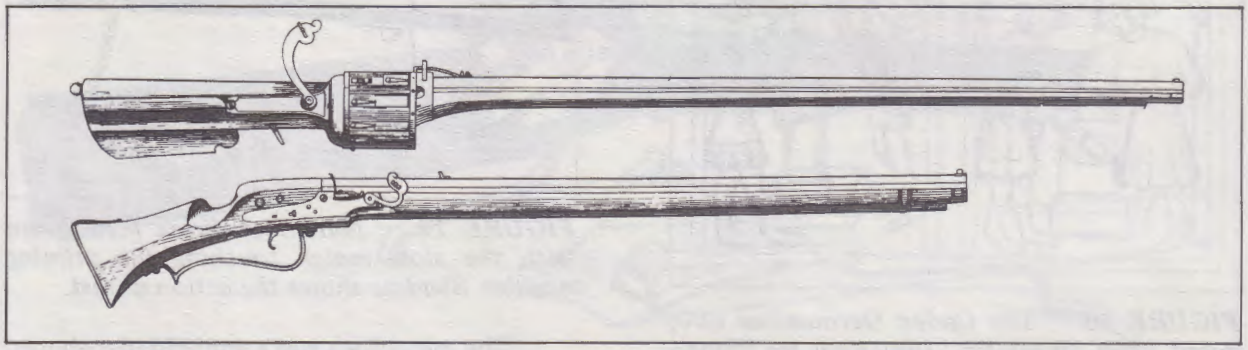


FIGURE 14 — Drawings based on German records show an early matchlock revolving rifle (top) and a breechloader (bottom).

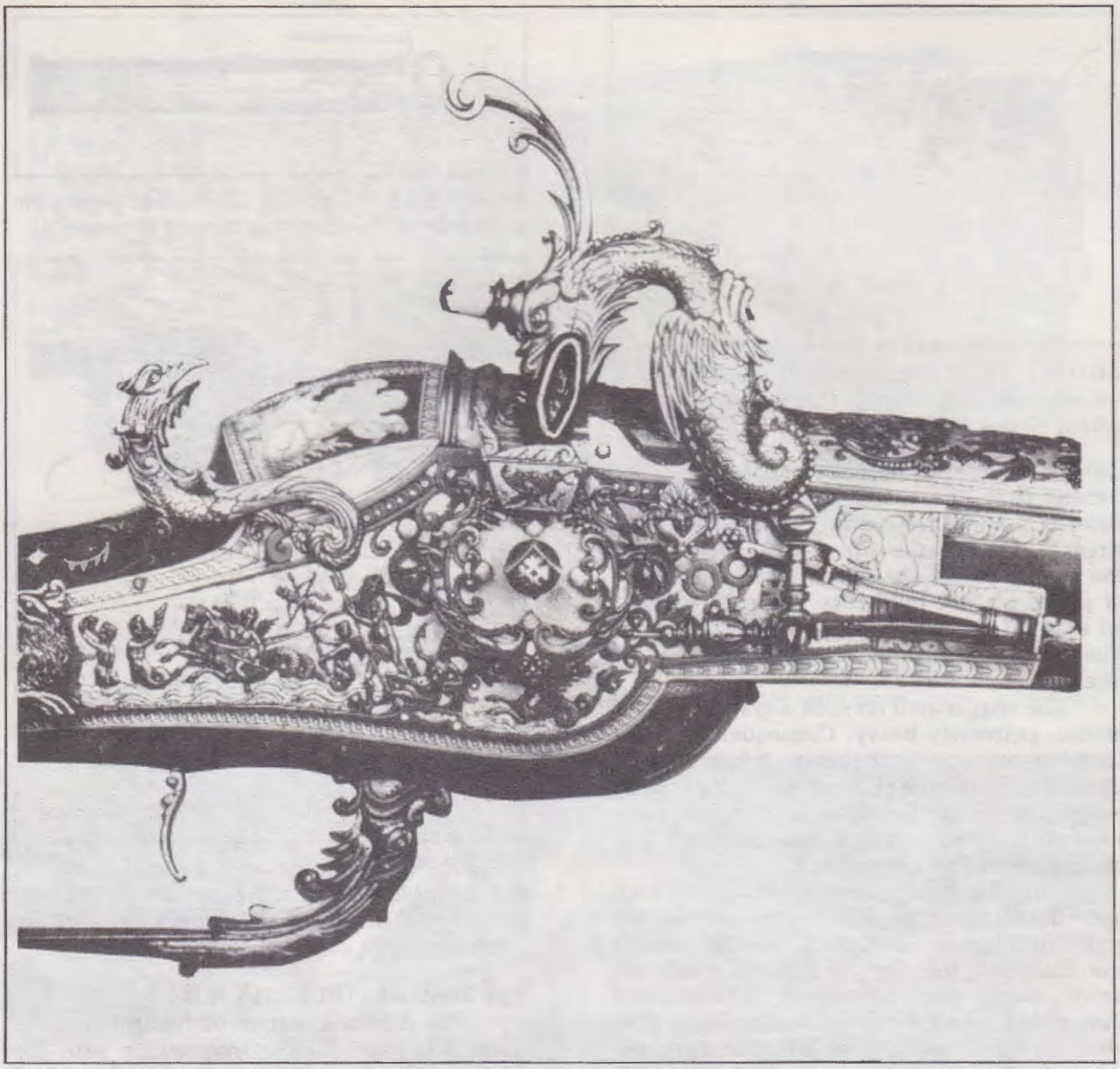


FIGURE 15 — An example of the expense and craftsmanship that went into early firearms is this combination wheel-lock/matchlock, crafted in 1600 by Amanuel Sadeler. Notice that the serpent's jaws hold the flint.

Although revolutionizing warfare, the matchlock was really lacking when it came to dependability. It was particularly susceptible to moisture and rain. In fact, one of the first recorded English uses in battle relates that very little damage was done by the Burgundian mercenaries in the second battle of St. Aubons, due to a rain wetting their primer and slow matches. What was clearly needed was a mechanical device to ignite the priming charge.

The earliest recorded device using a mechanical method of igniting powder was the Monchbuchse of Dresden, which utilized a handle attached to a serrated rod. A piece of flint was held against the rod by a spring and near the priming hole. When the rod was activated by pulling the handle, sparks flew and hopefully entered the priming hole to ignite the charge. This particular method of ignition was not particularly conducive to accuracy, but the way to mechanical ignition was lighted by the sparks of the Monchbuchse.

The Wheel-Lock, Early 1500's

The next evolutionary step was the wheel-lock, which operated on the same principle as the modern-day cigarette lighter. It basically consisted of a serrated steel wheel which rotated against pyrites, or a flint, throwing sparks down into the priming pan. On the true wheel-lock, the turning or rotating wheel was spring-loaded in various ways.

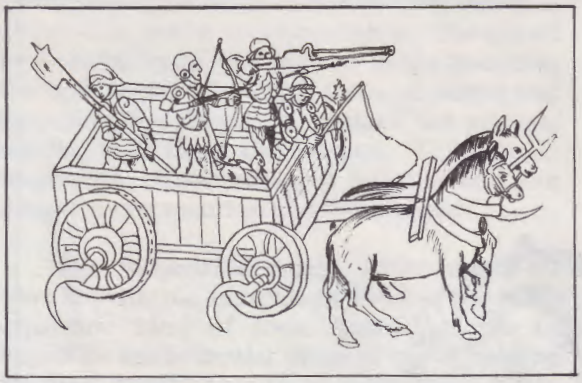


FIGURE 16 — Illustration from the Codex Germanicus 734 shows the matchlock converted to war use.

Usually there was a multi-sided projection coming from the center of the wheel which allowed it to be wound by a spinner, key, or wrench. To fire the wheel-lock, one wound the spring, pulled the cock which held a piece of pyrite or flint until it contacted the serrated edge of the wheel, and pulled the trigger. The wheel spun around, throwing sparks in all directions.

The trigger pull on such a system was, of course, extremely heavy. Consequently, it led to what we now call the set trigger, which utilizes sears or tumblers which, in their modern-day form can be set to release with pressures of less than one-half ounce or even just the weight of the trigger itself.

With the development of the wheel-lock and the trigger, many firearms accessories were invented or developed. Safeties became the thing of the day, and most which we know today were attempted or developed during the wheel-lock era. Since these guns could be fired much more accurately and dependably than the previous matchlock, sights and rifling were both refined considerably. The wheel-lock was an expensive mechanism and was used only by the very rich or the affluent military.

The Snaphaunce (About 1500 A.D.). In the mid-1500's, one of the most important firearm developments occurred — the appearance of the "snaphaunce." The name and origin of the snaphaunce are shrouded in antiquity. However, it was the forerunner of firearms used through the middle of the 19th century and even today in some backward aboriginal countries.

The snaphaunce consisted of a cock, or hammer, which held a piece of flint or pyrite. When the hammer was released, it fell forward and struck near the touch hole, causing sparks to fly and enter the priming powder, igniting the charge and discharging the firearm.

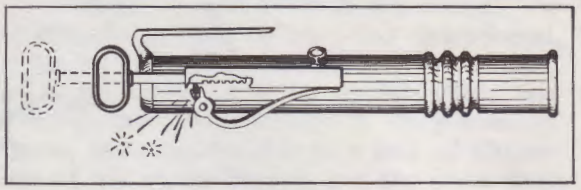


FIGURE 17 — Detailed illustration shows the principle of the Monchbuchse of Dresden.

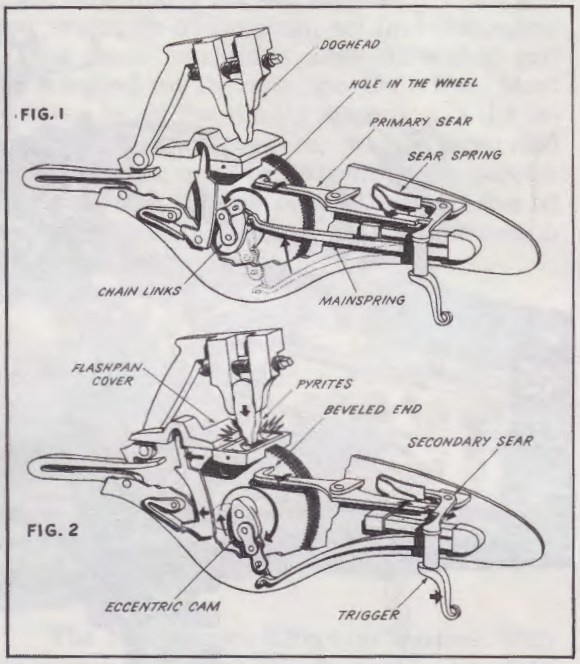


FIGURE 18 — Schematic of the principle of the wheel-lock. The top figure shows the trigger cocked; the bottom figure illustrates the inner workings when the trigger is pulled.

The Flintlock (1610-1615 A.D.)

The flintlock system of firearm development was basically the snaphaunce with the addition of an angled steel pan which covered the priming pan by use of a hinge at either the front or the back. As the hammer or cock containing the flint fell, the flint struck the frizzen, the angled surface of this hinged pan.

The striking of the flint against the frizzen threw back the cover, exposing the priming powder contained in the pan. At the same time, the flint scraped the frizzen, showering sparks into the priming powder to fire the arm.

The flintlock in both rifle and pistol was much in evidence in the settling of the Eastern Seaboard of the United States. It is the gun which was used by both sides during the Revolutionary War and was the official rifle of the United States until 1842. The flintlock was manufactured in various locations, especially Pennsylvania and to some extent New York. Because it was used most commonly in Kentucky, however, it became known as the "Kentucky Rifle."

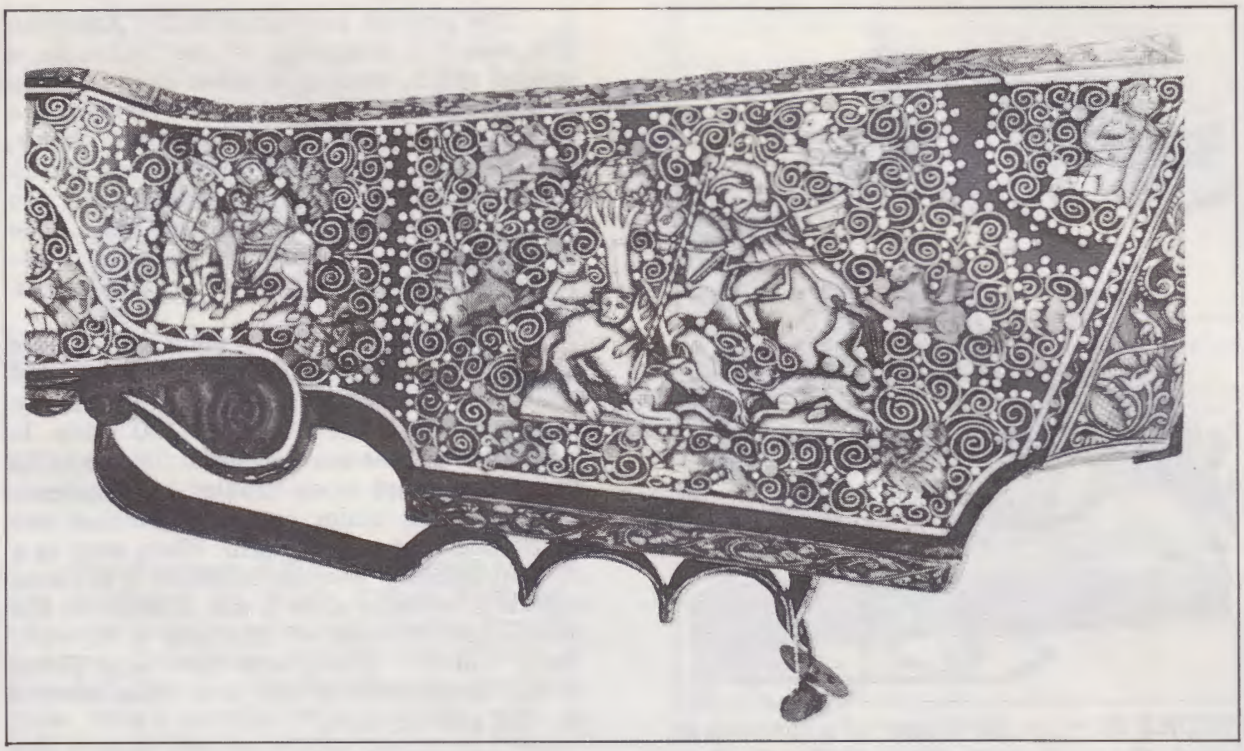


FIGURE 19 — Wheel-locks were often lavishly, expensively decorated with pearl, ivory, silver, gold, and precious gems.

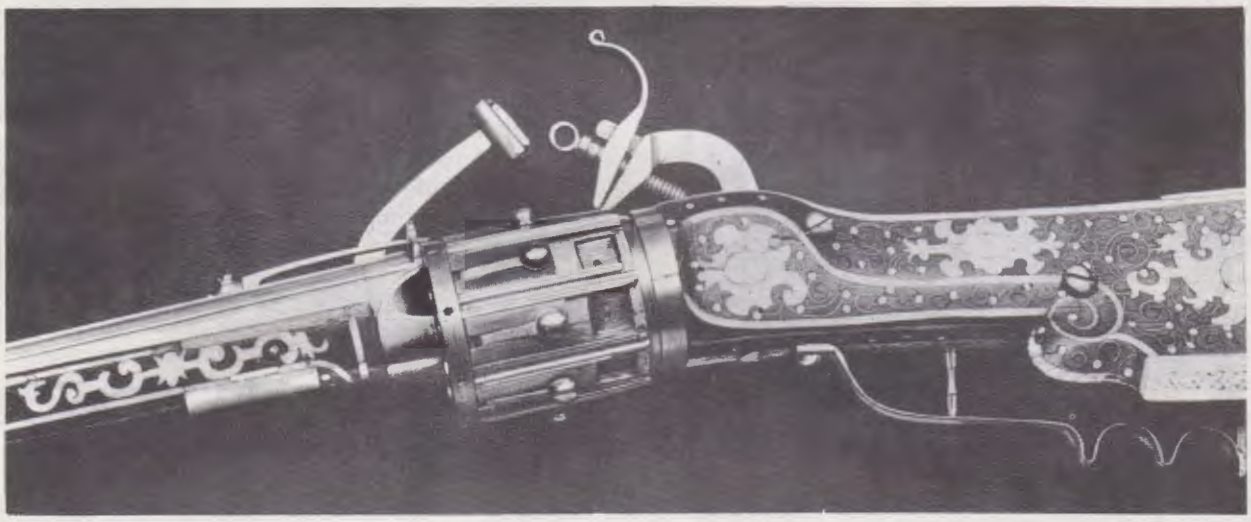


FIGURE 20 — This elaborate snaphaunce, the oldest dated revolving firearm, was made in Nuremberg in 1597.

The American Flintlock Rifle. In the pioneer days, rifles were not new to America. As we have seen, rifling went back to the days of the matchlock. At the same time the Kentucky Rifle was being developed by German and Swiss settlers in Pennsylvania, European rifles were being used in warfare. The European rifle was usually short-barreled, quite heavy, and very slow to fire due to lead bullets which had to be started with a mallet or ball starter and then driven down the barrel with a ramrod.

The Kentucky Rifle, which consisted of modifications to the European design, utilized a longer barrel to better burn the blackpowder and to furnish a better sighting plane. Since the gun was subjected to hard usage and was actually almost as much a tool as the woodsman's axe, full stocks of American hardwood were fashioned to protect the long, slender barrels. The most available and easily carved hardwoods were maple and walnut. These woods are still favored for American gunstocks.

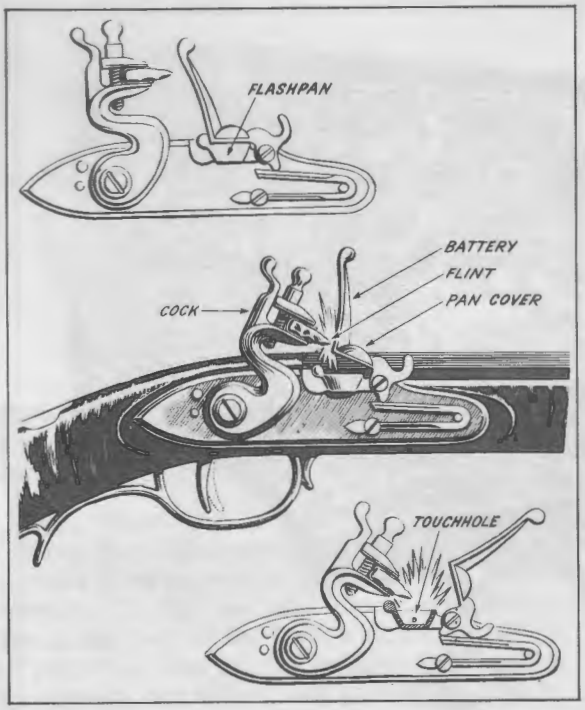


FIGURE 21 — As the trigger of a flintlock is pulled, the cock snaps down, strikes the battery, and is forced back, sending sparks into the flashpan.

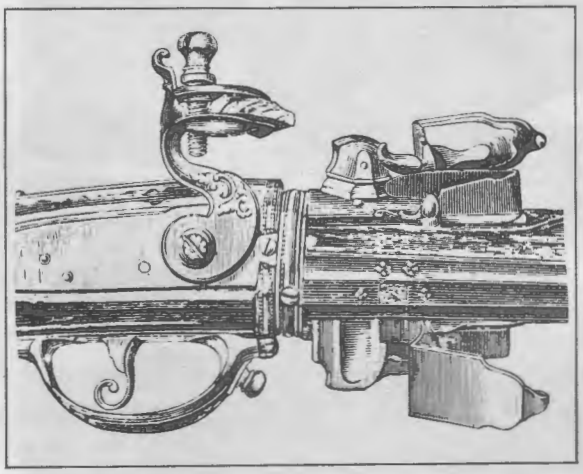


FIGURE 22 — This Italian over-and-under double flintlock had barrels which were hand-rotated.

The greatest innovation in the American rifle was the wrapping of the bullet in a greased patch, usually of either linen or buckskin. This allowed one-stroke loading with a ramrod, which was much easier and faster, gave a degree of obturation or gas-check which was unknown at that time, and also gave better accuracy and longer range. The same system of patching bullets is still in use today when firing both flintlocks and percussion guns.

Regardless of what legend would have us believe of the fabled exploits of Daniel Boone and others of his day, the Kentucky Rifle was not a hairsplitter at 200 yards. It was, however, the most accurate firearm of its day and era, and when handled by a competent marksman under certain conditions was an outstanding military arm. When used as a straight infantry weapon, however, it suffered serious drawbacks since it was deficient in the means and methods of attaching a bayonet. Thus, colonists armed with Kentucky Rifles in the Revolutionary War were often advised to "fire and fall back."

The Paper Cartridge, About 1575 A.D. There were many innovations attempted on the flintlock, including improvements to rifling, such as what we now call microgroove rifling, oval rifling, and other types developed to overcome the fouling so common to blackpowder. It was also during the era of the flintlock that cartridges, or at least the forerunners of cartridges, were developed to a greater extent. This included development of the paper cartridge, in which the ball and powder charge were wrapped in chemically treated paper to allow the carrying of numerous premeasured charges.

Breechloaders "Perfected," About 1750 A.D. Coinciding with the flintlock era was the development of breechloading firearms. While still using blackpowder and ball, these arms were true breechloaders. Although obturation was still one of the biggest problems, many of these breechloaders *worked*, particularly the Ferguson, Collier, and Hall designs.

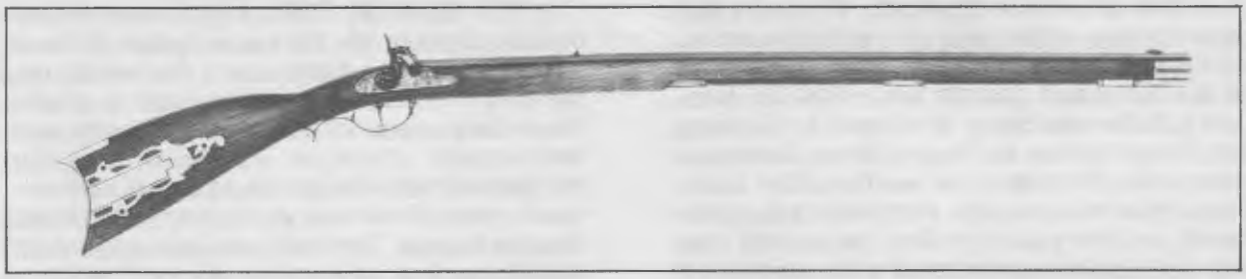


FIGURE 23 — The American flintlock developed a much longer barrel than its European predecessors. Pictured here is a replica of the 1797 Kentucky Rifle made by Navy Arms Company.

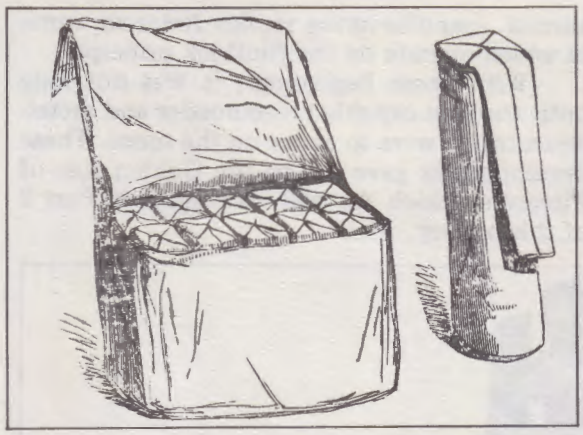


FIGURE 24 — The development of the paper cartridge made it possible to carry pre-loaded rounds.

The Ferguson Rifle. The Ferguson rifle was developed by Major Patrick Ferguson, who was a soldier and a very capable firearms designer. Ferguson's breechloader utilized a threaded breech plug operating in a vertical plane which functioned reasonably well — well enough that he headed a force of Ferguson-armed troops at the battle of Kings Mountain.

Ferguson was a remarkable man as well as an outstanding soldier. In one of his first Revolutionary battles his right elbow was destroyed. He taught himself to write, fence, and shoot lefthanded. Not that it did him much good, because he was killed by a sniper at the battle of Kings Mountain. Of the 1,100 troops armed with the Ferguson, 400 became casualties and forced the surrender of the remainder.

Of all the rifles that were issued, there are now only three Fergusons remaining in museums and collections in the United States.

The Collier. The Collier, a flintlock repeating rifle, operated on a revolving principle which was later carried over to percussion and primer-ignited weapons.

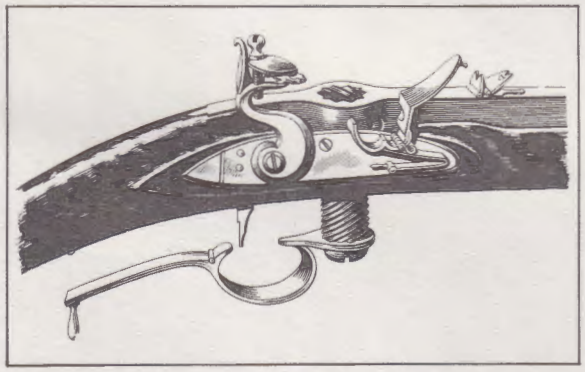


FIGURE 25 — The Ferguson breech-loading flintlock rifle is now a rare collector's item.

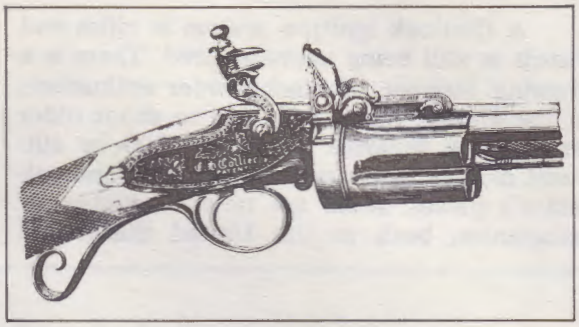


FIGURE 26 — The Collier breech-loading flintlock repeating rifle.

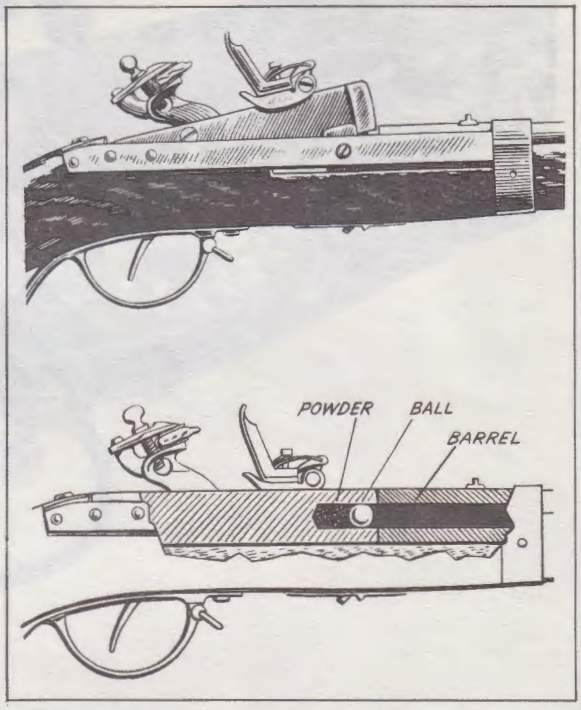


FIGURE 27 — In 1816 the U.S. Army adopted the Hall breech-loading flintlock rifle. Lower illustration shows the action open.

The Hall Rifle. The Hall rifle, patented in 1811 by Colonel John Hall, was the first breechloader adopted by the United States Army. It was a flintlock with a tip-up action and is aptly described as a pistol operating within a long barrel. Upon the release of a lever, the front end of the breech section tips up, loads, and then pushes back down into alignment with the barrel.

The Hall, adopted by the United States Army in 1816, was about a .54-caliber and was used to some extent in the Seminole War and possibly in the Mexican War.

For many years in colonial areas administered by France and Great Britain, the only firearms which the natives were allowed to own were flintlocks. Currently, in portions of Africa and India, the flintlock is still used for hunting and defense.

A flintlock ignition system in rifles and pistols is still being manufactured. There is a growing number of blackpowder enthusiasts in the United States who like to shoot older guns. Since firearms which are 300 or 400 years old are worth more as museum and collector's pieces, there are now a number of companies, both in the United States and abroad, manufacturing replica firearms, some of which operate on the flintlock principle.

With these beginnings, it was not long until the first *capable* breechloader and metallic cartridge were to arrive on the scene. These developments gave rise to the Golden Age of Firearms, which we will investigate in Part 2 of this history.

FIGURE 28 — This 17th-century flintlock, made for Louis XIII, is inlaid with pearls, ivory, silver, and gold. In 1974 it sold for $312,000, making it the world's most valuable gun — so far.