



Section 2 French Ordnance (1550-1789)

Below is an outline of the gun tubes, carriages and limbers that operated together by years. *Calibre length* is defined as the length from muzzle to base ring divided by shot diameter. The *Tube length* is from the muzzle to base ring.

References

- Adye RW & Eliot WG (1813 rp 2010) *The Bombardier and Pocket Gunner*, 7th Edition, Ken Trotman Publishing [Reprint with new introduction by Dr Stephen Summerfield]
- Alder K. (1997) *Engineering the Revolution: Arms and Enlightenment in France 1763/1815*, Princeton University.
- Caruana (1992)
- Dawson A.L., Dawson P.L. and Summerfield S. (2007) *Napoleonic Artillery*, Crowood Press
- Dawson P.L. & Summerfield S. (2008) *French Artillery to 1824: Gribeauval, AnXI System and Drill Manual*, DP&G
- Decker M. (1994) *Les Canons de Valmy: Catalogue de l'Exposition tenue au Musée de l'Armée*, Paris
- Diderot, D. and d'Alembert, Jean (1751-) *Encyclopedie or dictionnaire raisonne des sciences, des arts et metiers*, Various volumes, Paris.
- Fave I. (1871) *Etudes sur le Passe et l'Avenir de l'Artillerie*, Paris, Volume IV
- Graves D. (1800 rp 1984) *Otto de Scheel's Treatise on Artillery*, Museum Restoration Service, Canada
- Hennebert E.
- (1887) *L'Artillerie*, Paris
 - (1896) *Revue d'Artillerie*, 47, pp598-62
- Jobe (1971)
- Lefroy (1864)
- Manson J.C. (1792), *Tables de Construction de Principaux Attirails de l'Artillerie propose au approuvées depuis 1764 jusque en 1789 par M. de Gribeauval*, 3 Volumes, Paris
- Passac, Chevalier de (1816) "Précis sur M. de Gribeauval" In (May 1889), *Revue D'Artillerie*, pp96-120.
- Percy N. (1832 rp 1972) *Elementary Treatise on the forms of Cannons and various Systems of Artillery*, Museum Restoration Service, Canada.
- Picard E and Jouan L (1906) *L'Artillerie Française au 18eme Siècle* Paris
- Rogers (1971)
- Rogge, Christian and Digby Smith (2012) "French Artillery Valliere System," *Seven Years' War Project*, www.kronostaf.com [Accessed 12/6/2012]
- Rouquerol G. (1895) *Artillerie au Début de les Guerres de Révolution*, Berger-Levrault, Paris
- de St. Remy, P Surirey
- (1697) *Aide Memoire d'Artilerie*, 1st Edition, Paris
 - (1707) *Aide Memoire d'Artilerie*, 2nd Edition, Volume I-II, Paris
 - (1745) *Aide Memoire d'Artilerie*, 3rd Edition, Volume I-III, Paris

de Scheel, Otto (1795) *Memoires d'artillerie, contenant l'artillerie nouvelle or les changemens faits dans l'artillerie francois en 1765*, 2nd edition, Paris.

Smith, Digby

- [Translator] (August 2010) "Wurzbach's Biography of Jean Baptist Viscomte de Gribeauval (1715-1789)," *Smoothbore Ordnance Journal*, 1 (03) 58-64
- [Translator] (Dec 2010) "Gribeauval's Objection toward Regimental Artillery," *Smoothbore Ordnance Journal*, Issue 2 (05) 57-59

Summerfield S.

- (Nov 2009) "French AnXI ordnance 1803-15," *NGA Ordnance*, 1(04)
- (2009) *Saxon Artillery 1733-1827*, Partizan Press
- (2011) "Part 1: Summary of Gribeauval's Life," *Smoothbore Ordnance Journal*, 2 (01)
- (2011) "Part 2: Gribeauval in France before the Seven Years War (1715-57)," *Smoothbore Ordnance Journal*, 2 (02)
- (2011) "Part 3: Gribeauval in Austrian Service (1758-62)," *Smoothbore Ordnance Journal*, 2 (03)
- (2011) "Part 4: Gribeauval Garrison Carriage," *Smoothbore Ordnance Journal*, 2(04)
- (2011) *Austrian Seven Years War Infantry and Engineers Uniforms, Organisation and Equipment*, Ken Trotman Publishing.
- (2011) *Austrian Seven Years War Cavalry and Artillery: Uniforms, Organisation and Equipment*, Ken Trotman Publishing.
- (2011) *Saxon Army of the War of Austrian Succession and the Seven Years War, Uniforms, Organisation and Equipment*, Ken Trotman Publishing.

Vial, Jean-Louis (2012) "French Artillery à la Suédoise", *Seven Years' War Project*, www.kronoskaf.com [Accessed 12/6/2012].

De Tousard, Louis (1809) *The Artillerists Companion*, Volume I-III, Philadelphia.



SOJ-4(06) Calibres de France (1550-1625)

Stephen Summerfield of Loughborough University

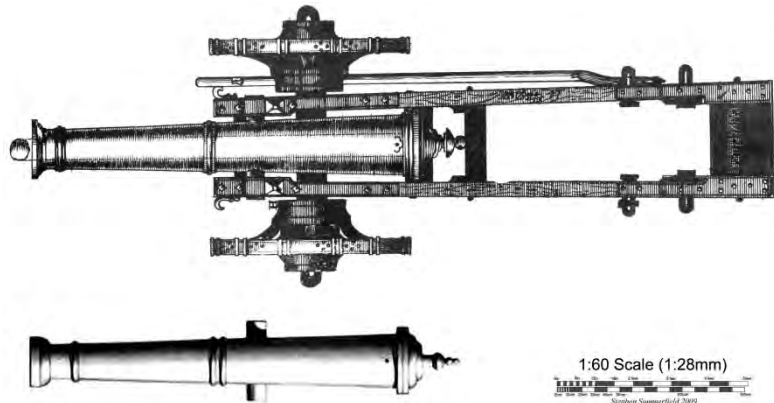
1550

Henry II of France (r. 1547-59) attempted to regularise the ordnance into six “*Calibres de France*”.²² This followed England who had standardized their calibers in 1537 with Henry VIII holding pattern models for guns.²³ The horses were directly to the trail by a *limoniere* instead of the later limbers. The horses were harnessed in double file in front of the wheel horse. It is interesting that by the 19th century the weight of the *Canon de France* (8420 *livre*) was pulled by only eight horses instead of 25.²⁴

M1550 Le Canon/Canon de France

The 33-pdr caste from c1520 and received the designation of 33-pdr in 1665. This was the father of the 33-pdr used until 1744.

- 170mm, 320cm long (17 calibres), 2500kg and 165:1. The carriage had 458cm long cheeks. *Limoniere* to which 21 horses were attached.²⁵
- 180mm, 325cm long (18 calibres), 5150 *livre* and 155:1.²⁶
- Weighed 5000 *livre* and 153:1. Carriage weight 3420 *livre* and total weight 8420 *livre*. *Limoniere* to which 25 horses were attached. Gunpowder charge of 20 *livre* and 0.60:1.²⁷



Bronze culverine of Francis I, c1550 [Musee de l'Armee]

²² Rogers (1971) 34-5; Decker (1994: 148) quoting “Memoires pour l’artillerie et pour la ponder” date about 1551.

²³ Caruana (1992) 7

²⁴ See illustration in Jobe (1971) 56

²⁵ 1:6 scale model made by Colonel Robert in 1882 from Vasselieu manuscript of 1574 [Paris (1992) O22 and Paris (1976) N75; Decker (1994) 37]

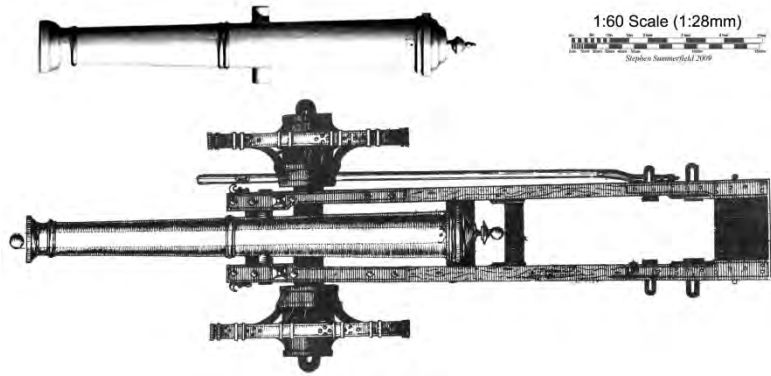
²⁶ St Remy (1707) II: 57-60 and 207

²⁷ Jobe (1971: 57) quoting from Captain Vasselieu (1574) *Treatise on Artillery*.

M1550 Le Culverine/Grande Coulverine/ Great Culverin

Received the designation 16-pdr in 1661 and was the father of the Long 16-pdrs used until 1827.

- 134mm, 357cm (27 calibres), 3700 *livre* and 227:1.²⁸
- Weighed 3550 *livre* and 234:1. Carriage weight 2830 *livre* and total weight 6380 *livre*. Limoniere to which 21 horses were attached. Gunpowder charge of 10 *livre* and 0.66:1.²⁹

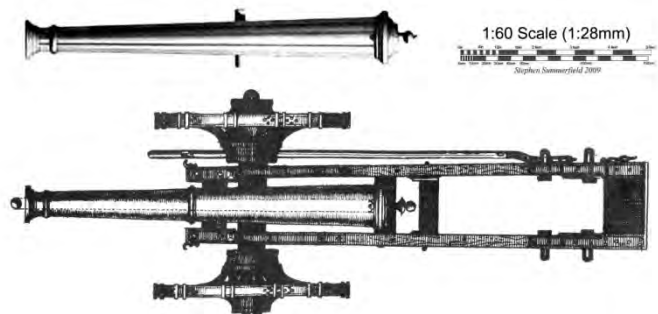


French Bastard Culverin of 85mm, 300cm long and 1076kg constructed in 1548 had the crescent of Diane below the coat of arms of Henri II and Catherine de Medicis.

M1550 La Batarde/Coulverine Batarde/ Bastard Culverine

7-pdr calibre and was in use 1508-1671 when it was replaced by the 8-pdr.

- 100mm, 290cm (28 calibres) long, 1200kg and 340:1 The carriage was 380cm and weighed 1300kg. Total weight of the piece was about 2300kg. The *Limoniere* was drawn by eleven horses.³⁰
- 100mm, 309cm (31 calibres) long, 1850 *livre* and 247:1.³¹
- Weighed 2500 *livre* and 344:1. Carriage weight 2273 *livre* and total weight 4773 *livre*. *Limoniere* to which thirteen horses were attached. Gunpowder charge of 5 *livre* and 0.69:1.³²
- Two *La Batarde* in the Musee de l'Armee, Paris.³³



²⁸ St Remy (1707) II: 57-60 and 207

²⁹ Jobe (1971: 57) quoting from Captain Vasselieu (1574) treatise on artillery.

³⁰ 1:6 scale model made by Colonel Robert in 1882 from the Vasselieu manuscript of 1574 [O24: Decker (1994) 37]

³¹ St Remy (1707) II: 57-60 and 207

³² Jobe (1971: 57) quoting from Captain Vasselieu (1574) treatise on artillery.

M1550 La Moyenne/Coulverine Moyenne/Medium Culverine

2½-pdr (1.5kg) was in service from 1470 and was father to the Long 4-pdr that served until about 1792.

- Cast in the reign of Francis I (1515-1547) was 75mm, 274cm (36 calibres), 610kg and 244:1.³⁴
- 75mm, 260cm (33 calibres), 750kg and 500:1. The carriage length was 360cm and the total weight of the piece was 1250kg. The *Limoniere* drawn by four horses.³⁵
- *La Moyenne* cast in 1549 in the Musee de l'Armee, Paris.³⁶
- 75mm, 276cm (37 calibres), 650livre and 260:1.³⁷
- Weighed 1500 *livre* and 600:1. Carriage weight 1075 *livre* and total weight 2,575 *livre*. *Limoniere* to which seven horses were attached. Gunpowder charge of 2.5 *livre* and 1:1.³⁸

M1550 Le Faucon/ Falcon

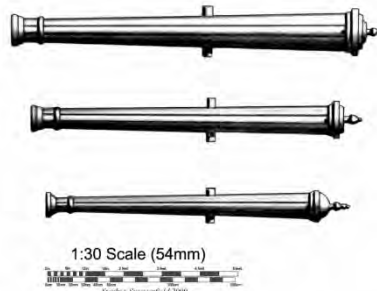
1½-pdr fired a iron ball of 1½ *livres* (0.7kg) or a lead ball of 2½ *livres* (1.2kg) was used from middle of the 16th to the 17th century.

- 56mm calibre, 198cm (35 calibres) long.³⁹
- 60mm calibre, 7 *pieds* / 230cm (37 calibres), 320kg and 420:1. The carriage was 3m long and the total weight of the piece was about 600kg. The *limoniere* was drawn by three horses.⁴⁰
- Falcon cast in 1549, Musee de l'Armee.⁴¹
- 60mm, 244cm (41 calibres) long, 650 *livre* and 433:1.⁴²
- Weighed 800 *livre* and 536:1. Carriage weight 440 *livre* and total weight 1240 *livre*. *Limoniere* to which seven horses were attached. Gunpowder charge of 1.5 *livre* and 1:1.⁴³

M1550 Le Faucaneau / Falconette

¾-pdr fire either 0.875 *livre* (0.4kg) iron or 1.25 *livre* (0.6kg) lead shot was used from middle of the 16th to the 17th century.

- 50mm, 6 *pieds* / 2m (38 calibres), 220kg and 500:1.⁴⁴
- 40mm, 6'6", 350 *livre* and 467:1 was drawn by three horses.⁴⁵
- Total weight 880 *livre*. Gunpowder charge of 1.5 *livre* and 1.33:1.⁴⁶
- French manufacture c1510 had a 32mm caibre, 106cm long, weighed 25kg and fired an iron ball.



M1550 La Moyenne / Coulverine Moyenne / Medium Culverine
M1550 Le Faucaneau / Falconette
M1550 Le Faucon / Falcon
[After Fave (1862) III: Pate 39]

³³ N77 and N82 [Decker (1994) 37]

³⁴ Musee de l'Armee, Paris [Jobe (1971) 206]

³⁵ 1:6 scale model by Colonel Robert in 1882 from the Vasselieu manuscript of 1574 [O25: Decker (1994) 38]

³⁶ N94 (1548) Decker (1994) 38

³⁷ St Remy (1707) II: 57-60 and 207

³⁸ Jobe (1971: 57) quoting from Captain Vasselieu (1574) treatise on artillery.

³⁹ Outside the church of St Louis, Le Invalides, Paris [Jobe (1971) 206]

⁴⁰ 1:6 scale model by Colonel Robert in 1882 from the Vasselieu manuscript of 1574 [O26: Decker (1994) 38]

⁴¹ N94 [Decker (1994) 38.

⁴² St Remy (1707) II: 57-60 and 207

⁴³ Jobe (1971: 57) quoting from Captain Vasselieu (1574) treatise on artillery.

⁴⁴ 1:6 scale model by Colonel Robert in 1882 from the Vasselieu manuscript of 1574 [O27: Decker (1994) 36]

⁴⁵ St Remy (1707) II: 57-60 and 207

⁴⁶ Jobe (1971: 57) quoting from Captain Vasselieu (1574) treatise on artillery.

M1550 Arquebus a Croc / Harquebus

Fired a 50g lead shot of 10 to 1 *livre* were used from the 2nd and 3rd quarter of the 16th century. This was the father of the rampart guns that were used until 1882.

- 20mm, 3 *pieds* /1m (50 calibres) and 17kg mounted on a carriage.⁴⁷
- Weighed 45 *livre*. Wooden stock 5 *livre* and total weight 50 *livre*. Gunpowder charge of 1 *onze* and 1:1.⁴⁸

1626 Dutch Calibres

The 12-pdr was adopted from Holland and became a French calibre.⁴⁹ These were referred to as the Spanish calibers by the French.

- Cast in 1627, 120mm, 228cm (18 calibres) long, 1270kg and 210:1. The carriage was 309cm long and was drawn by a limber⁵⁰.
- Cast in 1628 by Johannis Antoniszoon in La Haye, 124mm, 228cm (17.5 calibres) long, 1300kg and 220:1. The carriage was 309cm long and was drawn by a limber.⁵¹

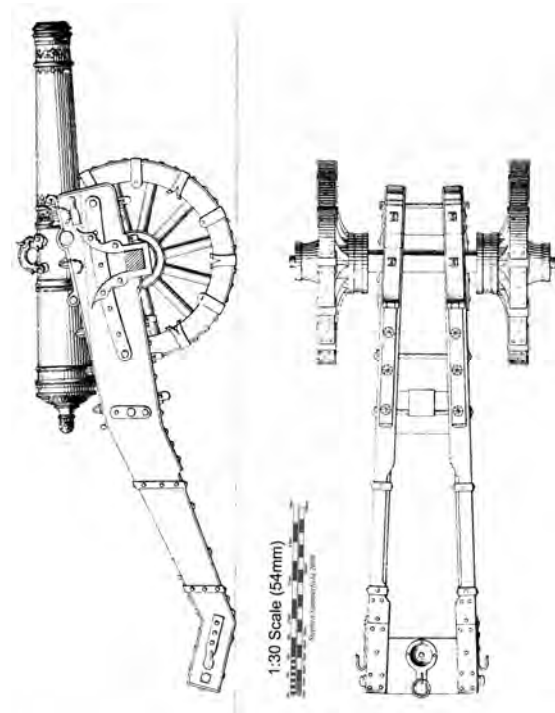
First Amendment to the Calibres de France

1636

The French first described their artillery by weight of shot⁵² influenced by the current Dutch practice introduced by **Maurice of Nassau** (1567-1625)⁵³ in 1599.

1638

The calibers were reduced to 33-, 24-, 16-, 12-, 8- and 4-pdr. This was influenced by their experience in the Netherlands (1625-28). The *Faucons* and *Fauconneau* were withdrawn from service. On campaign, the 4- and 8-pdr dominated as field pieces. The 12- and 24-pdr were formerly introduced into the *Calibres de France*.



Plans of the Dutch 12-pdr of 1626 [After Fave]

⁴⁷ 1:6 scale model by Colonel Robert in 1882 from the Vasselieu manuscript of 1574 [O28: Decker (1994) 36]

⁴⁸ Jobe (1971: 57) quoting from Captain Vasselieu (1574) treatise on artillery.

⁴⁹ Decker (1994) 39

⁵⁰ 1:6 scale model [Paris (1992) 12845: Decker (1994) 39]

⁵¹ 1:6 scale model [Paris (1992) 12845: Decker (1994) 39]

⁵² Decker (1994) 148

⁵³ **Maurice of Nassau** [Dutch: *Maurits van Nassau*] (1567-1625) was appointed president of the council of state that became the Republic of the United Provinces in 1584, the same year in which his father, William the Silent was assassinated. In 1587, he became *Stadholder* and Captain-General of the Dutch forces. He introduced reforms to the army, reorganised the logistics, split the tercios into smaller battalions of 580 men, introduced a drill and discipline that became the model for most European Armies. In 1599, he reduced the ordnance calibres to four [6-, 12-, 24- and 48-pdr], introduced limbers (probably from the Spanish). He was Prince of Orange (1618–25).



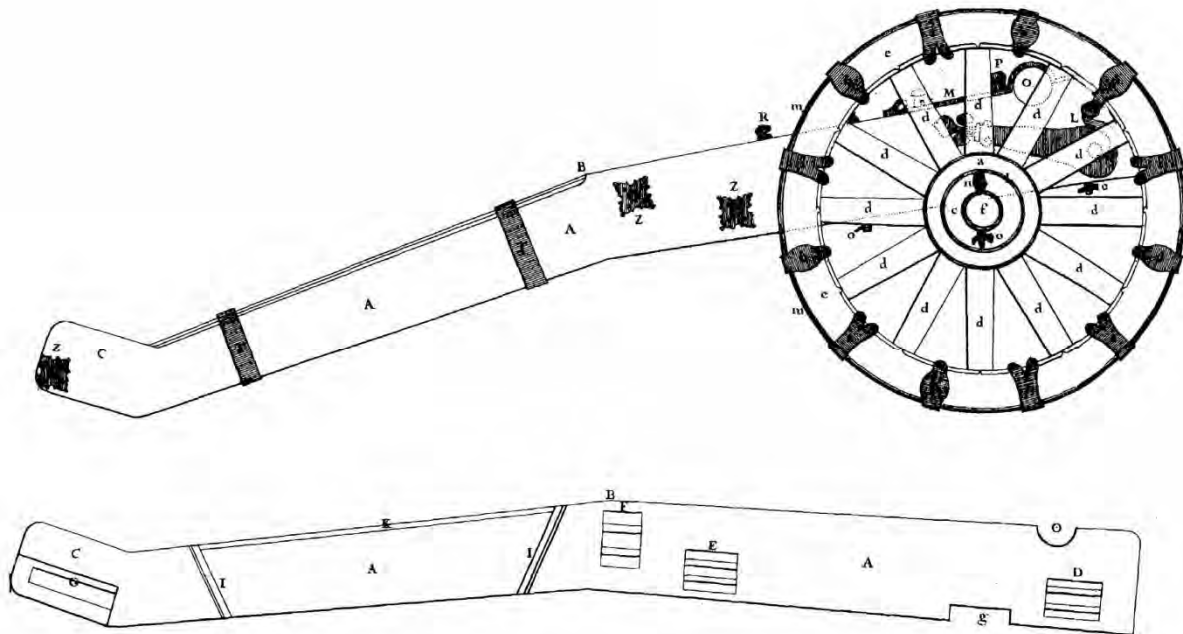
SOJ-4(07)

The Six *Calibre de France* (1661-1731)

Stephen Summerfield of Loughborough University

1661 “Canon a la ancienne maniere” [Old Design]

The principle behind the “*Calibre de France*” was that every piece would have the same length so that they could serve at the same embrasure. This caused the weight ratio and the caliber length to increase with reducing shot weight. French ordnance still suffered from a lack of standardization. The common complaint was that ammunition from one department would not fit a piece from another department. The dimensions and weights also varied greatly within let alone between foundries and department. The ten calibers of the canon a la ancienne maniere were 60-, 48-, 33-, 24-, 16-, 12-, 8-, 4-, 2- and 1-pdr. The carriages of the 33- to 4-pdr are shown in St Remy (1697).⁵⁴

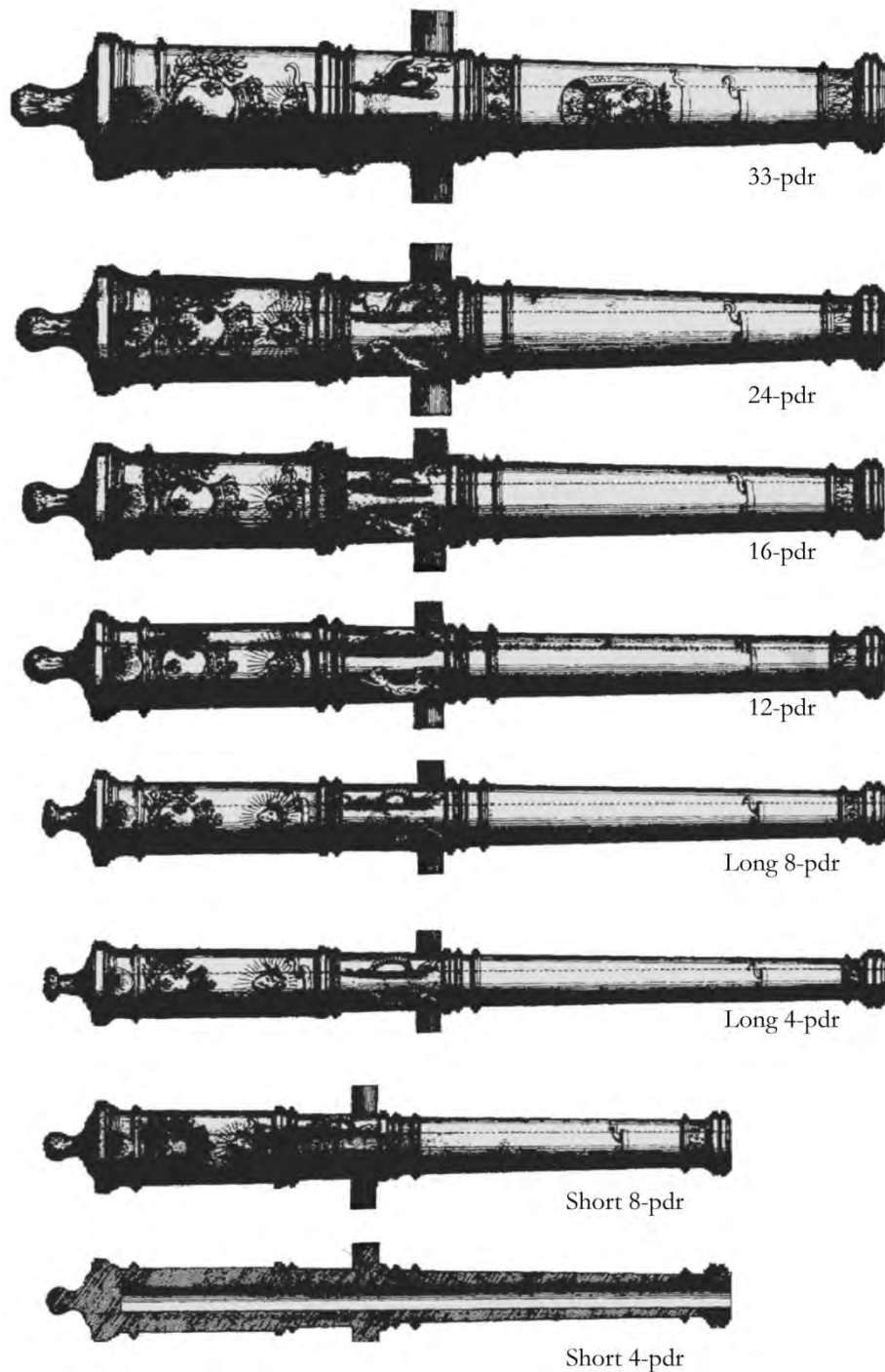


M1661 24-pdr Carriage [St Remy 1697]

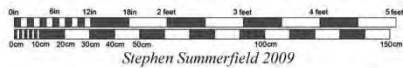
The cannon were characterised with the first reinforce at 2/7th, second reinforce at 1/7th and the chase being 4/7th long. The cascable and trunnion diameter was 1 calibre. The trunnions were placed half pouce (13.5mm) from the end of the second reinforce and the dolphins were at the centre of gravity. The charge was equal to two thirds the weight of the shot.⁵⁵

⁵⁴ St Remy (1707) I: 59, 61 & 148

⁵⁵ Persy (1832) 6-7



1:30 Scale



Stephen Summerfield 2009

M1661 "Calibre de France"

[After St Remy (1707)]

French Pieces

Bassinot [48-pdr] throwing a 48 *livre* ball

- “*Canon aux armes du dauphin de France*” 1/6 Scale Model by W.H. Heroldt of Nuremberg made in 1663 [Musee de l’Armee]. Calibre 195mm, 334cm long (16 calibres), 4100kg and 175:1. The carriage was 478cm long.⁵⁶

Le Canon de France [33-pdr] throwing a 33 *livre* ball

- 6200 *livres*;
- “*Canon aux armes du dauphin de France*” 1/6 Scale Model by W.H. Heroldt of Nuremberg made in 1663 [Musee de l’Armee]. Calibre 170mm, 316cm long (17 calibres), 2800kg and 175:1. The carriage was 427cm long.⁵⁷

Le Demi Canon de France [16-pdr] throwing a 16 *livre* ball

- 4100 *livres*

Le Quart de Canon de France / La Bâtarde [8-pdr] throwing an 8 *livre* ball

- 1950 *livres*
- “*Canon aux armes du dauphin de France*” 1/6 Scale Model by W.H. Heroldt of Nuremberg made in 1663 [Musee de l’Armee]. Calibre 105mm, 256cm long (23 calibres), 895kg and 230:1. The carriage was 338cm long.⁵⁸

Minion [4-pdr] throwing a 4 *livres* ball

Spanish Pieces

Le Cannon d’Espagne [24-pdr] throwing a 24 *livre* ball

- 5100 *livres*;
- “*Canon aux armes de France et du duc de Mazarin*” 1/6 Scale Model in the Musee de l’Armee. Calibre 155mm, 325cm long (20 calibres) and 2590kg. The carriage was 423cm long. The ancestor of the M1732 Vallière 24-pdr.⁵⁹
- “*Canon aux armes du dauphin de France*” 1/6 Scale Model by W.H. Heroldt of Nuremberg made in 1663 [Musee de l’Armee]. Calibre 150mm, 300cm long (18 calibres), 2140kg and 180:1. The carriage was 427cm long.⁶⁰

Le Quart de Canon d’Espagne [12-pdr] throwing a 12 *livre* ball

- 3400 *livres*;
- “*Canon aux armes du dauphin de France*” 1/6 Scale Model by W.H. Heroldt of Nuremberg made in 1663 [Musee de l’Armee]. Calibre 125mm, 327cm long (25 calibres) and 1090kg. The carriage was 422cm long.⁶¹
- “*Canon aux armes du dauphin de France*” 1/6 Scale Model by W.H. Heroldt of Nuremberg made in 1663 [Musee de l’Armee]. Calibre 125mm, 327cm long (25 calibres), 1090kg and 180:1. The carriage was 427cm long.⁶²

⁵⁶ O.33/1 [Decker (1994) 50]

⁵⁷ O.31/1 [Decker (1994) 49]

⁵⁸ O.37/2 [Decker (1994) 48]

⁵⁹ O.51 / O.214 [Decker (1994) 48]

⁶⁰ O.36/1 [Decker (1994) 49]

⁶¹ O.35/2 [Decker (1994) 49]

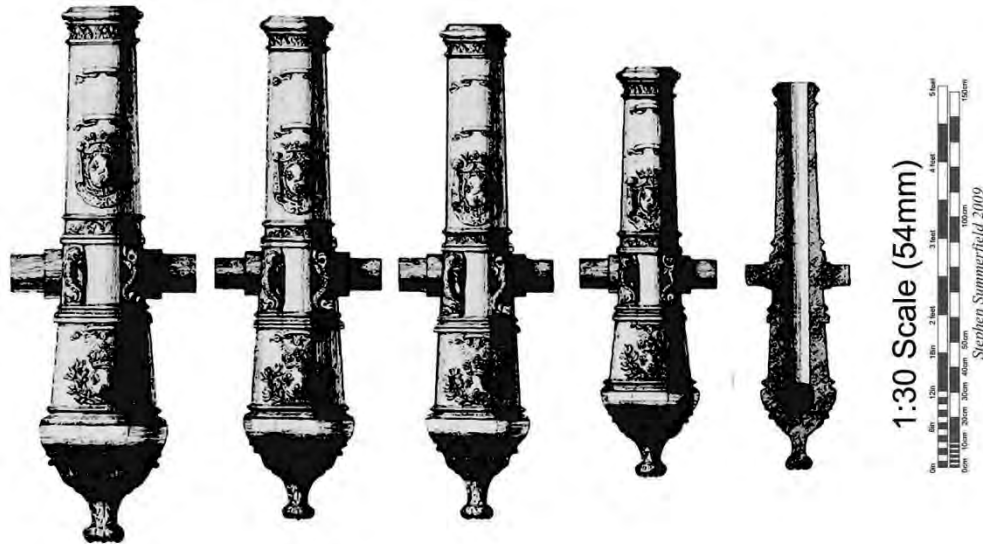
⁶² O.31/1 [Decker (1994) 49]

M1680 “New Design”

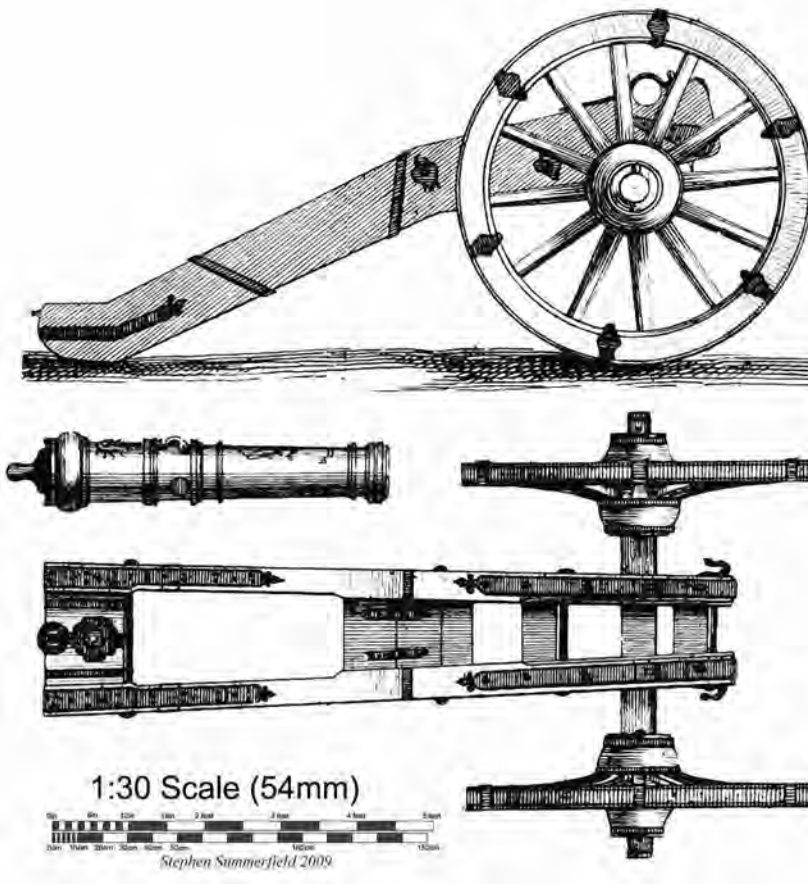
New design of pieces was introduced in 1680 by Duc de Maine. These 13-17 calibres long with oval chambers were cast in Douai.⁶³

Canon de 24 “*de la nouvelle invention*”

- 1/4 Scale Model in the Musee de l’Armee. Calibre 153mm, 181cm long (11.8 calibres), 11.8kg ball, 4kg charge in spherical chamber and 1665kg. The carriage was 408cm long.⁶⁴



M1680 24-, 16-, 12-, 8- and 4-pdr Duc du Maine “*de la nouvelle invention*”
[After St Remy (1707) I: Plate 2]



M1680 8-pdr “*a la nouvelle invention*”
[St Remy (1707) Volume I]

1684

Marquis Francois de la Freseliere, *Lieutenant-General de l’Artillerie* reported that 6 out of the 10 new type mortars failed proof and 10 of the 30 old type mortars failed proof.

⁶³ St Remy (1707) I: 60-61 and Plate 2.

⁶⁴ O.45 [Decker (1994) 51]

M1685 Type Douai

In 1669, The Keller brothers set up the foundry in the Abbey of St Salpice in Douai⁶⁵ and in 1674, they became naturalised Frenchmen.

It was the custom in France for the barrels to bear the Arms of the Grand Master of the Artillery thus all cannon cast for the French artillery 1694-1712 bore the Arms of Louis Auguste de Bourbon, Duc du Maine⁶⁶ which were the Royal Arms of France, three gold lilies differenced by a illegitimacy bar. The first reinforce had the sun with the motto *Nec pluribus impar* and the Arms of France encircled by palm branches, under a royal crown. The chase of the 12-, 16- and 24-pdrs had a ribbon with the motto "*Ratio Ultima Regum*," another ribbon had the the title Louis-Auguste de Bourbon, duc du Maine and the Arms of France surrounded by two collars under a ducal crown. The 4- and 8-pdrs did not have this the decoration on the chase.

Canon de 24 "à l'ancienne manière"



French 24-pdr cast by Keller in 1683 [Musée de l'Armée, Paris]

- "*Canon du type Douai 1685*" 1/6 Scale Model in the Musée de l'Armée. Calibre 153mm, 323cm long (20 calibres) and 2810kg. The carriage was 455cm long. In service 1660-1775. Ancestor of the M1732 Vallière 24-pdr.⁶⁷
- Two 24-pdrs cast in 1706 and 1720.⁶⁸

⁶⁵ In 1667, Louis XIV captured the Douai on the Scarpe River before it joins the Scheldt in Flanders from Spain after a five day siege and remained in possession by the Treaty of Aix-la-Chapelle. This was confirmed by the Peace of Utrecht (1713). The area became part of the Nord Department of French Flanders (Northern France).

⁶⁶ Louis Auguste de Bourbon, Duc du Maine (1670–1736) was an illegitimate son of King Louis XIV of France (1638–1715) and his mistress, Françoise Athénaïs de Rochechouart de Mortemart, Marquise de Montespan (1641–1707). In 1673, he was legitimised by his father and came to live at Court the next year. He was *Colonel-Général des Régiments des Suisses et Grisons* (1674-1710). Became Prince de Dombes and Comte d'Eu (1681), governor of the Province of Languedoc (1682), Duc d'Aumale (1686), admitted to the Order of the Holy Spirit (1686). In 1688 he was appointed General of the Galleys and Lieutenant-General (1688), Grand Master of the Artillery (1694-1712).

⁶⁷ O.61 [Decker (1994) 47]

⁶⁸ N.99 (1706)/N.102 (1720) [Decker (1994) 47]

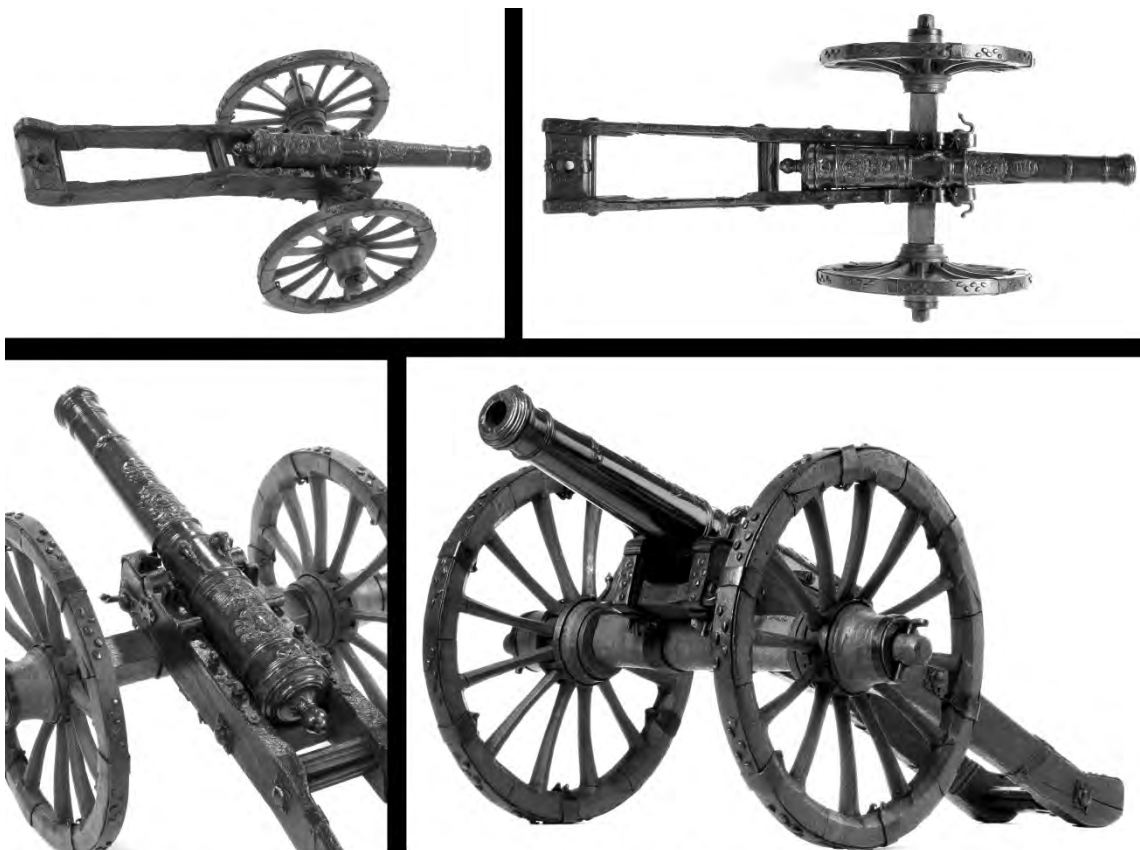
Canon de 16 “a l’ancienne maniere”



French 16-pdr Battery Gun cast in 1714 by A. de Berquen in Strasbourg was 138mm and 316cm long. [HGM, Vienna]

- “Canon du type Douai 1685” 1/6 Scale Model in the Musee de l’Armee. Calibre 134mm, 323cm long (23 calibres), 2270kg and 270:1. The carriage was 423cm long. This was the ancestor of the Long 4-pr of 6¾ *pieds*. In service 1660-1732.⁶⁹
- Two 16-pdrs cast in 1679 and 1681.⁷⁰
- 16-pdr Battery gun cast in 1714 by A. de Berquen in Strasbourg was 138mm caliber and 316cm long [HGM, Vienna].

Canon de 12 “a l’ancienne maniere”

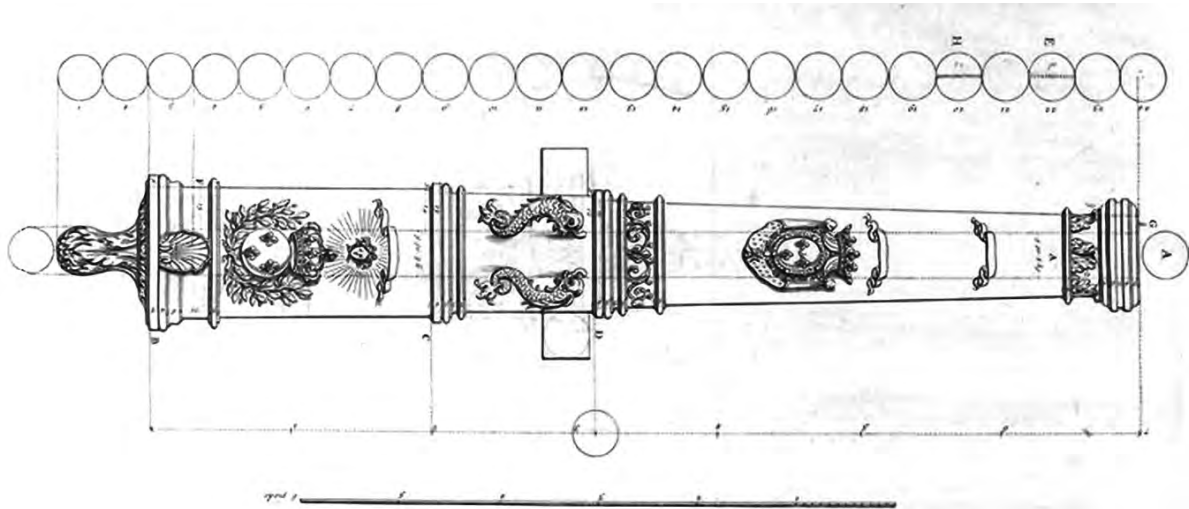


French 12-pdr circa 1694 was presented to the Louis Auguste de Bourbon, Duc du Maine (1670-1736) when he became Grand Maitre d’Artillerie by officers of the city of Paris. An illegitimate son of King Louis XIV of France (1638-1715). The carriage still shows its red paintwork. [Peter Finer Auctions, 2012]

⁶⁹ O.61 and O.214 [Decker (1994) 47]

⁷⁰ N.103 (1679)/N.104 (1681) [Decker (1994) 47]

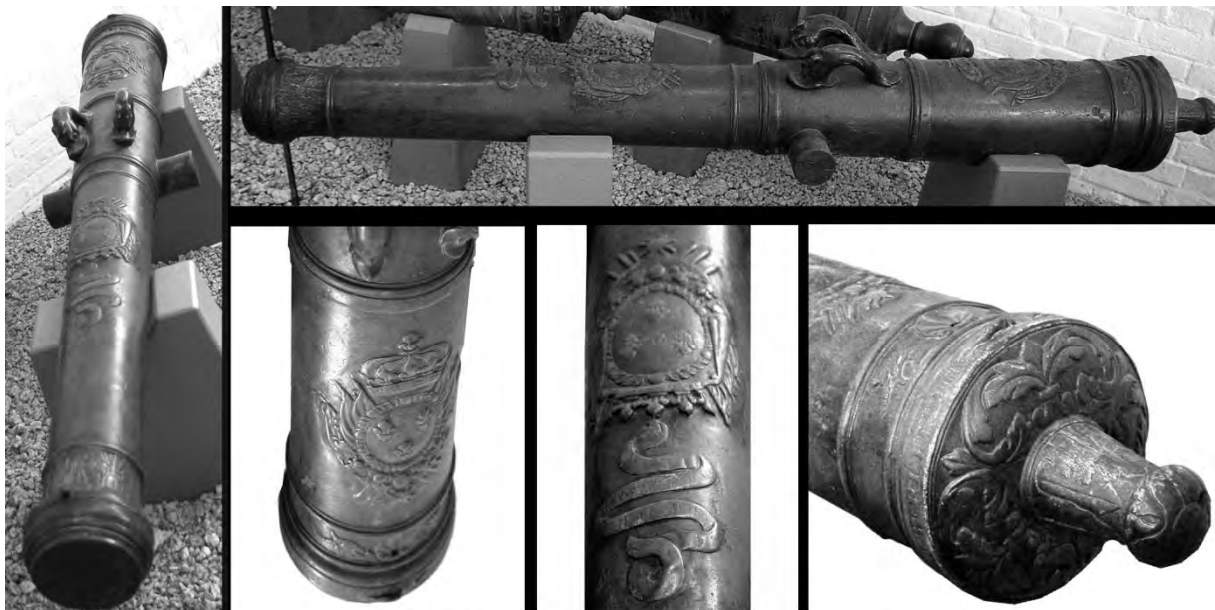
- “Canon du type *Donai 1685*” 1/6 Scale Model in the Musee de l’Armee. Calibre 121mm, 291cm long (23 calibres) and 1640kg. The carriage was 408cm long. In service from 1680 (9 *pieds*) to 1775. Ancestor of the M1732 Vallière 12-pdr.⁷¹
- 12-pdr cast in 1711.⁷²



Dimension of a Cannon [St Remy (1707)]

Canon de 8 court “a l’ancienne maniere”

- “Canon du type *Donai 1685*” 1/6 Scale Model in the Musee de l’Armee. Calibre 106mm, 257cm long (23 calibres), 1080kg and 270:1. The carriage was 364cm long. In service 1660-1775. Ancestor of the M1732 Vallière 8-pdr.⁷³



French 4-pdr cast in 1706 at Rochefort has 89mm calibre and 196cm long.
[Courtesy of the Trustees of the Royal Armouries]

Canon de 4 court “a l’ancienne maniere”

- “Canon du type *Donai 1685*” 1/6 Scale Model in the Musee de l’Armee. Calibre 84mm, 195cm long (22 calibres), 720kg and 270:1. The carriage was 276cm long. In service from c1660 of 6-

⁷¹ O.57 [Decker (1994) 46]

⁷² N.106 (1711) [Decker (1994) 46]

⁷³ O.59 [Decker (1994) 46]

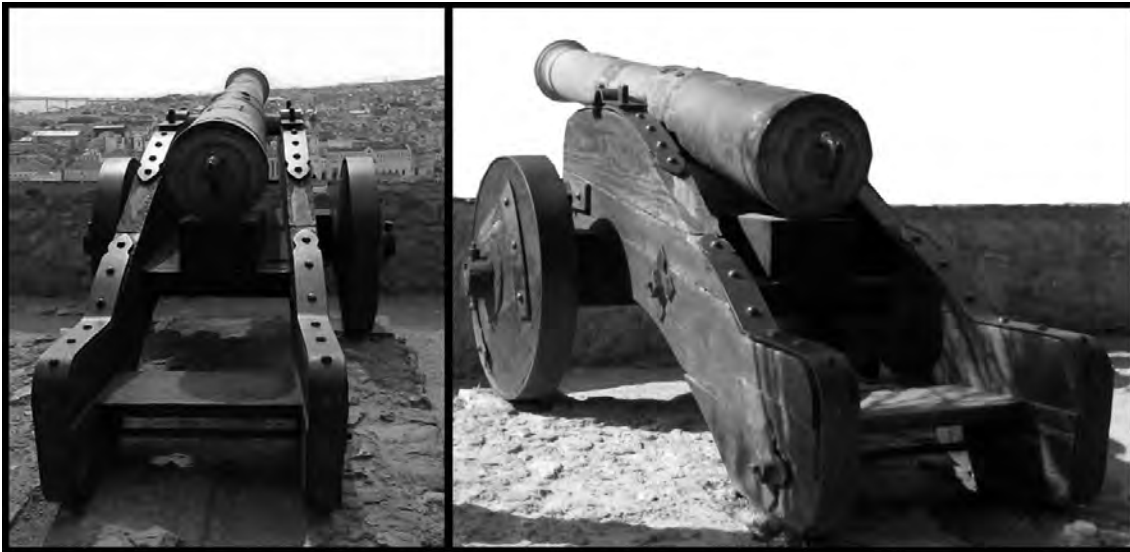
- 7 *pieds*. Ancestor of the M1732 Vallière Long 4-pdr.⁷⁴
- Short 4-pdr cast in 1715 at the Musee de l'Armee.⁷⁵
- Short 4-pdr cast in 1706 at Rochefort was 89mm calibre and 196cm long.⁷⁶

Canon de 4 long “a l'ancienne maniere”

- “*Canon du type Douai 1685*” 1/6 Scale Model in the Musee de l'Armee. Calibre 84mm, 258cm long (30 calibres), 720kg and 360:1. The carriage was 363cm long. In service 1675-1714 of 8-10 *pieds*.⁷⁷

M1689 Vauban Canon de Place

In about 1690, the number of calibres for the defence of fortresses [*Canon de Place*] was reduced to eight calibres [36-, 24-, 18-, 16-, 12-, 8-, 6- & 4-pdr.] These were mounted on the M1689 Vauban garrison carriages.⁷⁸



Portuguese 24-pdr on a Vauban carriage at Castelo Sao Jorge in Lisbon

⁷⁴ O.58 (1711) [Decker (1994) 45]

⁷⁵ N108 (1715) [Decker (1994) 45]

⁷⁶ Fort Nelson, Royal Armouries.

⁷⁷ O.58 (1711) [Decker (1994) 45]

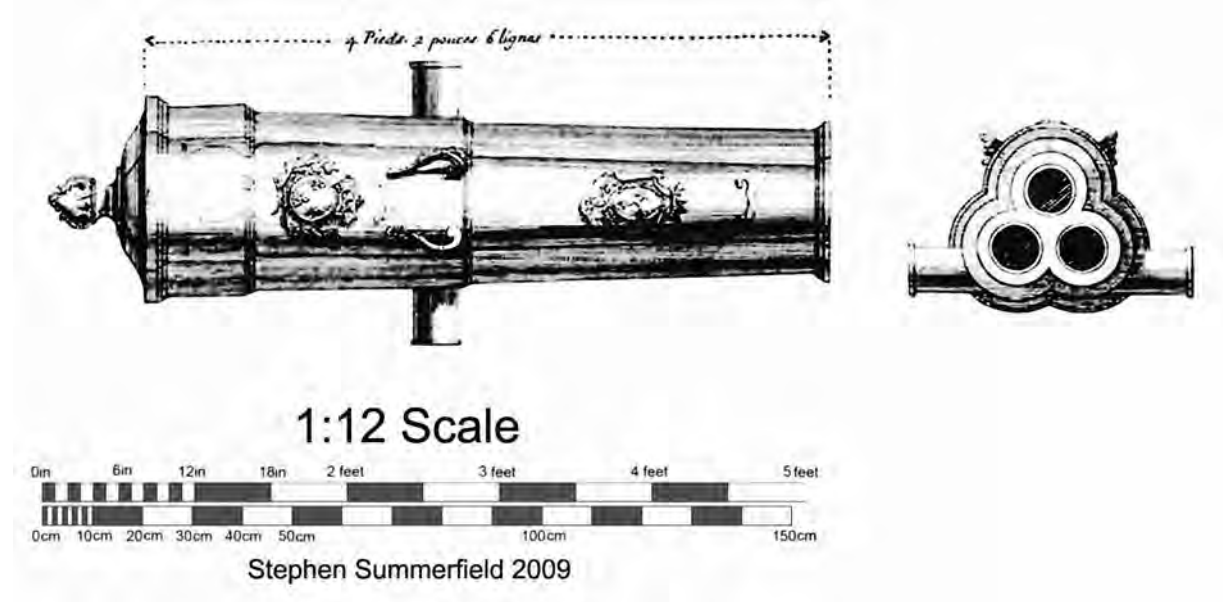
⁷⁸ St Remy (1707) I:188-191 and II: 83.

M1703 Double and Triple Barrelled Guns

In November 1703, double and triple barrelled guns were introduced mounted on field gun carriages. In 1713 they were withdrawn from the field army and used for coastal defence on naval truck carriages until about 1770.⁷⁹

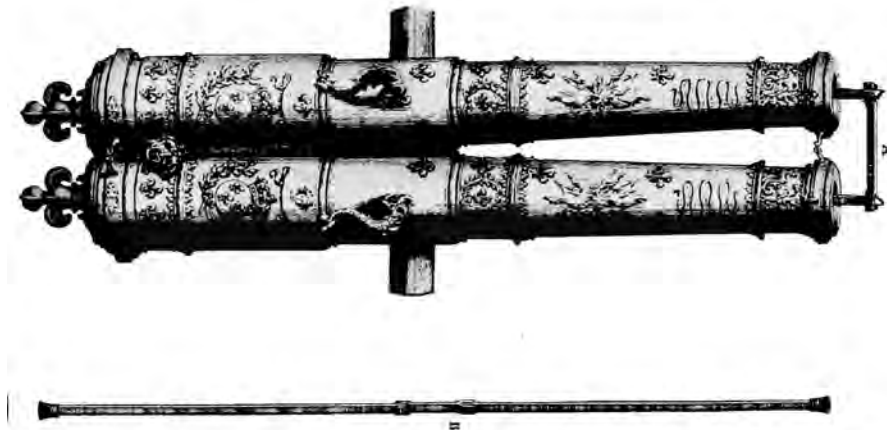
M1703 Bronze 4-pdr triple gun

- *LES PARQUES* cast by Bérenger de Falize in 1704 at Douai, 89mm, 119cm long taken at the battle of Malplquet (11 Sept 1709).⁸⁰
- *LE TRIMEGISTE* cast by Bérenger de Falize in 1706 at Douai, 89mm, 130cm long taken at the battle of Malplquet (11 Sept 1709).⁸¹



M1704 Bronze 6-pdr double gun

- *La Frivole* cast by Bérenger de Falize in 1716 at Douai, 95mm and 211cm.



M1703 Bronze triple 8-pdr

- 1/6 scal model in the Musee de L'Armee. Calibre 106mm, 154cm long and 905kg.⁸²
 - In field service (1704-14), the bracket carriage was 292cm long.
 - In coastal defence service (1715-65) the truck carriage was 142cm long.

⁷⁹ St Remy (1707) I: 99.

⁸⁰ Rotunda No91 [Lefroy (1864) 15]

⁸¹ Rotunda No92 [Lefroy (1864) 15]

⁸² O.312 [Decker (1994) 51.]