

# Weapons of the 17th Century

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## Blade Weapons- Swords

The 17th century was a time where many advances in weaponry were made. Many things changed in warfare but one thing did remain the same, and that was the use of the sword. There were many different types of swords used for different purposes including military, hunting and social purposes. The sword was an instrument that could inflict pain and death, but it also was an object of art and beauty.

Throughout Europe swords were widely used in the 17th century. Depending on the country and region swords were similar but also different at the same time. For example, a curved sword that was used by the Turks was different than a curved sword used by the Germans, but it was still a curved sword. It is differences like these made 17th century Europe a "storage room" for different types and styles of swords.

There are several different classifications for swords. Curved swords, long swords, short swords are some of the major classifications. Within these classifications there were plenty of different styles of swords which usually depended on what region on Europe it came from. Some swords were used by different parts of the military. For instance, the cavalry didn't use the same swords as the foot soldiers.

Curved swords were widely used in the military throughout most of Europe. These swords were usually for cavalry use. They were very popular in Eastern Europe where this sword has Islamic origins. The blades on curved swords were single edged and usually had multiple grooves. In countries like Poland and Hungary, the main curved sword was called



the Karabela. The Karabela had a grip formed of plaques that were held by rivets to the tang. The guard was usually a cross with short languets. The cavalry used the Karabela and the cross-guard extended to form a substantial knuckle-bow, which reflected German influence. The Turks used a curved sword whose hilt had a simple cross-guard with very long extensions that ran up the grip and down the blade. In Northern Europe curved swords had a distinctive pommel, which took the shape of a lion or some other fierce animal. The guard was fitted with perforated plates on each side and the blade was long, slightly curved, single edged and had multiple grooves on the back edge. As the century went on the design was modified to shorter guards with one quillon and a knuckle-bow.

Another long-lived curved sword was the falchion. This weapon was quite different from the conventional curved sword. It had a re-curved



cross-guard and short heavy cleaver-like blade. It was used by troops which were in charge of arranging transports and wagons during the Thirty Years War. Italy and Germany had their own version of the falchion. It had a very short broad blade, was single edged with a clipped point. A simple S-shaped bar with down turned quillons was utilized for the guard. The knuckle-bow stopped short of the pommel that had a flat extension on the back. Another rare curved sword was the dusack, which was made from a single piece of steel that was shaped like a broad, curved single-edged cutlass.

During the 17th century there was another sword that was also used mainly for combat. The saber was a powerful weapon that was widely

used in the battlefield. The gentlemen also used the saber as "attire" in that era, but its purposes were more for combat rather than show. The Polish saber had a "closed hilt" and was also known as the "hussar's saber". It had a rounded knuckle-guard and it was bent to about one hundred degrees. Some sabers had the knuckle-guard just bent vertically and not joined at the pommel; others had rounded knuckle-guards with horizontal bars to protect more of the hand. There were many different designs for them. The blades of sabers had a circular curvature and the width of the blade and cuts to their opponents with sabers. The Tartar saber was the Polish military saber; it had a blade that was very long and heavy.

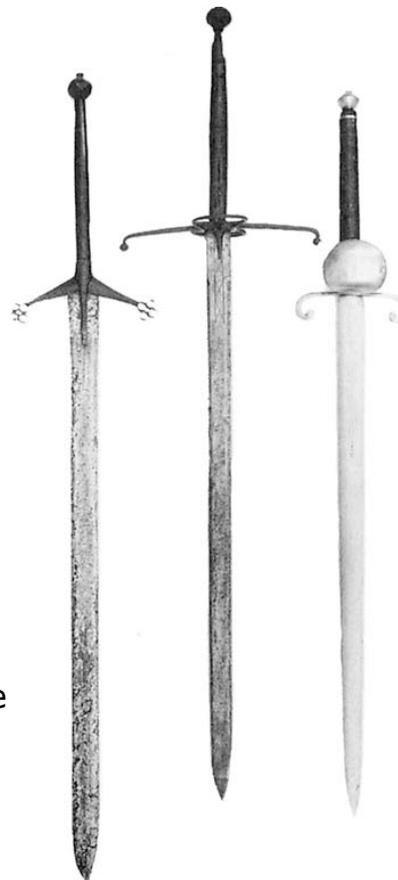


Besides curved swords, the cavalry had other types of swords in their arsenal of weapons. The backsword was commonly used by the cavalry as a piercing and slashing weapon. Backswords were usually worn by cuirassiers. During the 17th century backswords went through some modification. The pommel took a more globular octagonal shape, which was one of the main designs used in England. The hilt had fully developed arms and the quillons were counter curved. A knuckle-bow and a loop guard were also put in. This design was not only used on backswords, but swords such as the English rapier and riding swords also shared the same design.

One of the more commonly used swords in the 17th century was the rapier, which had both military and civilian applications. At first the rapier was a two edged sword which was mainly used for cutting and thrusting. In Northern and other parts of Europe, the rapier was a sword that civilians used to bring with them as regular attire. The civilians usually had a rapier that was just a long, pointed fencing sword. Gentlemen wore rapiers to show signs of rank. The more embellished the sword was, the richer and more noble you were. It

was also used for dueling, which was the case when the gentlemen tried to defend their ladies' honor. The rapier blade usually squared-off (ricasso) immediately below the grip. This was done in order to better direct the use of the weapon. The offensive part of the blade usually varied depending on the hilt and the usage. In the latter part of the 17th century the rapier went through some changes in size and form to create a new type of sword; the small sword.

The basic design of the small sword was the same throughout Europe,. The Italian small sword had a hilt that had delicately chiseled scrollwork. In Saxony the hilt was made of steel or gilded bronze, and the grips were made of Meissen porcelain. The Germans had hilts that were brightly colored. The blades for small swords were flattened, hexagonal-sectioned, rhomboid or triangular-sectioned blades. The small sword originated from the rapier, which is a very interesting change that the weapon went through. The rapier had been used from the late 16th to early 17th century; by the end of the 17th century it was turned into a small sword. The blade of the rapier was shortened and the made broader. This change began happening around the 1630's, which was when small swords or "light rapiers" were considered fashionable to wear. By the 1640's new hilts were developed for small swords. The hilts consisted of a guard that was formed of a large double shell with the blade passing through it. This was one of the final steps in the evolution from rapier to small sword.



Another sword used during battle is the claymore. The word claymore comes from the Gaelic word "claidheamhormor", which meant great sword. The claymore was a cross-hilted

broad sword. This weapon was used in the highlands of Scotland, by mercenaries during the 17th century. It had a straight, broad, double-edged blade, and it also had long, diamond-sectioned quillons which were angled towards the blade. This blade was shorter than conventional two-handed swords, and was used by foot soldiers in battle.

There were some swords that were used for hunting purposes only. Short swords like hangers were exclusively used for hunting. This weapon was widely carried, especially in England. Some of these swords could have a hilt of iron, with a pommel in the shape of a bird or another animal head. Some hangers also had the re-curved quillons which had a small shell attached to it. The blades were usually short and curved.

Swords in this time period went through changes in many different ways. The hilts of swords were also an important part change that depended on the region in Europe. In the early part of the century Italian designs for sword hilts were cross-hilts with knuckle-guards. This was all around the years of 1600-1640. Western European designs for hilts also incorporated the cross-hilt in the early part of the century, knuckle-guards and knuckle-bows were added for extra protection. Through the mid part of the century Western European designs changed; the cross-hilts were curved at opposite ends, and the knuckle-guards were change to cover more of the hand. The Italian designs changed as well, cross hilts weren't too popular anymore; so a circular guard was placed above the



grip, which covered the top part of the hand.

There were many swords that shaped the 17th century, both in the battlefield and in society. Swords were elegant instruments of death that were a symbol of power to anyone who owned one. The gentlemen that did have swords as part of their daily attire, probably wanted to benefit from the elegance and power that was present in their sword.

### **Blade weapons - Daggers**

Swords weren't the only blade weapons used in the 17th century. Soldiers also carried daggers and combat knives as an extra means of protection in the battlefield. There were a number of small blade weapons that a soldier could use. In the early 17th century daggers were usually carried with rapiers. This was discontinued around the year 1640. Nonetheless, daggers were produced even after this. Some of these daggers included dirks and stiletos, which were more of the standard daggers used at the time. There were some daggers however, that were far from the standard. Civilians and guards used other daggers as a symbol of prestige and honor.

The Scottish dirk, which was a descendant of the medieval ballock knife, was one of the earlier daggers produced in the 17th century. The earlier dirks had two lobes that were connected at the junction of the grip and blade. The grips of dirks were usually decorated with bands of studs and interlaced work. The norm by the end of the 17th century was to entirely cover the hilts with interlaced work. The blade of a dirk was usually broad, single edged and sometimes the back edge was set with brass. In the second half of the century, the grip was sometimes done in brass, which was usually decorated and engraved.

Stilettoes are one of the most famous daggers known to us today. It was the best-known Italian dagger; its tapering blade was of triangular section. The quillons were generally short and straight, and the grip was usually narrow and it also had a small pommel. The hilt and grips took many different forms. Wrythen grips were grips and quillons which were pierced and chiseled to represent helmeted warriors. The hilts were usually cut with diamond-shaped facets. Some stilettoes were developed for gunners. The blades of these stilettoes were usually engraved with a table for calculating the weight of the shot needed for the cannon. Most stilettoes were probably developed for self-protection, because most of them were short and plain. The Italian stilettoes go back to about the year 1650 and the prototypes for the stilettoes go back to the year 1600. The prototypes were thrusting daggers with very long and narrow pommels. There were more daggers that were created for different types of guards.

Some daggers like the main gauche were intended for the left hand. Main gauches were usually used by right-handed swordsmen, who would carry their sword in their right hand and the dagger in their left. It was the reverse with left-handed swordsmen. The blades of these daggers had a distinctive central ridge that might be inscribed and dated.

Not all daggers were as straightforward as the ones mentioned above. Some daggers were put on the guns as an accessory like a bayonet, and others used "trickery" to get to their opponents. There are some daggers with blades that divide into three separate sections at the push of a button. When the button is pushed, it operates a powerful spring which is set in the blade. These daggers were



known as dueling daggers had the ability to catch opponent's rapiers and hold them away from the body giving the swordsman an easy target to strike. This dagger was made in the first quarter of the seventeenth century. These daggers mostly originated from France and Italy.

The sword breaker was an English dagger, a quillon dagger which was fitted with a relatively simple guard but had a massive saw-edged blade. The purpose of this dagger was to catch an opponent's sword blade, with the saw-like teeth cut into it. Sword breakers could break well-tempered blades.

Bayonets were daggers that were attached to guns and muskets. The word refers to Bayonne in France, which was an important blade-making center. Musketeers were armed with bayonets. There are two different types of bayonets, a plug bayonet and a socket bayonet. A plug bayonet was designed to fit inside the barrel of the gun. It had a tapered grip and the blade was 12 inches. The military versions were usually plain and uninteresting, but after the year 1680, more elaborate versions were made. Some versions were also made for hunting.

The socket bayonet was designed to fit the socket on the side of the barrel of the gun. In Italy and Spain the bayonets were made for the chase, and were usually decorated. In the year 1688 French troops were also given a bayonet with a sleeve that would fit over the muzzle of the gun. Bayonets were a creative way to combine a relatively new technology like firearms with old-fashioned blade weaponry.

The Saxon Electoral Guard had daggers that had large pommels and were fluted. The blades were plain and the quillons were short. The Dalmatian troops in Venice used a dagger that had a blade with a

tapering triangular section. The quillons turned sharply down towards it. Both pommel and were cut in spiral flutes.

The dagger was an important part of a soldier's gear; even though it was small. Daggers went hand-in-hand with swords and played an important role during battle. Though daggers and swords were important during battle, they were not the only weapons that soldiers had to rely on.

### **Staff Weapons**

Staff weapons were used throughout history as a powerful weapon to hold off enemies. From about the year 1200 to 1650 the pole-arm was used once again in the battlefield. Their appearance signified the end of armored horsemen and gave an increased importance to the infantrymen. Most staff weapons were used in the military to show rank. Throughout 17th century Europe, there were many different types of pole-arms. They can be classified by the following uses: thrusting, cutting, percussion, and combination types. Throughout the years pole-arms slowly evolved and took shape to be deadly weapons. Thrusting pole-arms played an important role in the battlefield. The langue-de-boeuf (ox tongue) was a pole-arm that had a flat or long ribbed blade. The blade either had a square or triangular shape that went to a tapering point. Another weapon that was very similar to the langue-de-boeuf is the early partisan. The early partisan had small wings at the base of the blade, which was triangular in shape, and as time went on these wings got longer and more decorative. It was used as a weapon in earlier centuries but in the 17th century was used by officers to indicate rank, but was also used as weapon when necessary. There were many versions of the partisan. One of the different versions of the partisan was called the corseque, which had curved wings bending back towards the butt of the weapon.

One of the more famous thrusting weapons was the pike. The pike was

a spear used by heavy infantry. It was used for thrusting more than throwing. It was about 14 to 20 feet long, and usually had a small head. The shafts were protected for 3 to 4 feet to prevent them being cut by swords of the opposing cavalry. The pike was used as a defense from cavalry; it was braced onto the ground and pointed towards the opposing cavalry. The pike men protected the musketeers as they were reloading.

Another thrusting pole-arm that was used by the cavalry was called the lance. It was also called the Horsemen's Spear. This weapon was divided into 4 parts, the truncheon, the shaft, the head and the grate. This weapon was used to knock more horsemen off their horses. Cutting pole-arms were another array of weapons used in the battlefields. They could deliver devastating wounds and could incapacitate an enemy very quickly. The classifications of cutting pole-arms comes from one type of pole-arm called the *couteau de breche*, which was basically a knife blade attached onto a shaft. This weapon was primarily a slashing and chopping weapon. All other cutting pole-arms evolved from this basic design. Weapons like the *glaive*, the *bardiche*, the *lochabar* and the *Jedburgh axe* are examples of pole-arms used in 17th century combat. The *glaive* was a larger *couteau de breche*. It had a small extension on the back, which could have been used as a parrying hook. The *bardiche* was a pole-arm with a long crescent-like blade, which extended far beyond the pole. On the upper end it was attached to the shaft with a socket and on the bottom end it had a flange that was nailed to the pole. This weapon was used to slash enemies and sometimes even used to chop limbs. The halberd was one pole-arm that went through five centuries of changes. The halberd is classified as a cutting weapon, although as years went by and advances were made it became a combination type staff, which incorporated thrusting and cutting, but by the 17th century it was the thrusting part of the weapon that was the most important. The halberd consisted of "an axe blade surmounted by a

thrusting point backed by a pointed beak". In the 17th century there were many changes made on the halberd. Some of these advances were the following: elaborate piercing and engravings were put on, the reinforced point was eliminated, it was given a light square head with a short spike.



The halberd was also used to show rank.

There were usually used by town militiamen, place and church guards who carried them as parade weapons.

Axes like the Lochaber axe, had two sockets that attached the blade to the pole. The blade was usually large and curved. There was a hook that faced the opposite edge of the blade. This weapon was used to severely cut the enemy. The use of the hook is still under question. Another axe used around this time period was the Jedburgh axe. They were known as Jedburgh staves in the early 17th century. The axe is from Scottish origin.

Percussion pole-arms consisted of one handed weapons such as the mace, war hammer, and the bec de corbin. These weapons were designed to be used on horseback. Weapons like the military flail and the Morgenstern are prime examples of percussion pole-arms. The Morgenstern was a club which usually had spikes arranged in a "star" configuration. It sometimes also had a spear point at the end. It was used to deliver fatal blows to the enemy; the combination of the force at which the club was striking the opponent and the spikes thrusting through the skin and bone, made this weapon a very dangerous asset. Though these weapons are primitive, some were used in parts of Europe in the battlefield.

Combination pole-arms like the English bill is considered to be another

version of a halberd. The blade of the English bill differs from the blade of the halberd. The blade has a forward curve on the upper end, which also a characteristic of the agricultural version called the billhook. The spear of the weapon was usually round, square or flat. The Lucerne Hammer was another combination pole-arm had a spear point and a pointed beak. Instead of a blade like the halberd, the Lucerne Hammer had a four-pronged hammer. The prongs were meant for piercing. The weapon was meant to pierce an opponent while delivering a devastating blow to the enemy.

Even though pole-arms were becoming less useful by the end of the 17th century, they served as a deadly weapon in the battlefield. They were always considered a secondary weapon and never got the type of recognition that swords would get; even though, they were important in the battlefield, the use of pole-arms became more and more uncommon when firearms were being used in the battlefields.

### **Firearms**

Firearms in the seventeenth century were an integral part of the battlefield. A relatively new technology for those times, firearms shaped and changed warfare. Even though firearms were invented centuries ago, even today we see the effects of firearms in warfare. It is important to note that when firearms did come into regular use in the battlefield, some of the older weapons that have been used for hundreds of years were slowly being replaced. For instance, archers were a breed of soldier which coming to an end by the seventeenth century. More and more countries started to rely on the use of the firearm than the bow and arrow. It is obvious that the introduction of the firearm to the battlefield was of historic proportions that took place in all of Europe.

Ignition systems and their evolution was one of the most important developments to happen in combat in the 17th century. All the

countries in Europe benefited from these advancements. The battlefield was slowly but surely becoming overrun by firearms. The firearms of that time period went through many different changes, in design and ignition systems. The ignition system was one of the most important parts of firearms. There needed to be an efficient ignition system to fire the ammunition. There were different types of ignition systems, which evolved through time. The ignitions were the following: matchlocks, sear locks, wheel-locks, and flintlocks. Matchlocks were ignition systems that incorporated the slow match, which had to be brought into contact with the priming powder. This was done by a combination of levers. When the lower arm is pulled up toward the stock, the upper arm is lowered to the pan. This ignition originated from the trigger mechanisms of crossbows.

There was another type of matchlock called the snap matchlock. This ignition system was attached to a metal plate. It had a cock that was kept pressed onto the pan with the spring. The cock had jaws that held a slow fuse or match. In the lock plate, a stud or sear protruded through an aperture. As the cock was raised from the pan, the heel, a section at its lower end, was held by the sear. A button was placed at the rear end of the sprung lever. This button projected through the lock plate. As soon as the button was pressed, the cock was released by the sear; allowing the cock to snap down onto the pan. This ignition system was rarely used in the 17th century but was found in some guns.

The sear lock was an ignition system that was introduced in the late 16th century and was used till the close of the 17th century. The sear lock was different from the snap-matchlock, because it operated in the opposite fashion. The cock which had the slow match was held back, away from the pan. Linked by levers and to a long lever shaped trigger, the cock was pivoted on a spindle. This trigger was underneath

the stock and ran parallel to it. The cock was lowered into the pan when the trigger was pulled towards the stock.

Another category of ignition systems was called the wheel-lock. This ignition system consisted of a lock plate, which was shaped to fit a wheel. A pan was attached to the top edge, and there was a wheel which was mounted at the bottom of the pan. A strong V-shaped mainspring was linked to a short chain. The short chain was also the wheel spindle. The lock plate was a sear, which was held into position by a spring. The cock could be moved onto or away from the plate manually. The cock was brought down on to the pan cover when the wheel was turned until the sear clicked onto position. Once the sear was engaged, that's when the cock struck the pan and fired the gun. The wheel-lock was not used much during the 17th century because it was replaced by the flintlock.

The flintlock is believed to have been invented in France around the year 1620, by an inventor called Marin le Bourgeois. By the 1640s the flintlock had already been fitted on military weapons. The flintlock was a type of snap-lock, which had a vertical sear that was attached to the inner side of the cock spindle. Another variation of a flintlock ignition was called the snap-hance lock. The flint was held in the jaws of the cock, which struck the steel plate that was vertically (hinged) over the pan. Scottish firearms incorporated snap-hance locks in their design.

With firearms appearing in battle, different and new military strategies were brought about, which changed warfare considerably in those times. Firearms were used in all the countries in Europe. To the general public, one of the well-known firearms of that time was the musket. The musket, in combination with other firearms, shaped modern warfare. Firearms, being a relatively new technology, were produced or sought out by every country in Europe during this time.

Some of the fire-arms of that period include: the musket, the caliver, the carbine, and the harquebus.

The musket was a weapon that was developed slowly but surely replaced the use of archers in the battlefield. Most muskets were quite hefty pieces of equipment and required many other accessories to go with them. A ramrod was one of these accessories that was used to pack the bullet and powder into the barrel of the musket. It was usually a little longer than a barrel of a musket and was made of wood. The musketeer would also carry a powder pouch; this was to make sure he had an ample supply of powder during battle. A fuse rope was also needed to light the gunpowder. The fuse rope was used in the ignition systems of the muskets. Since the musket was large and heavy, usually the musketeer would need a musket rest. A musket rest was a pole that gave the barrel of the musket support while the musketeer was shooting. It usually helped the musketeer control the gun and supported some of the musket's weight.

The harquebus was a light gun that had a barrel length of 75 cm (2.5 ft), a bore of 17, and a total length of 90 cm (3ft). This was another firearm that was used by the cavalry, but in the 17th century it declined in popularity and the carbine replaced it.

The carbine was a firearm that was prominent in battle. The cavalry used it. The term describes the firearm as being a short, light gun. Carbines were said to be "about a yard or more long in the barrel". The carbine was usually fitted with a wheel or snap lock. It contained a side bar so it could be carried around the shoulder. They had a barrel of 76 cm (30 in), a total length of 114 cm (44 in), and a bore of 24.

The caliver was a gun that was longer than arquebus but shorter than musket. It was a term that was used in England to describe "a type of long gun used without a rest for military purposes". The barrel length of a caliver was about 100 cm (39 in), a bore of 17 and its total length

was about 137 cm (4.5 ft). This firearm was not used in England after the Civil War.

Pistols were secondary weapons used in the 17th century battlefield. The barrel length varied upon country. Some barrels were longer than others, but the average barrel length was about 8.75 inches, and the average total length was about 14.5 inches and they weighed roughly around 1 – 4 pounds. Though pistols were used in the military; it wasn't uncommon for civilians to also own pistols, which were used for various reasons.

Some firearms weren't as "straightforward" as the ones mentioned above. During the 17th century there were some guns that were known to have more than one barrel. Some pistols were known to have as many as 9 barrels. Other firearms also had rotating barrels that could be called the early versions of machine guns.

Firearms slowly started replacing weapons that had been used for centuries. Firearms like the musket slowly but surely started to replace the pike. Once the bayonet was perfected, muskets became obsolete. Another weapon that firearms replaced was the bow and the crossbow. Since bullets were sent at a higher speed than arrows, they were deadlier weapons. The use of archers slowly declined throughout the century.

Even though bows and crossbows were becoming less popular during the 17th century, they weren't totally replaced. They were still used in battle and were very effective weapons, proving why they had been in use for centuries.

The crossbow was a stringed projectile weapon. It was a bow which was mounted on a crosswise by a system of cord bindings or by a

metal bridle, a tiller, which was attached to a wooden shaft. A shaped disc called a nut was mounted with its axis across the stock. The nut was grooved on the upper surface to serve as a runner for the bolt. In the first half of the 17th century, the crossbow was used for hunting in countries like Italy, France and Spain. This weapon was used to bring down large and dangerous animals like wolves, bears and stags. There were other types of crossbows like the stone and bullet crossbows that were used to hunt small animals. Later on in the century, stone and bullet crossbows were used for sporting purposes, especially in Germany, Belgium, England and Switzerland.

Another type of crossbow called the light crossbow was also in use at the time. It was a small crossbow that was usually made with a steel tiller. This weapon could easily be concealed and was considered to be an underhand weapon. One of the unique features about this crossbow was that it had a reloading mechanism. This weapon was banned in the 17th century.