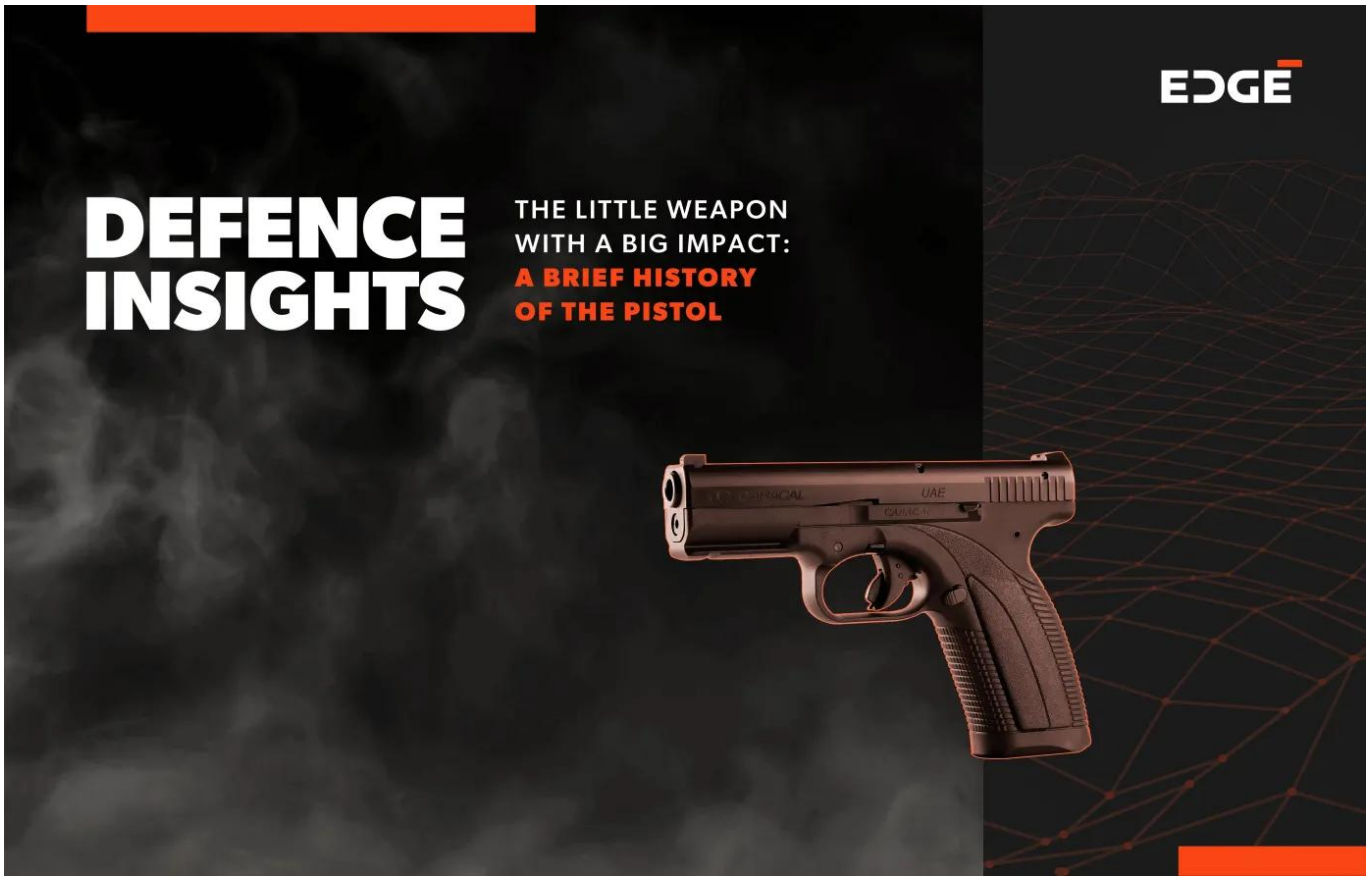
The Little Weapon with a Big Impact: A Brief History of the Pistol



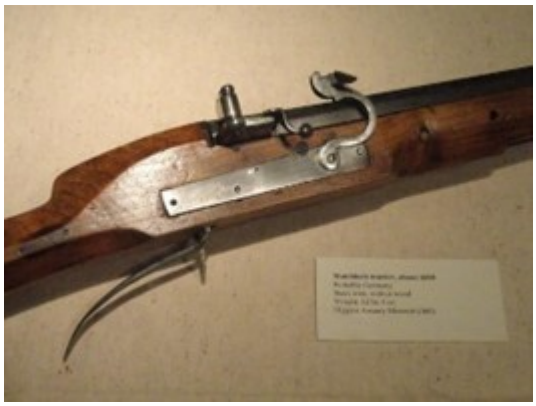
The evolution of weapons permanently changed trajectory following the invention of the firearm, when militaries set their sights on a new type of weapon that could change the tides of conflict. A weapon firing a projectile capable of piercing steel armour at a distance effectively rendered swords and lancers useless. The history of guns intrinsically shaped the outcomes of conflicts and the pistol holds a very special place in the evolution of weapons.

The evolution of firearms and history of pistols

The early history of pistols would be shaped by innovations in firing mechanisms up until the early 1800s. A single projectile could only be fired until the invention of the revolver and then in the late 1800s, the pistol commonly seen today would begin to take shape.

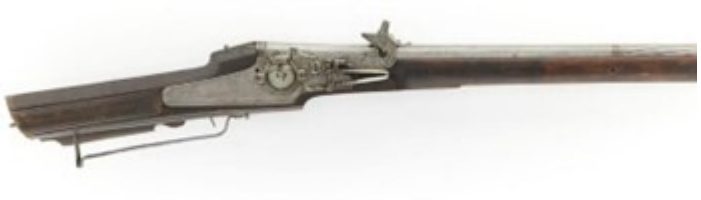
The history of firearms began with the discovery of black powder in 9th century China, giving rise to the hand canon. The oldest known barrel handgun is the Heilongjiang hand canon which dates back to 1288. Hand canons were fired applying a lit match to a small hole at the rear of the canon where the gunpowder is stored. Matchlocks then began to appear in Europe in the mid-15th century. With the matchlock came the first firing mechanism. The matchlock had a slow-burning match resembling a thin rope attached to a

clamp, where upon pulling a lever (and in later models, a trigger), the slow-burning match held in the clamp would be lowered into a flash pan, igniting the priming powder.

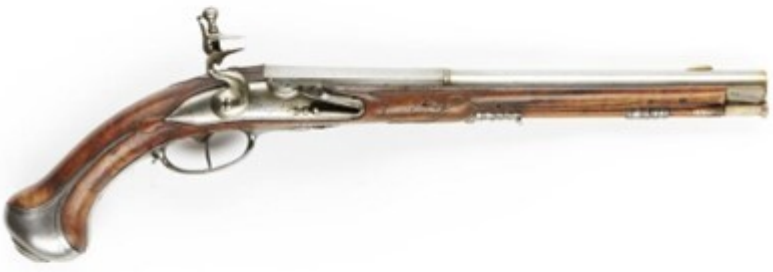


Matchlock rifle exhibit in the Higgins Armory Museum, 100 Barber Avenue, Worcester, Massachusetts, USA.

It was not until later versions of the matchlock and the invention of wheel lock handguns that resemblance of the pistol would appear. The wheel lock was the first self-igniting firearm, developed in Europe around 1500. Working similarly to a cigarette lighter, a spring-loaded steel wheel would spin against a piece of pyrite to generate sparks that ignited the gunpowder.

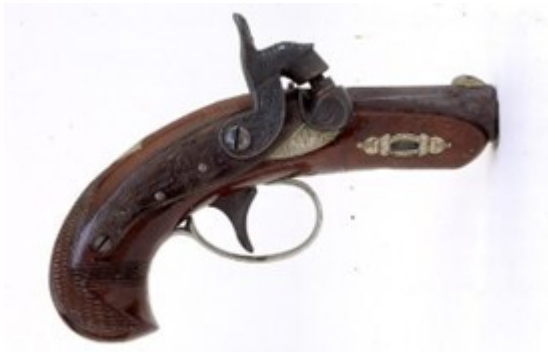


A 17th century European wheel lock rifle.



A flintlock pistol made by royal Swedish gunsmith, David Bars. Dated between 1730-1750.

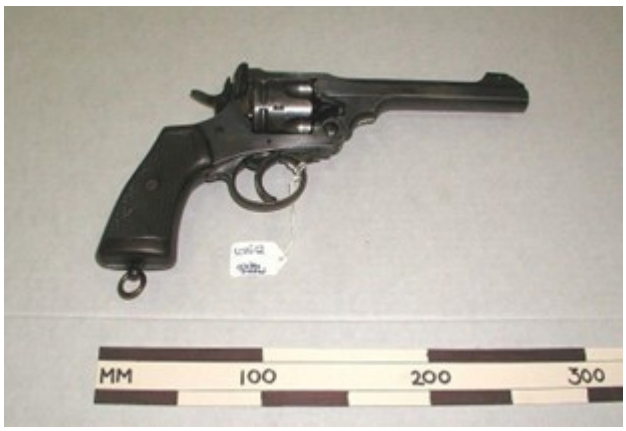
The cap lock mechanism or percussion lock was the next mechanism to come into use, developed in the early 19th century. The cap lock mechanism worked by a percussion cap being struck by a hammer to set off the main charge. Early percussion caps contained mercuric fulminate, which exploded upon each strike. The flames from these explosions entered the barrel, where they ignited the main powder charge. The cap lock was easier to load, more resistant to weather, and much more reliable than flintlock.



A short barrel Deringer cap lock pistol.

The history of revolvers

The evolution of weapons then led to the percussion era, and in 1836, the first practical mass-produced revolver entered into production. It used a revolving cylinder with five chambers aligned with a single, stationary barrel. Although there were earlier iterations of this type of weapon, the revolver was the first practical repeating handgun with single-action and/or double-action. The metallic cartridge era then began in 1857 as the first commercially successful revolver to use metallic rim fire cartridges was introduced, instead of using loose powder, musket ball, or percussion caps.



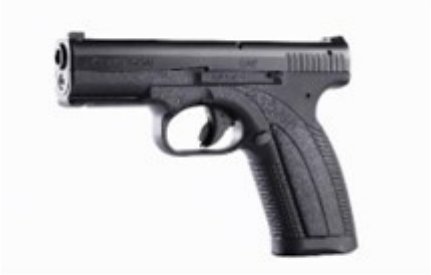
Webley Mk VI Service revolver, circa 1917, WW1 metallic cartridge revolver. - Collection of Auckland Museum Tamaki Paenga Hira, W1512

The inventions of the metallic cartridge and then smokeless powder allowed for massive improvements in handgun ballistics. The magnum era of revolvers then began as pistol manufacturers could produce revolvers that used cartridges with more smokeless powder and subsequently, improved ballistics.;

The history of semi-automatic pistols

Once recoil-powered machine guns were invented in 1883, gunsmiths were on the chase to develop something smaller, using the principles of handguns. The first two patents for a semi-automatic blowback pistol came out of Austria, with the earliest patented semi-automatic pistol being the Salvator-Dormus pistol. The next patent was the Schönberger-Laumann 1892. It was not until 1896 that the first mass-produced and commercially successful semi-automatic pistol was introduced. The Mauser C96, or 'Broomhandle', designed by Paul Mauser, was one of the first self-loading pistols used extensively in battle. Following the C96 was the Schwarzlose Model 1898, a semi-automatic pistol invented by Prussian firearm designer Andreas Wilhelm Schwarzlose. The Schwarzlose Model 1898 was said to be the most advanced and ahead of its time, but was never widely adopted. In 1898, production commenced for a pistol that looked more like the ones we see today. It was a locked-breech action weapon, which is commonly used by the majority of modern large calibre semi-automatic pistols.

A notable development in the history of pistols is the striker-fired pistol. Striker-fired pistols, which have no external hammer or firing pin, although around for decades, are gaining popularity. Said to be easier to pick up and shoot, when the slide is racked back and released forward, a spring holds the firing pin back under tension. When the trigger is pulled, the tense spring releases the firing pin and a round is fired from the chamber. Due to there being no hammer to cock, the trigger pull on most striker-fired pistols is incredibly easy with a low pull-weight. The introduction of hammerless technology has drastically improved safety, firing rate and accuracy of pistols. Great examples of striker-fired pistols are the CARACAL EF and CARACAL F Generation II.



The CARACAL EF

The CARACAL F Generation II

The history of firearms has taken centuries to reach the systems we have today. Over the past century, major changes to firearm technology have slowed down. Now, innovations in pistols can be seen through strong research and development that implements changes in design, resulting in improved weight, accuracy, and durability. Advanced manufacturing developments such as smokeless powder, striker-fired action, and polymer grips has seen the evolution of pistols reach new heights in terms of accuracy, weight, firepower, accessibility, and safety. The future of pistols remains up for debate and as history tells us, is likely to follow suit from innovations in larger systems. Firing mechanisms may be electric and ammunition may be caseless. What we do know is that companies such as CARACAL are heavily investing in research and development, in addition to strong manufacturing

capabilities to bring the future of pistols to the present.