

An analysis of a double-barreled Wheellock pistol
made for Emperor Charles V by the gunsmith Peter Peck.

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Objects as History
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This firearm is a Double-Barreled Wheellock Pistol made by the German gunsmith Peter Peck on behalf of the holy roman emperor Charles V. The firearm is an exceptional example of an early wheellock pistol and represents the technological advances of the renaissance as well as the power and authority of its owner Charles V. The pistol is a true masterpiece and a resplendent example of the renaissance spirit of invention and human exploration

The pistol is a relatively early example of a wheellock pistol as it has been estimated to have been created in approximately 1540¹ The Wheellock mechanism was the first firearm which could be fired without an existing flame. It was the successor of the matchlock and derived its name from the wheel which rotated causing the spark which would ignite the gunpowder contained in the pan. This would create sparks which would in turn ignite the main charge of gunpowder contained in the firearms barrel which would propel the ball . The mechanism is similar in its function to the modern cigarette lighter. The invention of the wheellock was an important advancement in firearm technology as it was the first weapon which could be fired instantly as opposed to the matchlock mechanism which preceded it. While the matchlock required a burning cord to fire, the wheellock could be instantly readied and fired and therefore had many advantages over the matchlock such as being much less susceptible to issues caused by rain or wet conditions and being more subtle due to the lack of light and smoke from the burning cord. These attributes of the wheellock as well as its relative small size and self contained method of firing meant that the wheellock was the first firearm which could feasibly be concealed under clothing and used for assassinations. This can be seen in one of the earliest

¹ Grancsay, Stephen V. "A Wheellock Pistol Made for the Emperor Charles V." *The Metropolitan Museum of Art Bulletin* 6, no. 4 (1947) p.117

known written references to wheel locks in the form of a letter from the Emperor Maximilian to the electoral princes and city councils and other important authority holding people in his empire in which he urges them to “prohibit the use or manufacture of small or large guns which ignited themselves”² this is clearly most likely a reference to wheellock firearms. Despite its many advantages the wheel locks mechanism was extremely complicated and required the skills of an expert gunsmith. This meant the weapons were much more expensive and restricted their ownership to the elite few who could afford them which gave them an air of nobility, a fact which is clearly shown in the grandiosity of the pistol of Charles V.

The first documented evidence of a wheellock mechanism is in Leonardo da Vinci’s Codex Atlanticus.³ The Codex contains 5 pages dedicated to drawings of wheellock mechanisms designed to create fire, which were annotated with notes describing their function. None of Leonardo’s drawings of the mechanisms depict them mounted on a firearm which suggests that they were designed for use in tinderboxes.⁴ Because of this, some Scholars give credit for the Invention of the Wheellock mechanism to Leonardo da Vinci and thereby credit to Italy however the origins of the Mechanism is sketchy and no consensus has been agreed on. Scholars dispute over whether its invention can be attributed to German or Italian Gunmakers. Haywards opinion on the matter is that “The wheel-lock was so complicated a mechanism that it is unlikely to have been devised by a single inventor. Its development must have been the result of years of

² Hayward, J.F. *The Art of the Gunmaker*. Vol. 1. 1500–1660. London: Barrie and Rockliff, 1962. p. 62.

³ Hayward, J.F. *The Art of the Gunmaker*. Vol. 1. 1500–1660. London: Barrie and Rockliff, 1962. p.40

⁴ *ibid*

experiment, and it is probable that a number of different craftsmen had a hand in it.”⁵ To summarize Haywards arguments on the matter he believes that it originated in Italy due to the fact that the earliest surviving wheel locks of German origin are more advanced than those of Italian origin which seems to imply that they were made at a later date.⁶

The Emperor's pistol is an exemplary example of an early wheellock pistol. According to the Stephen V. Grancsay, the Curator of Arms and Armor at the metropolitan museum of art “Charles V’s pistol is in every way the most valuable firearm in the Museum’s collection.”⁷ The pistol is historically valuable due to a number of its uncommon technical features which are “valuable in the study of early firearms”⁸ and the fact that the artists who created the masterpiece have been identified. A technical feature in the firearm which differentiates it from others is seen in its frontal trigger which is held in place and locked by a pivoted catch. This form of safety which acts directly on the trigger is a rare and unusual feature which is only shared by two pistols belonging to the Royal Armory in Madrid. Another rare feature displayed in the pistol is in its stock, the trigger guard is screwed to a heel plate which was designed to help the shooter balance the pistol when firing. The weapon also contained a “supported sear” which was a system in which the two sears which hold the wheels which the triggers release are activated by “a single double action spring” which helped to make the pistol less unwieldy and lessens the trigger pull. These technologically advanced mechanical features all helped to compensate for the weight of the pistol which, at five pounds and ten ounces with

⁵ Hayward, J.F. *The Art of the Gunmaker*. Vol. 1. 1500–1660. London: Barrie and Rockliff, 1962. p. 62.

⁶ *ibid*

⁷ Grancsay, Stephen V. "A Wheellock Pistol Made for the Emperor Charles V." *The Metropolitan Museum of Art Bulletin* 6, no. 4 (1947) p.117

⁸ *ibid*

its double locks and barrels, was heavy and poorly balanced in comparison to modern standards. It would have been necessary to “use both hands to aim and discharge the pistol without too much flinch.”⁹ This weight can be attributed to the fact that the firearm is “one of the earliest pistols extant” and was designed to fire with the power to pierce through the heavy armor worn by combatants at the time. As the use of armor became less popular over the following years gunsmiths no longer had to design firearms with the same amount of power.

I mentioned earlier part of the value of this particular firearm lies in the identification of its maker. This can be identified by the breechblock and the neighboring section of the barrel of the firearm which are etched with two capital P’s (see figure 3). This signature mark identifies the gunmaker responsible for the creation of the firearm as the Munich gunmaker Peter Peck. In his biography of the artist titled “*Peter Peck, the Emperor’s Gunsmith*” Erwin Schalkhauser, the chief curator of the Bavarian Army museum describes Peck as being, “a grand-master gunmaker who exercised strong influence upon wheellock evolution in 1540-50, the critical years of this mechanism’s proliferation throughout Europe”.¹⁰ According to Tax records of the time, Peter Peck became an independent, tax paying citizen of Munich between 1533 and in 1539 he began his career as a watchmaker.¹¹ Records show that in 1542 he began to rent a bore mill for three florins a year. Though he continued to be registered as a watchmaker for some time the

⁹ Grancsay, Stephen V. "A Wheellock Pistol Made for the Emperor Charles V." *The Metropolitan Museum of Art Bulletin* 6, no. 4 (1947) p.122

¹⁰ Schalkhauser, Erwin. "Peter Peck, The Emperor's Gunsmith." In *Art, Arms and Armour: An International Anthology*, edited by Robert Held. Vol. 1. Chiasso, Switzerland: Acquafresca Editrice, 1979. pp. 183

¹¹ Schalkhauser, Erwin. "Peter Peck, The Emperor's Gunsmith." In *Art, Arms and Armour: An International Anthology*, edited by Robert Held. Vol. 1. Chiasso, Switzerland: Acquafresca Editrice, 1979. pp. 184

rental of this bore mill likely marks the beginning of his career as a gunsmith as the machinery used in a bore mill was usually used for boring out wooden water pipes or tubes and barrels for firearms. The first evidence of Peter Peck being described as a professional Gunsmith is found in a letter written in 1544 by the Augsburg merchant prince to an individual by the name of Veit Horl in Antwerp. In the letter in question the prince advises Horl to tell the Count de Feria that the gun he had commissioned to be made by Peter Peck had yet to be completed because he was busy due to the fact that he had “had to make several guns for the Emperor which he is to bring to Worms”¹² The fact that he could keep a count waiting because he had more important business to attend to, namely that of making guns for the Emperor, clearly shows that by the time the letter was written Peter Peck was a highly prestigious and sought after gunsmith who was famous and renowned in his time, both in his hometown of Munich as well as throughout Europe. Schalkhauser makes the point that this “testifies to the spread of the wheellock over the whole of Europe, so that a watchmaker could find it commercially attractive to switch to wheellock making”¹³. One of the other guns made by Peter Peck was a breach loading turret gun made for the city of Munich. Schalkhauser writes that the weapon shows Peter Peck to be “an experimenter with breech loading mechanisms” and one who “managed to get quite satisfactory results” This is an important fact to note because of the fact that the breech loader was the next major advancement in firearm technology following the wheellock and prove Peter Peck to be an innovative gunmaker who was attempting to make guns with technology which surpassed

¹² Norbert Lieb, *Die Fugger und die Kunst im Zeitalter der hohen Renaissance*, Vol I, Munich 1958, p.148

¹³ Schalkhauser, Erwin. "Peter Peck, The Emperor's Gunsmith." *In Art, Arms and Armour: An International Anthology*, edited by Robert Held. Vol. 1. Chiasso, Switzerland: Acquafresca Editrice, 1979. pp.203

that of his time. Schalkhauser concludes his Biography declaring Peck to be “an all around craftsman of the German Renaissance.” and stating that “Peck’s competence is evident from the surviving pieces; his versatility is attested by the breechloaders of his construction and probably of his invention”¹⁴

The gun was commissioned by and made for Charles V The Holy Roman Emperor and is appropriately grand. As J F Hayward writes in his book “*The art of the Gunmaker*” the gun contains “no fewer than fifty nine separate parts to the lock, and the stock and mounts are decorated with a richness appropriate to its owner.”¹⁵ The Emperor Charles V, the owner in question, was an incredibly powerful man. As the ruler of the combined Spanish and Holy Roman empires as well as the Habsburg Netherlands. Charles V was the heir to three different powerful dynasties, the houses of Valois Burgundy, Trastamara and Habsburg. This gave him control of a vast empire with territories throughout all of Europe and colonies in America and Asia. His massive empire was famously called “the empire on which the sun never sets.” This huge power and authority is represented in the symbols etched on the wheel covers which house the wheellock firing mechanisms of the pistol which can be seen in figures 1 and 2. The front wheel displays two columns with the inscription PLVS VLTRA, a latin phrase meaning “further beyond.” The phrase was the emperor's personal motto and has since been adopted as the spanish national motto and can be seen along with the symbol on the modern flag of Spain . The columns represent the pillars of hercules in Greek mythology which were supposedly built by Hercules

¹⁴ Schalkhauser, Erwin. "Peter Peck, The Emperor's Gunsmith." In *Art, Arms and Armour: An International Anthology*, edited by Robert Held. Vol. 1. Chiasso, Switzerland: Acquafresca Editrice, 1979. pp.201

¹⁵ Hayward, J.F. *The Art of the Gunmaker*. Vol. 1. 1500–1660. London: Barrie and Rockliff, 1962. p. 69.

near the straits of Gibraltar to mark the edge of the world and were marked with the warning NON PLVS ULTRA or “nothing farther beyond” Thus the pillars of Hercules accompanied by the symbol of the pillars of Hercules represent the ambition to do what was considered impossible. The saying, which rose to prominence in Spain During Charles V’s reign eventually was incorporated in the design of the Spanish dollar and served to encourage Spanish explorers to venture further than the known world, past the metaphorical pillars of Hercules. The rear wheel guard exhibits the double headed eagle emblem of the house of Habsburg, one of the most powerful and influential houses of Europe. Grancsay writes “The double-headed eagle reminds one that Charles V was not only Holy Roman Emperor but also King of Spain, of Naples, and of Sicily; the motto pointed to the new world beyond the Atlantic, a fabulous and wealth-producing domain that extended from Mexico and Lower California to the extreme tip of South America, over which the house of Austria, in right of the crown of Castile, claimed universal sway.”¹⁶

Charles V was not merely a recreational collector of firearms. He was both a soldier who fought every year of his reign from the age of 15¹⁷ and an avid and proficient huntsman. Grancsay describes an anecdote in which the Emperor “made a very long, successful shot with his rifle at a heron standing on the brink of the pond, a feat which the head of the order commemorated by erecting on the spot a column surmounted by a bronze effigy of the bird.”¹⁸ This passion is displayed in the staghorn engravings inlaid in the cherry wood stock of the weapon where the emperor is depicted in a hunting scene pursuing deer on horseback while

¹⁶ Grancsay, Stephen V. "A Wheellock Pistol Made for the Emperor Charles V." *The Metropolitan Museum of Art Bulletin* 6, no. 4 (1947) p.118

¹⁷ *ibid*

¹⁸ Grancsay, Stephen V. "A Wheellock Pistol Made for the Emperor Charles V." *The Metropolitan Museum of Art Bulletin* 6, no. 4 (1947) p.117

accompanied by hunting dogs (see figure 4). The white bone carvings used, starkly contrast with the dark wood in which they have been placed which strongly emphasises the scene of the hunting party and immediately draw the viewer's eye. The wood of the stock in which the bone was inlaid itself was carved in an elegant spiral which was "custom built to fit the emperor's hand"¹⁹ (see figure 4 and 5) while the right side of the firearm which houses the wheel lock firing mechanism was decorated with gold which was etched with sprawling patterns detailing swirling plants, flowers and birds. The intricate patterns which cover the gold surface of the gun including the moving parts like hammers and wheels are clearly a display of wealth and decadence worthy of an emperor.

the wheellock pistol made for Charles is a resplendent example of an early wheellock pistol and serves as a symbol of both the majesty and power of its owner; Charles V as well as the technological progress and artistry of the renaissance. The detailing and symbolism of the etchings used to decorate the weapon show the wealth and power of the emperor while the use of the Habsburg symbol and the phrase PLVS VLTRA are symbolic of the forward thinking mentality of the time and the vast power and influence held by him and his empire. The skill and the complexity of the mechanism of the firearm and the innovation shown by its maker; Peter Peck in both the rare and unusual features displayed in the firearm itself as well as the innovation shown in the makers other work display masterful skill and artistry and prove it to be representative of the technological prowess and innovative spirit of the renaissance.

¹⁹ Grancsay, Stephen V. "A Wheellock Pistol Made for the Emperor Charles V." *The Metropolitan Museum of Art Bulletin* 6, no. 4 (1947) p.120

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Illustrations



Figure 1 and figure 2: The Wheel covers from the wheellock mechanisms of the pistol. Left wheellock cover features the Hapsburg eagle, right wheellock features the motto of the emperor; PLVS VLTRA and the pillars of Hercules.

Taken from: Grancsay, Stephen V. "A Wheellock Pistol Made for the Emperor Charles V." *The Metropolitan Museum of Art Bulletin* 6, no. 4 (1947): 117-22.

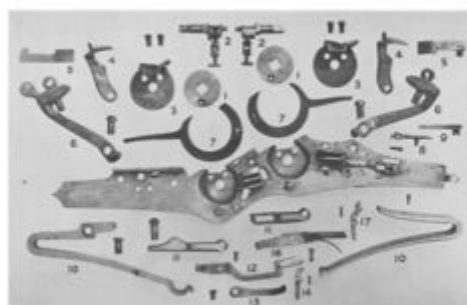


Figure 2: The disassembled lock plate of the pistol showing the working parts of the mechanism

Taken from: Grancsay, Stephen V. "A Wheellock Pistol Made for the Emperor Charles V." *The Metropolitan Museum of Art Bulletin* 6, no. 4 (1947): 117-22.

Illustrations (continued)



Figure 3: The upper barrel of the pistol, featuring the initial P of Peter Peck.

Taken from: Grancsay, Stephen V. "A Wheellock Pistol Made for the Emperor Charles V." *The Metropolitan Museum of Art Bulletin* 6, no. 4 (1947): 117-22.

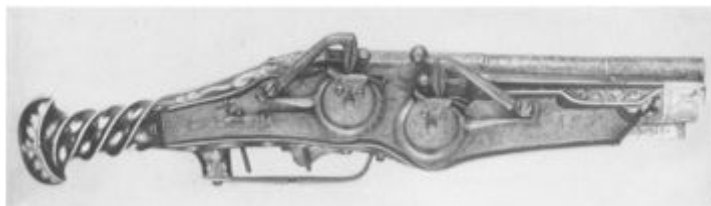


Figure 4: The double barrelled wheellock pistol made for Charles V by Peter peck.

Taken from: Grancsay, Stephen V. "A Wheellock Pistol Made for the Emperor Charles V." *The Metropolitan Museum of Art Bulletin* 6, no. 4 (1947): 117-22.

