

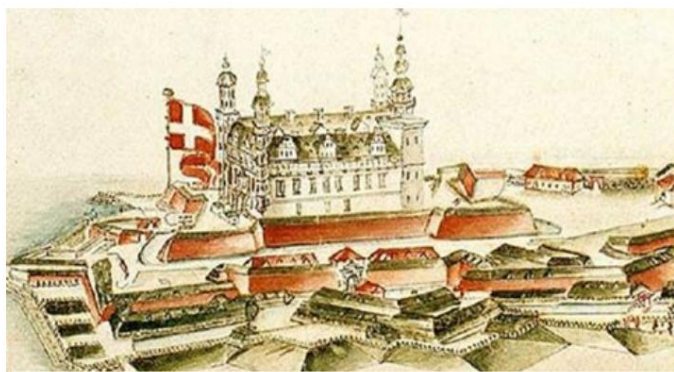
Kronborg's cannons



Kronborg Flag Bastion seen from the Queen's Tower

Most visitors to Kronborg, Frederik II's, Christian IV's and Hamlet's splendid renaissance castle, probably give only a fleeting thought to the fact that Kronborg is also an ancient fortress, even one of the country's strongest.

In Pontoppidan's Danish atlas from the 1760s, one could read that "Kronborg rightly passes for one of the strongest, most formidable and most beautiful fortresses in all of Europe. On the sea side, bastions are provided with rough protection - even with double cartovers 1, of which 2 named "Skagge" and "Bjørn", it is said to be able to reach Scania".



Kronborg Fortress

The latter is probably a mild exaggeration, as it was only at the end of the last century (1900s), when rifled breech-loading guns were obtained, that it was possible to shoot the 4 km across the Øresund at this location.



The flag bastion seen from Øresund

The Flag Bastion was the most important fortification on the lake side and the bastion from which Kronborg has been able to act as the strait's guardian and Denmark's border fortress to the northeast for the longest time.

From April 1811, the Danish flag has flown daily in the Flag Bastion from sunrise to sunset, whereas previously it was only hoisted when warships passed the fortress.

Since the Middle Ages, Dannebrog had been placed on ships. But on land it could only be used on Kronborg and Holmen.

In the 1600s and early 1800s, a Dannebrog field was included in the top corner of the army's banners and in 1785 Dannebrog was introduced as the banner of some Danish regiments, then in 1801 it became the banner of the national guard and finally in 1842 Dannebrog became the regimental banner of the entire army.

It was originally reserved for the King to use the Dannebrog, while it was forbidden for ordinary citizens. Despite this, people began to sew the Dannebrog flag themselves and hoist it on festive occasions. Then it was strictly prohibited by law in 1833.

But after the war 1848-50, the government believed that people had grown so much love for Dannebrog that the ban should be lifted, which it finally was on 2 August 1854

From ancient times, there is a tradition when a ship rounds Kronborg that it raises the flag in greeting, after which the flag is answered back with the raise from the Flag Bastion at Kronborg - this tradition was maintained by Kronborg's Garrison until 1922, when the garrison was disbanded, after which the task was taken over by the Army Kornet and Lieutenant School until 1975, when it moved to Oksbøl. Since that day, the flag has not been flown from the Flag Bastion at Kronborg and the last element of the Armed Forces left Kronborg in 1991, which was a requirement for Kronborg to even be included as a candidate for UNESCO's World Heritage List.

Occasionally, the old cannons also let their voices be heard, but now only on peaceful occasions, when salutes are fired on Queen Margrethe's birthday or when a new prince or princess is born in Denmark, as well as during the official passing of Royal Ships or foreign heads of state and during other special occasions apartments by special order requested by the Royal House.



For Kings and Queens the salute is 27 shots and for Princes and Princesses the salute is 21 shots.

The salute was previously carried out under the responsibility of the Garrison Commander, with technical assistance provided by the Garrison Weapons Mechanic and with operating personnel; initially from the Royal Life Guard but later these were replaced by personnel provided by the King's Artillery Regiment.

After several mergers and closures, the task of operating Kronborg's cannons is handled by the Danish Artillery Regiment.



Gjethuset Frederiksværk (Photo: Gjethuset)

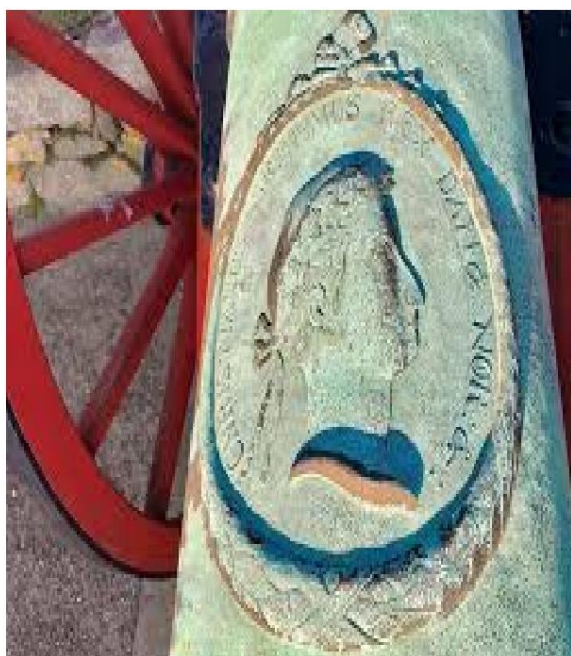
Kronborg's 27 cannons were all cast in bronze at the Frederiksværk cannon foundry Gjethuset in the period 1766-69, i.e. in the time of the famous Major General Classens2.

The reason why it was the Foundry in Frederiksværk that was given the task of casting the cannons must be found in the fact that the Foundry in Copenhagen at the time was busy casting the large equestrian statue of King Frederik V which today stands in the middle of Amalienborg Slotsplads.



Frederik V Equestrian Statue - Amalienborg Castle Square

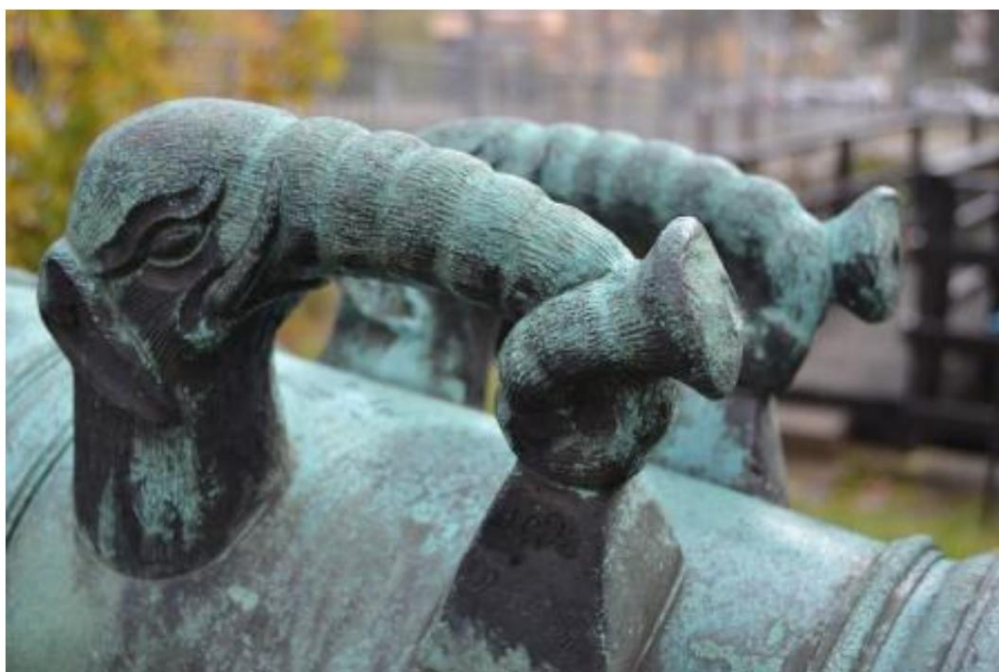
The cannons are adorned on the back with a picture of King Christian VII, where the king is depicted as a Roman triumphant



or less often with the king's "digit" C 7.



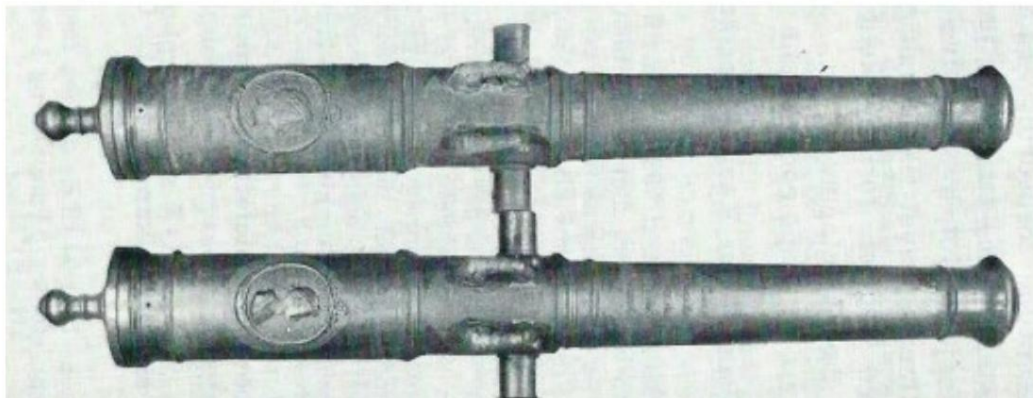
On the bottom frieze, the name FRIDRICS WÆRCK can be seen framed by the cannon's casting year
The handles are shaped like forward-facing elephant heads



The cannons' official designation is 12-pounder rifled metal cannons 1/1 goods (the first 5 guns on the bastion counted from the left wing are, however, 5/6 goods) of the system 1766 or Prince Charles of Hesse's system. The gun barrels weigh 3082 pounds (1/1 cargo) equivalent to 1541 kg and 2385 pounds (5/6 cargo) equivalent to 1193 kg.

And it required 8 men or 2 horses to maneuver around the cannons

That they are 12-pound means that the barrel is drilled so that it fits a massive iron ball weighing 12 pounds, corresponding to 6 kg.



At the top you can see 1/1 goods cannon barrel and at the bottom 5/6 goods cannon barrel

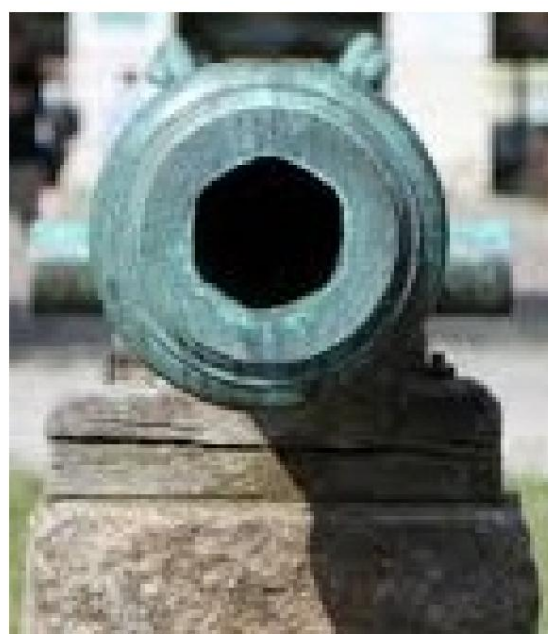
A total of 151 guns (75 5/6 and 76 1/1 goods) of this type were cast at Frederiksværk Gjethus.

(On a 1/1 barrel gun, the thickness at the chamber is equal to the caliber. On a 5/6 barrel gun, the thickness at the chamber is therefore 5/6 of the caliber. Only in weight and outer thickness do these two types differ.)

The cannons are leave-behind cannons and were originally cast smoothbore, but in order for the Danish army in the middle of the last century (1800-1900) to keep up with the technical development, e.g. the Danish guns drilled for rifling in 1861-62.

The rifling took place partly at "Gamst & Lunds Eftefølgers Etablissement" and partly at Frederiksværk Gjethus.

A total of 72 guns were submitted for rifling: 58 of these were approved as usable guns (38 1/1 and 20 5/6 gauge). The rest was discarded due to impurities in the metal. Of two 1/1 goods cannons that were attempted to be rammed, only one was approved.



With the rifling, the range of the guns was increased from approx. 1 ½ km to 3-4 km. Accuracy improved significantly and the guns were able to fire elongated projectiles weighing 27 pounds, equivalent to 13.5 kg, more than twice as heavy as the solid iron balls. This achieved a significantly greater effect in the target.

Of the originally cast 151 cannons, at least 48 are still preserved, divided into 27. at Kronborg, 5 pcs. at the War Museum (Tøjhusmuseet) 1 pc. on Holmen, 2 pcs. in Frederiksværk by the Gjethuset, 2 units. on the frigate "Jylland" in Ebeltoft, 7 pcs. at Akershus fortress near Oslo, 2 pcs. at Kongsvinger fortress in Norway and 2 pcs. in the Tower in London (*The Norwegians and the English are all smooth sailing*)

Kronborg's guns have, among other things, participated in the Schleswig wars - in 1848-50 mostly as a fortress guard. There were then 84 units. in Denmark.

Cannons of this type were - as newly rifled - in 1864 at Dannevirke, in the Dybbøl position, at Alssund, in Fredericia fortress and on some of the fleet's ships.

Of the guns placed in the Kronborg Flag Bastion, the following fought on board the navy's ships in 1864

No. 11 - No. 13 - No. 29 - No. 30 - No. 31 - No. 33 - No. 39 - No. 40 and No. 58



12-pounder deck cannon on the Frigate Jylland

Of this, **No. 13 and No. 29** on board the frigate "Jylland" during the battle at Heligoland on 9 May 1864, where the former fired 2 sharp shots. While the number of shots for the latter is not known, as the "Control book" belonging to the cannon (created during rifling 1861-62) is not available.

Both guns were in the corvette "Heimdal" 1879-86

No. 11 - No. 33 - No. 39 and No. 58 was on board the frigate "Tordenskjold" in 1864, where No. 33 on 14 April fired 3 sharp shots at enemy gunboats. On 24 April, they respectively fired 5, 9, 8 and 5 (in the above order) sharp shots at enemy gunboats and on 3 July - the same day as the war's last battle on land - the Battle of Lundby - the guns respectively fired 3, 3, 3 and 4 (in the above order) sharp shots in all at enemy gunboats in the Baltic Sea.

These four guns were also in the corvette "Heimdal" 1879-86

No. 30 - No. 31 and No. 40 were on board the frigate "Sjælland" in 1864 where on 17 March they fired respectively 23, 27 and 8 (in the above order) sharp shots "in Bataille with 2 Prussian corvettes and several smaller vessels"

On 31 March, Nr. 30 "1 shot at a Prussian Orlogs Steamer", and on 14 April they fired a total of 7, 8 and 3 (in the above order) sharp shots at a Prussian Orlogs Steamer in the Baltic.

No. 31 was on board the frigate "Tordenskjold" in 1871. No. 33 and No. 40 were on board the schooner "Fylla" 1875-76, and all three were on board the corvette "Heimdal" 1879-86

The following guns fought in Fredericia fortress in 1864.

No. 14 - No. 21 - No. 22 - No. 26 - No. 28 - No. 37 - No. 38 and No. 60

Of this shot **No. 14** on 20 March 10 sharp shots on an enemy battery at Fredericia. (It is this cannon that was approved after being rammed during the rifling).

About the other cannons, the "Control book" only states: "Present at Fredericia Tøjhus - number of shots until date unknown 27 March 1869"

No. 26 was picked up in Middelfart in 1879 for the corvette "Heimdal's" armouring. It remained on board this ship until 1886.

Until the Second World War, 14 of Kronborg's then inventory of 29 guns were placed in ramparts in the 5th Sea Battery, below the Flag Bastion and the rest in the Flag Bastion.



During the German occupation, all the cannons were stored in crates and after the liberation in 1945, when the cannons were brought to light again, there were no usable mounts for more than the 17 pamphlets that have since then formed the reinforcement in the Flag Bastion. The remaining cannon tubes remained stored in the case mat under the Flag Bastion until 7 May 1974, when 2 pcs. was handed over for installation on the frigate "Jylland". On this occasion, the remaining 10 cannon barrels were placed in magazines on cement plinths behind the parapet on the Courtinen between the Flag Bastion and Frederiks III's Bastion.

Of these 10 pcs. has the following no. 42 and No. 54 - like the two transferred to the frigate "Jylland" - fought on board the fleet's ships in 1864.

No. 42 was on board the frigate "Sjælland", where it "in battle with 2 Prussian corvettes and several smaller vessels" on 17 March fired 12 sharp shots and on 14 April it fired 3 shots at a Prussian Orlogs Steamer.

The cannon was in the frigate "Tordenskjold" 1871 and in the corvette "Heimdal" 1879-86

No. 54 was on board the frigate "Jylland", where it fired 29 sharp shots in the battle at Heligoland on 9 May 1864.

It was 1871, just like No. 42 on board the frigate "Tordenskjold" and on board the corvette "Heimdal" 1879-86.

This cannon was until 7 May 1974 placed in the rampart at the Flag Bastion, but due to severe wear and tear from the dungeon, it was replaced with No. 13 from the case mat.

The following guns fought in Fredericia fortress 1864:

No. 2 - No. 3 - No. 5 - No. 9 - No. 10 - No. 43 and No. 65

No. 2 fired 7 sharp shots on 20 March against an enemy battery at Fredericia. This cannon, like No. 1, which no longer exists, already rifled in 1861 and rifled according to the French system, after which in the same year it fired 161 shots for the "Commissionen for shooting with rifled gun" with loads of 2 $\frac{3}{4}$ (1,375kg), 2 $\frac{1}{2}$ (1,25 kg), 2 $\frac{3}{8}$ (1,188 kg) and 2 $\frac{1}{4}$ pounds (1,125 kg) and for the "Commission for shooting against masonry" 49 shots all with 2 $\frac{3}{8}$ pound charge which had been found to be the most appropriate charge.

The cannon bears the inscription: "SUB MINISTER COM DE SAINT GERMAIN GENERALISS REG" on the butt. General Classen refused to adorn the cannons with such inscriptions; but in 1766 the second-in-command of the artillery, General v. Huth³, an end to this desire. You therefore hardly see cannons cast after 1766 such ornaments.

No. 3 was rifled in the autumn of 1861 according to the Winstrup principle (improvement of the French system). With this pamphlet, 2 series of trial firings of 25 rounds were made under 3 degrees and 6 degrees of elevation with such good results that in December 1861 a complete loading of the cannon was carried out at 275 rounds with a 2 $\frac{3}{8}$ pound charge and with a projectile of 27 pounds . This meant that the Winstrup principle (named after the Danish mechanic Peter Joseph Winstrup⁴ (1814-1880)) was used for the rifling of all other bronze cannons.

No. 9 bears a special bust of King Christian VII. This may be due to the fact that this cannon belongs to the first two cast, and that the image there is actually of King Frederik V, who died on 14 January 1766 while the first two cannons were being shaped at Frederiksværk.



Is this really Frederik V?

This theory is strengthened by the fact that the cannon on the end face of the right pin bears the inscription: "Cast No. 2 - 1 March 1766". The cannon has a counterpart at Akershus fortress near OSLO. This must then be presumed to be cast son No. 1.

These two cannons both have the inscription: "CAROLUS PRINC LANDGRAV HASSIÆ CASS SUMM RER TORMENT DUX" placed on the forend.

No. 5 shots on 21 March 1864 - 4 sharp shots during the "Bombardment at Fredericia". Due to certain impurities in the metal, this cannon, like Nr. 9, No. 10, No. 14 and No. 21 under the rifling characterized as a class B gun.

No. 10 shots on 20 March 1864 - 10 sharp shots at enemy battery at Fredericia

No. 65 fired on 21 March 1864 -8 sharp shots during the "Bombardment at Fredericia".

No. 24 is not seen to have taken part in battles in 1864 - From June 1865 to May 1872 it was handed over from "Kjøbenhavns Tøihuus" to the Artillery Regiment, during which period it fired a total of 174 sharp shots during practice firings at various artillery units.

The cannons have all been placed at Kronborg from 2 February 1900, but nothing speaks against the fact that they may have belonged to Kronborg's equipment before they were drilled in 1861-62.

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But some of Kronborg's cannons have since found new homes, including the Danish Artillery Regiment's landmark and a couple of the cannons on the Kastellet in Copenhagen.

The Red Cannons

2 of the 10 cannon barrels placed in magazines on cement plinths behind the parapet on the Courtinen between the Flag Bastion and Frederiks III's Bastion were handed over to the Artillery's 300th anniversary on 7 August 1984 for placement outside the Skive Kaserne guard building

The cannons were on the initiative of the Regiment's deputy commander, lieutenant colonel PEØ. Sørensen, placed in reconstructed, period-original garrison or fortress lavettes from the end of the 18th century, built in the regimental workshop according to an original drawing from the Textile Museum.



Photo Army Combat & Fire Support Center Oksbøl

The vans are painted in the Oldenburg colours, with red being the predominant colour, and therefore the cannons are called "The Red Cannons".

When the artillery from Skive moved to Varde in 2000, the guns were moved from the entrance to a less prominent place at Skive Barracks. The cannons were picked up in Skive in 2003 and when they came to Varde, they needed major refurbishment.

In his speech at the inauguration on 2 Dec. In 2005, the commander of the Danish Artillery Regiment, Colonel WP Kahle, said - We believe and hope that "The Red Cannons" have now found their final location. But after 9 years and further decommissioning of the artillery, the cannons were moved to Oksbøl in 2014, where they stand today as a landmark for the Danish Artillery Regiment

The castle in Copenhagen

In connection with the re-establishment of the Princess's Bastion at the Kastellet in Copenhagen, 3 of the remaining cannon barrels from the Courtinen at Kronborg were transferred to the Kastellet

It concerns serial number No. 2, No. 3 and No. 42 (after dismantling)



12-pounder cannon on the Kastellet

The Princess's Bastion facing Øresund was originally the Kastellet's flag bastion, where the Kastellet's official flag flew, and until 1788 it was transferred to Holmen, where it still flies from the Battery Sixtus opposite the Kastellet, it was also the "Flag of the Kingdom" like all foreign ships had to salute to show the Danish king his respect.

LEK

TO NOTE:

1) Cards

Kartove is a term from the 16th century for coarse-caliber metal cannons with a relatively short barrel (length). Commonly, they were divided into double carts (48 pounds) and 1/1 carts (24 pounds).

The word comes from Middle Low German kartouwe or Dutch kartouw, from Italian cortana, or Medieval Latin quartana, basic meaning '25-pound cannon (which is about one-fourth the size of a 100-pounder)', to Latin quartus 'fourth'

2) Major General Johan Frederik Classen (1725-92)



Johan Frederik Classen was the son of the court organist in Kristiania (Oslo), JF Classen, and became a student at the Cathedral School in 1741. He became a cand. theol. in 1744, just 19 years old.

Instead of the priesthood, he settled on trade, especially arms trade from the Moss cannon foundry in Norway. In 1754 he built a factory for earthenware stoves at Østerport on a large plot of land where he had acquired a pleasure garden (now Classens Have).

Two years later, he received, as a gift from King Frederik V, a derelict cannon center at Arresø, which he built up into a gunpowder factory and cannon foundry within a few years, along with the creation of an entire factory town, Frederiksværk.

3) Heinrich Wilhelm von Huth (1717-1806)



Heinrich Wilhelm von Huth was the son of a secretary, went to high school in Schleusingen and studied mathematics at the University of Leipzig. Entered the military, advanced to colonel, took part in several campaigns from 1742, as lieutenant colonel commanded a brigade of heavy artillery in the Battle of Minden 1759, thereby contributing to the victory over the French.

He rose through the ranks, became a major general and commander of the engineer corps, took part in the rest of the Seven Years' War, entered the Hessian war service after the peace and became

kommandant to Hanau.

Here he met Prince Carl of Hesse, mentored him in military science and, despite an age difference of almost 30 years, they developed a relationship of trust, which was the reason for von Huth to come to Denmark. He became lieutenant general of the infantry in Danish service in 1765 and in 1771 commander of the Artillery Corps and the Engineer Corps and improved the officers' training and the entire organization and business of the corps.

4) Peter Joseph Winstrup (1814-1880)



Mechanic Peter Joseph Winstrup had studied at Polytechnic Institute.

He was manager and from 1854 co-owner of the machine factory H. Gamst & HC Lund, and over time took out several important patents, including on an improved cannon rifling.