

***Arms and Armament  
Presidios of  
California***

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***by***

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*Revised*

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## *An Armory for the Royal Presidio Garrison of Santa Barbara*

Founded April 21, 1782, The Royal Presidio of Santa Barbara was the last in a chain of four military fortresses built by the Spanish along the coast of Alta California, then a wilderness frontier. Others had been established at San Diego, San Francisco, and Monterey. Presidios played a vital role in the occupation of New Spain. They protected missions and settlers against attack by Indians, provided a seat of government, and guarded the country against foreign invasion. The Santa Barbara Presidio was the military headquarters and governmental center of the entire region extending from the southern limits of present day San Luis Obispo County to and including the Pueblo of Los Angeles.

In 1784 the Presidio Company of Santa Barbara consisted of *comandante* Goycochea, *alférez* Argüello, 3 sergeants, 2 corporals, and 50 privates for a total of 57 men, of whom 15 were stationed at San Buenaventura Mission.<sup>1</sup> In May of 1788 Nicolas Soler conducted an inspection of the presidio at Santa Barbara. Lieutenant Goycochea was the only officer. The position of second lieutenant was vacant. The presidio had 54 troops, 176 horses, and 87 mules. Soler commented that the effective force of this place was of medium quality. Soldiers were able horsemen. There was no armourer. Troops were being occupied escorting divisions and guarding the garrison, which was under construction at that time.<sup>2</sup>

Soldiers of the garrison were required to be armed with muskets, pistols, lances, and swords. Most of this equipment was owned by the soldiers themselves, and reserve supplies of equipment were kept at the presidio. In addition the presidio regularly had on hand cannon, shot, and powder for the cannon. The presidio garrison regularly supplied soldiers with armament and powder. In 1782 armament and munitions were kept in one of the storehouses, which could appropriately be called an armory. At this time a casemate (*casa mata*) was also under construction in conformance to requirements of the Regulation of Presidios.

### **Regulations Regarding the Storage and Use of Gunpowder**

According to the Royal Regulations of 1772, which established the regulations under which a presidio was to be operated, the following procedures were followed:

Three pounds of gunpowder were allotted to each soldier annually, which was distributed in cartridges with bullets. Regular target practice was held in the presence of the presidial commandant. New recruits required more powder and shot for their first year of service.

The regulations of 1772 specified that reserve gunpowder be kept in each presidio at the rate of **eight pounds** for each regular soldier. Presidios were required to keep powder reserves at appropriate levels depending on staffing. Records regarding powder consumption were kept and subject to inspection.

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<sup>1</sup> Whitehead (1996:125)

<sup>2</sup> Royal Presidio of Santa Barbara (1788)

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Reserve gunpowder was to be safeguarded under two keys. As powder was used, it was logged in a special notebook giving the specific reason for each addition or withdrawal, certifying the amount used for specific exercises and, when possible, the amount consumed in engagements of war. In addition each soldier was required to account for the use he made of cartridges that were issued to him.<sup>3</sup>

In 1781 a new set of Regulations was written for governing the Province of the Californias. This regulation followed the regulations of 1772 and provided some additional requirements. With respect to gunpowder reserves, the regulations required that each presidio maintain a reserve of **sixteen pounds** of powder for each regular soldier. For the California presidios this doubled the amount of powder reserves that were necessary at each California presidio. Difficulty in powder procurement was cited as the reason for increasing the powder reserves.<sup>4</sup>

### **Presidio Casemates**

A *casa mata* (casemate) or powder magazine was in use at the presidio of Santa Barbara after 1782. This structure was used for housing powder and ammunition for the troops. In 1788 Nicolas Soler made the following observation at Santa Barbara: "Munitions are stored safely in a building outside the walls of the presidio." Soler was satisfied with legitimate use and accounting of munitions storage.<sup>5</sup> The casemate structure according to Whitehead in his book, *Citadel on the Channel* was most likely a vault structure located in the rear yard of what is now the Rochin Adobe at 820 Santa Barbara Street.<sup>6</sup> Casemates were also noted at other California Presidios. In 1787 Captain Nicolas Soler came to San Francisco presidio for an inspection. He observed that dampness had damaged some of the powder stored at the installation. Consequently, he ordered the construction of a magazine to protect the gun powder from weather.<sup>7</sup> The plans for the presidio of San Francisco in 1792 show a casemate structure just outside the front gate and to the right of the presidio. The dimensions of the structure was 4 varas (11 feet) square by 2 ½ varas (approx. 7 feet) high. Plans for the presidio of San Diego also show a casemate structure outside the walls of that presidio.<sup>8</sup>

Typically a *casa mata* or casemate would have had a wooden floor inside of a vaulted or round-roof structure. The vault would have had another roof over it to protect powder from moisture. In addition the building would have been locked as per regulation with keys under control of the garrison officers. Powder was stored in casks or chests on racks inside the structure.

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<sup>3</sup> Brinkerhoff and Faulk (1965:27)

<sup>4</sup> Johnson (1929:22)

<sup>5</sup> Royal Presidio of Santa Barbara (1788)

<sup>6</sup> Whitehead (1996:136)

<sup>7</sup> Langellier and Rosen (1996:50)

<sup>8</sup> Whitehead (1986: Plate XI, 1820 Vischer Papers)

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As an example of what was stored in the *casa mata*, at the presidio of Santa Barbara, we can refer to the following report of Argüello to his *comandante* in December of 1784:

Argüello report to Goicoechea disposition and supplies of munitions

72	Cannon, Caliber 4 charges with ball	
6	Cannon Caliber 4 charges with grapeshot	
82	Cannon Caliber 4 loose cannon balls	
47 arrobas 6 pounds	Powder	(1,198 pounds)
4472	Musket cartridges	
16 arrobas 18 pounds	Musket balls	(424 pounds)
113 arrobas 13 pounds	Lead	(2,866 pounds)
2247 pieces	Flint <sup>9</sup>	

Notice that ½ ton of powder was on hand in 1784 with over 1 ½ tons of musket balls and lead. When the Presidio of Santa Barbara was founded in 1782, it did not have adequate powder reserves available. The supply gradually increased until reserves were met in 1784.

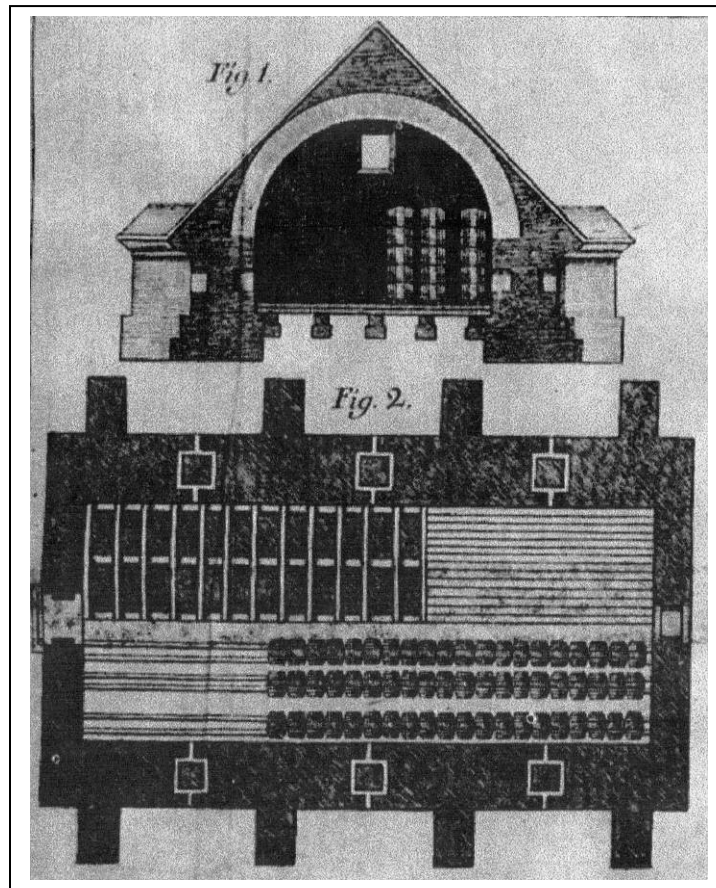
If you do the math for a 57 man company requiring 16 pounds of reserve powder per man, the garrison at Santa Barbara in 1784 had more than the required powder reserves as specified by the 1781 regulations. The total powder reserves for a 57 man company should have been 912 pounds. The extra 286 pounds of powder was probably powder reserves for the two four-pounder cannon that were at the Presidio of Santa Barbara in 1784.

Later in the 1790s fireworks were also stored in the *casa mata*. Reference is made to bomb fireworks, aerial fireworks, firecrackers, rockets, and large fireworks wheels.

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<sup>9</sup> Sahyun (1784: SBMA1005a)

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*from "Tratado de Fortification", Taramus Sanchez,  
Barcelona, 1768*

Spanish *Almacen de pólvora* or powder magazine from the 18<sup>th</sup> century used in the Americas. This one is 70 feet long by 28 feet wide and 9 feet tall. It has a wooden floor and a vault of bricks three deep. The vault is covered by a second roof. A loophole in the structure provides for ventilation. Powder is stored in *barricas* (casks or barrels) of 100 *libras* each, which is roughly 100 English pounds.

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**Gunpowder:** The manufacture of gunpowder was reserved to the crown as a prescriptive right. It was an administered monopoly only after October, 1766, when José de Gálvez, following his instructions, put the branch under an administrator who took charge of the powder factory at Mexico. By 1600 a royal factory for the manufacture of gunpowder had been constructed at Chapultepec and was put under the control of treasury officials. Up until the arrival of Gálvez, the right to produce it was leased. As a revenue producing measure, Gálvez created a monopoly by reorganizing the administration of powder manufacture. Besides the Chapultepec factory, there were 112 other places where powder was made. All of these were put under the supervision of a director-general, an accountant, and a treasurer. The result of the new organization created about 35,000 pesos annually more for the crown. The government was provided with better powder, and the mining industry was at the same time benefited by a reduction of two reales in the price per pound.<sup>10</sup> Crown control of the manufacture of gunpowder was one of the four monopolies established in the frontier provinces. The others were on tobacco, playing-cards, and quicksilver which was used in the mining industry.

**Weapons:** There is evidence from other sources to believe that the requisitions and invoices of the Presidio of Santa Barbara do not reflect the sole source of weaponry supply for the Presidio. Among documents in the *Real Hacienda* section of the *Archivo General de la Nación* are invoices for weapons and ammunition being sent to all the presidios of Baja and Alta California, which appear to be separate from the regular *memoria* requests. In the presidio requisitions and invoices are to be found equipment for making weapons, such as bullet molds and a diestock for musket screws. Weapon parts, such as sword blades and guards, lance shafts and blades are also to be found. Weapon accessories are listed such as cartridge pouches and saddle mounted musket holders. Also mentioned are many varieties of swords (wide, short, and belt), sabers, muskets and even a war drum.<sup>11</sup> Numerous requests are made for knives of various types and for fireworks.

**1779, July 19:** Neve lists the following that should be provided for the garrison at Santa Barbara: 59 cartridge pouches of 21 to 24 shots, the boxes of tin plate, lined in leather and attached to the strap which will be of the appropriate width and a vara and a half long, with buckle of plain brass and two small nails, its exterior of smooth leather with corner straps and buttons which [?] the holster and at the ends of it two pouches of chamois joined to the [?] and in one little [handle?] *revador* of tin plate.

40	Belt Knives
8 dozen	Large Knives <sup>12</sup>

Neve wrote Regulations for governing the Province of the Californias which were approved by Royal Order, October 24, 1781. Under title Three, Uniforms he states:

..Moreover, as the wooden cartridge belts with there double row of sockets are uncomfortable, they should be fashioned in one row with twenty-four sockets made of tin, lined with leather and fitted close together on the strap encircling the body, for which reason the strap should be a vara and a half long with corresponding width. The holster should be covered with a flap of soft leather which shall begin at the breath of six fingers from the buckle, which shall be of

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<sup>10</sup> Priestley (1980:346-347)

<sup>11</sup> Perissinotto (1998:33)

<sup>12</sup> Perissinotto (1998:48-55)

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brass, smooth, with two rivets, and two small pouches at either end of the holster, one of them to contain a powder flask made of tin.<sup>13</sup>

**1780, Feb. 10:** Neve received a copy of Croix's instructions to Rivera which ordered the founding of the presidio and three missions along the Santa Barbara Channel in addition to two pueblos. The Viceroy was asked for assistance with the following:

..provisions and goods are to be sent through the Port of San Blas, it will be suitable that a reconnaissance of the Channel, like that which Frigate Lieutenant Don Diego Choquet made, will be repeated ahead of time, so that the unloading of provisions be done there, and if that is not possible, at the Port of San Diego.

Fifth: The Governor has asked for two cannons *de a 4* [using four-pound cannon balls] and suitable cartridges, half of them grapeshot, for the defense of the aforementioned presidio and that the transporting be done by way of San Blas.<sup>14</sup>

**1781, Oct. 29:** Part of list as follows:

12	Belt Knives
8 doz.	Large Pointed Knives
20	Sword Blades, not Toledan but either Barcelonan or German
30	Cartridge Boxes
12	Mexican Saddles, outfitted
12	Saddle-Mounted Musket Holders <sup>15</sup>

**1782, June 2:** Governor Neve made an inspection of the Santa Barbara Presidio and reported his findings to Commanding General Croix. Troops were put through the manual of arms, cavalry formations and target practice and performed satisfactorily. The Governor also reported on the status of armament, powder, cartridges and the horses and mules. The safeties on the pistols were inoperative and the swords of Toledo steel were tempered so highly that they would break if used carelessly.<sup>16</sup>

**1782, June 14:** Ortega signs a request for this partial list:

40	Swords with German, Catalan or Valencian Blades with Scabbards
24	Sword Blades like above, with Scabbards
2 arrobas	fine Gunpowder to sell (51 pounds)
1 dozen	Pocket Knives <sup>17</sup>

**1782, June 30:** Neve Report, Royal Presidio of Santa Barbara

**Reference to swords:** "they break into several pieces, consequently they are considered of very little use, and for their repair there have been ordered German, Barcelonan, or Valencian blades, and there is a lack of 28 swords to be complete."

**Store of arms:** "The store of arms consists of 6 muskets, 19 ½ pairs of pistols, and 7 lance heads, from which subtract the lack which results for the completion of 59 positions, and the 2 muskets rejected, the legitimate store is only 15 pair of pistols and 3 lances."

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<sup>13</sup> Johnson (1929: 14-15)

<sup>14</sup> Whitehead (1996: 61-62)

<sup>15</sup> Perissinotto (1998:61-63)

<sup>16</sup> Whitehead (1996: 94-96)

<sup>17</sup> Perissinotto (1998:69)

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### **Horse herd including that of the Officers:**

97	Horses	
169	Mules	(10 of them of little use)
29	Beasts of burden	

### **Store of powder and munitions:**

8 arrobas 11 pounds	Powder	(214 pounds)
6,080	Cartridges	
3 arrobas 23 pounds	Ball	(99 pounds)
1,150	Flintstones	

**Reference to munitions storage:** “Their management has followed the regulations with orderliness and they are kept in one of the storehouses with all possible caution while a casemate is under construction in conformance to the requirements of the Regulations of Presidios. There is needed for the annual consumption of this Company a matter of 3 pounds of powder per position of daily pay..... soon the useful store of munitions will receive 2 cannon of 4 cal., and cartridges, corresponding amounts of ball and grapeshot, which the frigates *Princesa* and *Favorita* are carrying, which are in the Port of San Francisco.”<sup>18</sup>

### **1782, Dec. 1: Ortega inventory**

#### **Soldiers and Mounts:**

8	Soldiers on guard at the presidio
7	Soldiers in care of the horses
15	Soldiers at San Buenaventura Mission
2	Soldiers in the town of Los Angeles
24	Soldiers free for service
89	Horses
164	Mules

#### **Munitions and extra weapons:**

2	Cannons of 4 with 140 Cartridges and Ball	
13 pairs	Pistols	
5,000	Cartridges of shot gun caliber (probably refers to musket rounds)	
18 arrobas	Powder	(457 pounds)
127 arrobas	Lead	(3,222 pounds)
10 arrobas	Bullets	(254 pounds)
3,000	Flintstones	

#### **Shortage for the Company:**

2	Muskets
26	Leather Jackets <sup>19</sup>

**1782:** Felipe de Goycochea, memo of ordinance, received by his predecessor, José de Ortega

#### **Artillery:**

1	Cannon, bronze re-enforced 4 calibers weighing 7 quintals 62 pounds (762 pounds?) in good condition and mounted.
1	Cannon, (same as above), weighing 7 quintals 46 pounds (746 pounds?) in good condition and mounted.
1	iron bore-swab Ramrod of wood, good condition.
1	iron Ladle with swabbing sponge, good condition.
2	touch-hole Scrapers (picks?) good condition.
1	Cartridge Case of wood.

<sup>18</sup> AGI 518 (1782-1784: Reel 1806, p 14, Schewel)

<sup>19</sup> CA15 (1782: Vol III, 561)



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### **Munitions:**

407 pounds	Powder, net, in 3 chests
140	Cartridges, powder and ball, caliber 4...(cannon rounds?) in 6 chests, 2 of these with the cartridges in pieces and the powder ground together with the steel it has in it.
3,615 pounds	pure Lead.
4,000	Flintstones <sup>20</sup>

**1783:** Two 4 pounders noted in arsenal inspection at Santa Barbara.

### **1783, Mar. 2:** Ortega inventory

On holidays they practice target shooting and consume 5 pounds of powder and 8 pounds of ball using with these 3 ½ pounds of lead, which is collected.

54	Horses	
162	Mules	
140	Cartridges for cannon <i>de a 4</i>	
6,700	Cartridges for musket	
18 arrobas	Powder	(457 pounds)
14 arrobas	Ball	(355 pounds)
119 arrobas	Lead	(3,019 pounds)
2,860	Flintstones <sup>21</sup>	

### **1783, Oct. 14:** Ortega signs a request for this partial list

1	Bullet Mold with slots for 14 <i>adarme</i> balls and others for buckshot
4 dozen	Large Knives
3 dozen	Belt Knives <sup>22</sup>

### **1784, Jan 25:** Goicoechea to Argüello

For the firing drill which the Adjutant Inspector Don Nicolas Soler is having held this afternoon, you will draw 60 cartridges with ball and 25 flints, for 2 shots for each of the 30 men whom you have drawn up, giving flints to the 25 who lack them, as they are carrying useless muskets...Goicoechea<sup>23</sup>

### **1784, Mar. 30:** Cartridges from the Colorado Expedition

In the recent inspection review by Captain Adjutant Inspector of the Colorado, the deceased Excellence, Felipe de Neve, Governor of this Province, having unpacked the boxes found 2252 cartridges all broken and their powder ground up although it was unpacked with the greatest of care and put into secure custody with the powder in the sun to dry out and the cartridges that could be restored were opened taking out the bullets that were left over, and afterwards a report was made of the state of this ammunition after being opened in Santa Barbara.

It was done on the same day that the order was received and only 502 cartridges were saved, and the rest with the powder were thrown into the water because they were found to be unserviceable. The bullets that were left are now stored with the cartridges in the *Casa Mata*.<sup>24</sup>

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<sup>20</sup> Sahyun (ND: #100,197)

<sup>21</sup> CA15 (1783: Vol V,165)

<sup>22</sup> Perissinotto (1998:75-77)

<sup>23</sup> Sahyun (1784: SBMA1005a)

<sup>24</sup> Adams (1784: Warrant)

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**1784, Apr. 27:** Felipe de Goicoechea – armament that the troop is using

In addition to artillery specified as received from predecessor, José de Ortega in 1782 .

**Armament in use:**

46	Muskets, new caliber armament, in good condition, in use since 1780...
12	Muskets, short, medium caliber, useless due to defective locks, in use since 1775.
40 pairs	Pistols, new arms of the same caliber as the first muskets, in good condition.
77 pairs	Pistols, the same caliber, defective locks, in service since 1779.
46	Swords, wide blade, cavalry, subject to breaking because of poor temper.

**Defensive Armament:**

40	Leather Jackets, of white chamois, good condition.
63	Oval Leather Shields, colored(?), good condition.
30	Braces and Bits (?), good condition.

**Reserve Armament:**

6 pairs	Pistols, new arms, good condition.
70	Shells with ball, cannon, caliber 4
48	Shells, dismantled, the powder placed with arms in which they came.
75	Loose balls of the above caliber
8 arrobas	Powder for bushing. (200 pounds)
6,700	Cartridges with ball for muskets
74 arrobas 2pds	Loose musket balls (1,879 pounds)
773? (113) arrobas	Lead in sheets (2,866 Pounds)
2,600	Flintstones

In the reserve stores shown there are only 6 pairs of pistols, of the new armament; there are lacking to complete the equipment of the 69 men of which this company is composed, 3 muskets, 15 swords, 5 lances, and 21 leather jackets.<sup>25</sup>

**1784:** Various orders (*Libramientos*) from Goicoechea to Argüello to use munitions:

**May 1:** for target practice this afternoon and on the 3<sup>rd</sup> of this month you will draw from the *Casa Mata* (Casemate) 5 pounds of powder and 8 of ball, with 35 flintstones to replace those that are useless.. To be continued on the days when the troop can occupy themselves with the aforesaid drill, for days of work are needed for construction of this Presidio.

**June 20:** You will order 6 oz. of powder taken out to salute with 4 cannon shots the ship, which is coming to visit this port, and is carrying the Memorial of the Father President.

**June 23:** You will draw from the Casemate 120 musket cartridges with ball so that the troop may execute a firing drill on Memorial Day, the 30 men who are available, supplying them with 30 flints so they will not misfire because those, which they have, are useless.

**July 25:** You will order 25 men who are available to fire 4 shots each tomorrow. For this you will draw from the Casemate 104 cartridges and musket balls, and 20 flints, trying to collect the balls for renovation.

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<sup>25</sup> CA3 (1784:197-198, No. 97-98)

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**Dec. 4:** To celebrate the feast of the Patroness of this Presidio of Santa Barbara, you will order the available troops to fire 3 salvos at Mass. For this you will draw from the Casemate powder and flints, in case some are used up, afterwards reporting what was used .... Argüello reported that 37 oz. Of powder and 27 flints were used.

**Dec. 31:** You will send to Sergeant Pablo Cota, commander of the Escort of San Buenaventura, 120 flintstones which you will take from the replacements that you have in your charge ....<sup>26</sup>

**1784, Dec. 31:** Lt. Goicoechea and Ensign Josef Argüello certification

We certify that the 48 cannon cartridges that existed, broken up and mashed, their powder mixed with sawdust were thrown into the water for their disposition, and in the presence of the Captain and Assistant Inspector Don Nicolás Soler, doing the same with the powder that came out of 2252 musket cartridges for guns that were found destroyed by those who inspected them. The same was done in the expedition to the Colorado River, upon whose renewal they took advantage of obtaining 502 cartridges that were consumed in the exercises of target practice and distribution to the troops who for the review of Arms they found them correct having reclaimed two in bullets which they used in said exercises and in renovation of cartridges.

Thus we certify as to consumed 14 lbs of powder in the salutes they made to ships that carried the records of this presidio, and salvos that were made on the day of the of the Patron Saint of Santa Barbara, and the committee. We sign on December 31, 1784. Felipe de Goicoechea and Josef Argüello.

Argüello report to Goicoechea disposition and supplies of munitions

72	Cannon, Caliber 4 charges with ball	
7	Cannon Caliber 4 charges with grapeshot	
83	Cannon Caliber 4 loose cannon balls	
47 arrobas 6 pounds	Powder	(1,198 pounds)
4473	Musket cartridges	
16 arrobas 18 pounds	Musket balls	(424 pounds)
113 arrobas 13 pounds	Lead	(2,866 pounds)
2247 pieces	Flint <sup>27</sup>	

**1785, March 28:** Letter of transmittal from Chihuahua (Captain General of Interior Provinces), Rengel to Galvez: ( Letter originates from Mission San Luis, 24 April, 1784, composed by Nicolas Soler)

The firearms are of good quality furbished in brass: they serve since the recent creation of the company and they are in mediocre condition, with the exception of 9 muskets of various calibers, their use from the year '74 and not very useful: there are lacking 3 muskets for their incompleteness [sic] 11 swords and 9 lances. This company maintains for its stores only 7 pairs of pistols: in which consideration they should await the consequent \_\_\_\_\_ provisions, to correct this imposed defect, with more reason because of the difficulty of the means (?).

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<sup>26</sup> Sahyun (1784: SBMA1005a)

<sup>27</sup> Sahyun (1784: SBMA1005a)

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The leather jackets are of good construction lacking 26 to be complete, and these and the leather shields (?) are in middling condition: the saddlery is complete, and in the same condition.

The horse herd consists of 97 horses and 154 mules, without including those of the officers who maintain the corresponding number nor the 30 which compose the drove; of the first, two were rejected, and of the second, 4, the rest remaining in serviceable condition.

This company had in deficit at the end of the year of 1782, 2,048 pesos 5/8 granos and due [or owed] 1807 pesos 6 reales 1 ¼ granos and settled up to December of the following year 1783. It reached 3,592 pesos 1 real 6 granos and its resolution 957 pesos 7 reales 1 1/5 granos the deficit is based on observing the arrangements for the distribution of their salaries, and the debts devolve on the recruits and positions which for the new creation of this company came in from the Province of Sonora with them (?)

The payment of positions adjusted to the end of the year 1782 had a deficit of 1,043 pesos 2 reales 11 ¾ granos and in the following last year 2,064 pesos 6 reales ¾ granos in cash with the corresponding documents of entry, and these quantities covered by a receipt from the Paymaster until the funds arrive: this fund is administered and that of (?) retentions which the discounts for corporals and soldiers amount to 1,075 pesos with the requirements, and objects (?) which the laws determine, and with the same salaries are adjusted and paid, the supplies of the troops, of which I am satisfied with the systematic operation (?), management and legality of the accounts of the Expense Fund for the men, and retentions (?), and of the payment of officers and loans of the soldiers I have put my approval on the books.

In the stores of munitions there exist:

120	Cartridges with ball of 4 caliber	
75	Balls loose	
14 arrobas 3 pounds	Powder	(358 pounds)
6,888	cartridges with musket ball	
14 arrobas	balls	(355 pounds)
113 arrobas 13 ½ pounds	lead	(2,867 pounds)
2,600	flint stones	

These munitions are kept in the best way possible using an adobe house while one which is suitable without the greatest danger be built; and its distribution is managed with arrangement which being clear to me I have approved its respective books (?) ..... Nicolas Soler<sup>28</sup>

**1787:** Two 4 pounders noted in arsenal inspection at Santa Barbara. Two *pedreros* were shipped from Mexico City to Alta California for use at San Diego and Santa Barbara. June 19, 1787: Fages informed of an order given to San Blas for the transport of "*dos pedreros*" for the presidios of Santa Barbara and San Diego.<sup>29</sup>

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<sup>28</sup> AGI 520, Reel 1908 (1785: Schewel)

<sup>29</sup> CPSP,CA-4(1787:7-8)

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**1787, Feb. 26:** Letter advising Fages that 50 *escopetas* have been sent to the five presidios of Fages' jurisdiction (including Santa Barbara).

**1787, Mar. 21:** Goycochea and Fages request the following:

80	Shafts for mountain lance
80	Blades for same of ½ length, and two fingers wide, well-tempered, with their corresponding ferrules.
29	Cases for long musket
30	Sword guards
[?]; 2	War Drums with [?] Presidio and more like the ones the [?] Troop uses [Fages signature and rubric] <sup>30</sup>

<b>1787, Nov. 3:</b>	Lieut. Commandant -	Goycochea, Felipe de
	Ensign-	Vacant
	Sergeants-	Carrillo, Raymundo
		Cota, Pablo
		Olivera, José
	Corporals-	Amador, Pedro
		Olivera, Ignacio
	Soldiers-	

Ayala, José	Gonzalez, Phelipe	Rodriguez, Ignacio
Ballesteros, Juan	Gonzalez, Thomas	Rodriguez, Joaquín
Blanco, José	Higuera, Joaquín	Rosalino, Fernandez
Boronda, Manuel	Leyva, Agustín	Ruiz, Efigenio
Calvo, Francisco	Lima, José	Ruiz, Francisco
Cortés, Nicolás	Lugo, Francisco	Ruiz, Fructuoso
Cota, Manuel	Lugo, Luis	Salazar, José
Dominguez, José	Lugo, Manuel	Samaniego, José
Espinosa, Gabriel	Olivas, Juan	Soto, Guillermo
Espinosa, Thomas	Orchanga, José	Valdés, Eugenio
Feliz, Anastacio	Ortega, Ignacio	Valdés, Malecio
Feyjoo, Manuel	Patino, Jose	Valencia, Juan
Figueroa, Manuel	Peña, Luis	Valenzuela, José
Flores, José	Pico, José	Valenzuela, Pedro
García, Francisco	Piña, Máximo	Velardo, José
German, Isidro	Quijara, Vicente	Ximenez, Hilario
Gonzalez, José	Reyes, Martín	
		(4 enlistments vacant)

Total:	01	Lieutenant
	03	Sergeants
	02	Corporals
	50	Soldiers
	<b>56</b>	

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<sup>30</sup> Perissinotto (1998:105)

## *Arms and Armament, Presidio Santa Barbara*

### Cabalgada:

124	horses
109	mules

### Reserve Arms:

29	sword blades
13	muskets lacking
6	leather jackets
19	sword guards
(Armament in use is in middling condition)	

### Reserve supply of munitions:

42 arrobas 17 pounds	powder	(1,083 pounds)
32 charges	#4 cannon balls	
1 charge	grape shot	
102	loose cannon balls	
11 arrobas	grape shot	(279 pounds)
16 arrobas	loose musket balls	(406 pounds)
3,600	cartridges with musket balls	(2,866 pounds)
113 arrobas	lead in a slab	
1,900	Flint stones	

The third front (wall) of this presidio is finished, with the church, the officers' houses, chaplains' house and 5 soldiers' houses.<sup>31</sup>

**1788, May:** In 1788 Nicolas Soler conducted an inspection of the Presidio at Santa Barbara. Lt. Goycochea was the only officer. The position of 2<sup>nd</sup> Lt. was vacant. Presidio had 54 troops, 176 horses, and 87 mules. Soler commented that the effective force of this place was of medium quality. Soldiers were able horsemen. Troops were being occupied escorting divisions and guarding the garrison, which was under construction. Shooting exercises had not been done due to the poor state of the arms, which were due to be replaced and were on order. Armaments were largely in poor condition considering the time that they had been used. There was no armourer. To be complete, 2 guns and 4 pairs of pistols needed fixing. Leather jackets and leather shields were of good quality. Saddles were of medium quality and there were provisions in the shop for their upkeep.

1,900	Flint stones
129	Cannon balls

Other munitions listed, but unable to decipher the meaning

Munitions are stored safely in a building outside the walls of the presidio. Soler was satisfied with legitimate use and accounting of munitions storage.<sup>32</sup>

### **1788, Dec. 31:** Goycochea to Fages – Account of Munitions – State of Strength

5	Cannon shells with ball	
129	Loose cannon balls	
11 arrobas 12 pounds	Grapeshot	(291 pounds)

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<sup>31</sup> CA54 (1787: Vol. pp 6,7, Sahyun )

<sup>32</sup> Royal Presidio of Santa Barbara (1788)

## *Arms and Armament, Presidio Santa Barbara*

37 arrobas 8 pounds	Gunpowder	(947 pounds)
2,634	Cartridges for guns	
16 arrobas 18 pounds	Ball for cartridges	(424 pounds)
113 arrobas 13 pounds	Lead in sheets	(2,866 pounds)
1,685	Gunflints	

### **Warrants as follows for the year 1788:**

#### **1788, Mar. 1: Sgt. Pablo Antonio Cota, Santa Barbara:**

To replace and renew the cartridge boxes of all the Company you will draw 1150 cartridges from the Case-Mate, and 215 flints to give them when their cartridge boxes are dismantled.

#### **1788, May 22: Sgt. Raymundo Carrillo, Santa Barbara:**

To celebrate Corpus Christi you will draw 6 ½ pounds of powder for 3 cannonades and 4 discharges with the troop present.

#### **1788, Oct. 27: Ensign Pablo Cota, Santa Barbara:**

For the salute to the boat which is bringing the pay for these Presidios, and to the frigate which is coming from the expedition to the North, and are in sight, 5 cannon shots will be fired for each one, with 15 pounds of powder.

#### **1788, Nov. 4: Ensign Pablo Cota, Santa Barbara:**

To reply to the two frigates, which give salute to our Sovereign, today from San Carlos, you will draw 23 pounds of powder for 21 cannonades.

#### **1788, Dec. 4: Ensign Pablo Cota, Santa Barbara:**

To honor the Patron Saint of this Presidio you will draw 4 ½ pounds of powder for 3 cannonades at Mass.

### **Statement of Forces 1788:**

5	Presidio guard	
4	Guard for horse drove	
11	At Mission San Buenaventura	(1 Sgt. and 10 soldiers)
3	At Mission Santa Barbara	(1 corporal and 2 soldiers)
15	At Mission Purisima Concepción	(1 corporal and 14 soldiers)
1	At Mission San Gabriel	
3	At Presidio of San Diego	
1	At Presidio of Loreto	
2	Mail couriers at Presidio of Monterey	
13	Available for service	(1 Lt., 1 Ensign, 1 Sgt., 10 soldiers)
59	Total company strength <sup>33</sup>	

#### **1790, Dec. 29:** Sent to the paymaster of the Royal Presidio of Santa Barbara invoice as follows:

1	tercio (bundle) of 30 superior Musket Holders
48	Cartridge Pouches with one string of 18 cartridges with their straps and buckles. <sup>34</sup>

#### **1790, Jan. 16:** Sent to the paymaster of the Royal Presidio of Santa Barbara invoice as follows:

30	tooled leather Musket Holders
1 small box	of 80 Lance Points, 1 tercia long and two fingers wide, with their corresponding ferules <sup>35</sup>

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<sup>33</sup> CA4 (1788)

<sup>34</sup> Perissinotto (1998:141)

<sup>35</sup> Perissinotto (1998:157-161)

## *Arms and Armament, Presidio Santa Barbara*

**1791, Dec. 9:** Invoice as follows to Presidio of Santa Barbara:

2 gross            Aerial Fireworks  
2 gross            Sparkling Fireworks<sup>36</sup>

**1792, May 10:** Requisition by Goycochea:

60                loose Sword Guards  
60                Sword Blades with Scabbards  
2 gross           Aerial Fireworks, with their *jarillas*; and 6 dozen runners<sup>37</sup>

**1793:** Three *pedreros* were noted at Monterey and one at Santa Barbara.<sup>38</sup> Santa Barbara has four cannon and one *pedrero*.<sup>39</sup>

The threat of British aggression posed by the Nootka crises required a reorganization of the military defense of California. Before the controversy began, the presidios had been established, not for resistance of foreign invasion, but for the reduction of the Indians. For this purpose it was sufficient to erect ramparts of simple adobe and garrison them with soldados de cuera, or leather-jackets-mounted lancers trained for Indian fighting. And as the condition of the presidios shows, artillery was considered of little practical use: San Francisco had only two cannon, neither of them serviceable; San Diego had three, none of them mounted. Santa Barbara had two and one stone mortar; Monterey had eight and three stone mortars.<sup>40</sup>

Confronted with the prospect of foreign aggression, the viceroy was determined to fortify the presidios. Batteries would have to be constructed for the defense of San Diego, Monterey, and San Francisco. Eight 12 pound cannon should be the minimum for each. Mounted lancers must be officered by men who could train them to European methods of warfare. Additional troops would be required to man the presidios and artillerymen would be necessary to work the batteries.<sup>41</sup>

Plans for the defense of California were drawn up by 3 men, namely, Pablo Sanchez, a military man; Salvador Fidalgo, a naval officer, and Miguel Costansó, an engineer. Protecting the extended California coastline with all of its bays and inlets was recognized as impossible. Attention was therefore to be concentrated on the 3 principal seaports-San Francisco, Monterey, and San Diego. These ports were to each have a battery with a detachment of artillery. Additional infantry trained in European warfare would be provided. If the enemy should attack in force, the plan was to offer no resistance but to then retire to the interior with inhabitants, moveable property, and livestock; then from places of shelter to harass the enemy.<sup>42</sup>

**1793:** Vancouver visited Santa Barbara and was surprised at the failure of the Spaniards to fortify so strong and important a position. He mentions two brass nine-pounders before the presidio

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<sup>36</sup> Perissinotto (1998:189)

<sup>37</sup> Perissinotto (1998:207-211)

<sup>38</sup> A *pedrero* (rock thrower) is a light gun up to a 3 pounder. It is normally mounted as a swivel gun, but can be mounted on a field carriage.

<sup>39</sup> CA14 (1793: 102-103)

<sup>40</sup> AGN (1793), in Guest (1996:64). Guest makes a reference to "stone mortars" at Santa Barbara and Monterey. Spanish for this is "*pedrero*", which should be interpreted as light caliber swivel gun.

<sup>41</sup> AHN(1792), in Guest(1996:64)

<sup>42</sup> Biblioteca Nacional (1795), in Guest(1996:65)



## *Arms and Armament, Presidio Santa Barbara*

entrance.<sup>43</sup> (Vancouver may have over estimated the size of these guns ... there are references to one bronze 6 pounder in later years).

### **1793, Mar. 31:** Requisition by Goycochea:

- 6 gross of large rockets: aerial fireworks and firecrackers
- 42 large fireworks wheels
- 1 bullet mold, large with two rows: in one 14-caliber bullets, and 12 *adarmes* and, if possible, it should have two for cannonballs, and in the other row, for small lead bullets and buckshot.
- 12 dozen large mariners' knives<sup>44</sup>

### **1795, Dec. 29:** Invoice Presidio of Santa Barbara:

- 1 flag with the new design of the royal Armada<sup>45</sup>

### **1795, Jan. 21:** Invoice Presidio of Santa Barbara:

- 1 crate with 12 dozen large knives
- 1 crate with 12 Ripoll muskets<sup>46</sup>

**1795, Oct. 19:** Borica to Goycochea: all soldiers and townspeople are urged to contribute 1 peso per year to a schoolteacher who should be paid 125-130 pesos per year. The teacher was to teach the Christian doctrine first, then reading and writing. Parents of children will furnish primers. Writing paper will be furnished by the Paymaster who will collect the paper later to make cartridges.

**1796:** A 3 pounder and related equipment were shipped to Santa Barbara.<sup>47</sup>

### **1796, Apr. 11**

Note about the materials from the frigate *Aranzazú* which her commander lieutenant of the same class Don Juan Bautista Matute delivered to the Presidios of New California in the year 1795. For Santa Barbara:

- 1 canon of 3 calibers and also another useless one without ammunition
- 1 gun carriage (*cureña*) – iron bound with its bench, pillow?
- 1 ramrod with its sponge
- 1 wad hook
- 2 framings of a gun (of lead) ?
- 50 cartridges in coarse brown linen wrappers<sup>48</sup>

### **1796, Feb. 10:** Goycochea and Governor Borica request the following from San Blas:

3000 flintstones<sup>49</sup>

**1796-1798:** Having no fort (*Castillo*), Santa Bárbara obtained no part of the reinforcement of artillerymen and infantry sent to California in 1796... the presidio was garrisoned by cuera

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<sup>43</sup> Bancroft, vol I (1963:669) footnote number 53

<sup>44</sup> Perissinotto (1998:223-225)

<sup>45</sup> Perissinotto (1998:255)

<sup>46</sup> Perissinotto (1998:241-243)

<sup>47</sup> Hardwick (2000)

<sup>48</sup> CA8, Vol XIV (1796: p 153-154, Adams)

<sup>49</sup> Perissinotto (1998:261)

## *Arms and Armament, Presidio Santa Barbara*

cavalrymen only. There was one brass 6 pounder and 3 smaller iron pieces at the presidio with 4 iron guns at the 3 coast missions, this was the armament in 1798.<sup>50</sup>

**1797, May:** Argüello reports postponement of departure of soldier armorer Rafael Arriola from Santa Barbara until his health improves, and states there is continued need for the services of Artisan J. Faustino Arriola who is assigned to Santa Barbara to make bridle parts.<sup>51</sup>

**1797, April 10:** Goycochea acknowledges receipt of memo (dated March 27) advising that he put himself in a state of ready alert against attempts at invasion. He is to activate troops, retired soldiers, citizens and Indians whom he has in his jurisdiction. As a result, sentries are posted on the beach of Mission La Purísima on a high ridge, another in front of the ranch of José Ortega, another at the mission of San Buenaventura, and another in Los Angeles on the ranch of Dominguez.

Goycochea drills troops daily in the handling of arms, but he suspends target practice in order not to renders armament useless. He also decides not to place any battery at the beach because 1<sup>st</sup> for the 6 caliber cannon there are only 118 cartridges and there is no gunner to service it; 2<sup>nd</sup> it does not help to put the gun on the anchoring-ground (since) at all parts of this coast they can anchor and disembark.

Every trooper keeps a horse within the presidio all night and by day they graze. Goycochea has a supply of cartridges and finishes fabricating more of them from the paper he has left. He distributes ammunition to escorts in the town. He gives the order that little by little without alerting the Indians, families with children withdraw from the coast out of cannon range to ease potential pressure on the small presidio garrison.

News of war has caused sufficient surprise among the Indians, and as they have dealt with the English when they were scouting these coasts, we should not doubt that giving them some glass beads they might follow their side ... Goycochea is of the opinion to reject the Indians as a dependable militia, for it is to be feared that they will fail us easily.<sup>52</sup>

**1797, April and June:** Goycochea acknowledges receipt of a memo from governor Borica warning that each presidio should put itself in a state of alert against invasion by the English. Troops are given daily drill in the handling of arms. Goycochea has decided against placing any battery of cannon on the beach at Santa Barbara because for the 6-caliber cannon, there are only 118 cartridges with the balls and there is no gunner and few troops to service it. In June of 1797 Goycochea reports to the governor the arrival of a master blacksmith who is to repair the armaments and perform similar work.<sup>53</sup>

### **1797, Dec. 31:**

128	cannon balls
100	cartridges with grape shot
118	cartridges of 6# shot
44	of unadulterated gunpowder
77 (arrobas?)	of sheathed lead
11	grape shot bullets

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<sup>50</sup> Bancroft, vol I (1963:666)

<sup>51</sup> CA9 (1797:59)

<sup>52</sup> CA8 (1797, April 10)

<sup>53</sup> Whitehead (1996: 148)

## *Arms and Armament, Presidio Santa Barbara*

73	shotgun bullets
242	cartridges
800	flints
<b>Issued in the entire year:</b>	
104	4 and 6 # cannon balls
14	cartridges of 6 # shot
19	of unadulterated gunpowder
77	lead plated
11	grape shot bullets
16	shotgun bullets
1,601	cartridges of the same
100	flints

### **There remains at this date:**

24	cannon balls, 4# and 6#
1	cartridge with grape shot
104	cartridges of 6# shot
25	cartridges of unadulterated powder
57	shotgun bullets
10,641	shotgun cartridges
700	flints <sup>54</sup>

**1797, March 28, Goycochea to Borica:** In exact fulfillment of the admonishments of your Grace which you were please to tender me in the communication of 13 of March last concerning the current circumstances of the war which our court has declared against the English nation I say

That the deplorable state in which this jurisdiction which I hold in my charge finds itself for defense in case the enemy sends some armada to its coasts and attempts to land does not excuse me from the obligation of making it known now to your grace who knows this truth better than I.

The eight cannons of which the artillery of this Presidio and its escoltas is composed; for the big one there are no people to service it for which I have made 118 cartridges with ball.

For the second there is no ball of its caliber which is more medium, and I do not dare to make grape shot for it because neither will it be able to be used no matter how heavy the cost if enemy ships land (?); so that it is useless, or only usable in the Presidio like the first; the more medium ones I am repairing, and putting in carriages but I fear they are not very good; because there is no ironsmith to do what is necessary; who also is needed to repair more than twenty muskets most of which have slight faults, and others which are missing the gunstocks and some residents who do not have arms could be armed with them.

And although I now count on the Indians to help us some, but it would be better to mistrust them, as they might follow the enemy as easily, so that I am doing all I can to install distrust for that nation in case it is necessary.

All the lead in slabs has been worked into balls and some large pellets and we are making a quantity of musket cartridges when I get the paper. All the arrangements you ordered are in

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<sup>54</sup> CA54 (1797: McHenry)

## *Arms and Armament, Presidio Santa Barbara*

effect and I am ready to defend all that your Grace has been pleased to put in my care and I will exercise all my resources in the defense of the nation.<sup>55</sup>

**1797-98:** A single 6 pounder was noted in the arsenal at Santa Barbara.<sup>56</sup>

**1798:** An iron 1 pounder, an iron 2 pounder, and an iron 3 pounder were listed at Santa Barbara.<sup>57</sup>

**1798:** There was one brass 6 pounder and 3 smaller iron pieces at the presidio with 4 iron guns at the 3 coast missions. This was the armament in 1798.<sup>58</sup>

<b>1798, Dec. 31:</b> Brevet Captain -	Goycochea, Felipe de
Ensign-	Cota, Pablo
Sergeants-	Olivera, Igancio (at Mission San Fernando)
	Ortega, José Maria (at Mission La Purísima)
	Ruiz, Francisco Maria (at Mission San Buenaventura)
Corporals-	Alvarado, Javier
	Romero, Juan
Soldiers-	

Aruz, Domingo	Higuera, Juan	Quintero, Clemente
Avila, José	Higuera, Ignacio	Ramirez, Bernardo
Avila, Francisco	Lara, Julian	Romero, José Antonio
Ayala, José	Leyba, Robino	Ruiz, José
Bermudez, Juan	Leyba, Juan	Sanchez, José
Bermudez, José	Leyba, Miguel	Sepúlveda, Manuel
Caravates, Salvador	Lugo, José Antonio	Solózano, Juan
Cordero, Estanistav	Lugo, Manuel	Valdés, Eugenio
Cortés, Nicolas	Lugo, Antonio Maria	Valencia, Juan
Cota, Mancino	Lugo, Miguel	Valenzuela, José
Cota, Guillermo	Motalvan, Laureano	Valenzuela, Vicente
Cota, Manuel	Navarro, Clemente	Vasquez, Antonio
Dominguez, José	Olivares, Juan	Villa, Vicente
Espinosa, Thomas	Orchanga, José	Ximenez, Hilario
Félix, Juan Manual	Palomares, José	
Féliz, José Ignacio	Pico, Miguel	
Fernandez, Rosalino	Pico, Javier	
Fragoso, José	Piña, Máximo	
Garcia, Acrlos	Polanco, José	
Gonzalez, Felipe	Quijara, Vicente	

<sup>55</sup> CA8, Vol XV (1797)

<sup>56</sup> Hardwick (2000)

<sup>57</sup> Hardwick (2000)

<sup>58</sup> Bancroft (Vol I:666)

## *Arms and Armament, Presidio Santa Barbara*

Invalidos (retired)-	Alvarado, Ignacio	Sergeant
	Cayuelas, Francisco	Corporal
	Cordero, Mariano	Soldier
	Félix, Anastasio	Soldier
	Garcia, Francisco	Soldier
	Lugo, Luis	Soldier
	Peña, Luis	Soldier

Totals:	01	Brevet Captain
	01	Ensign
	03	Sergeants
	02	Corporals
	54	Soldiers
	<b>61</b>	
	 7	 Retired (Invalidos) <sup>59</sup>

### **1798, Dec. 31: Artillery in the Presidio**

1	bronze cannon of	6 cal.
1	iron cannon of	3 cal.
1	iron cannon of	2 cal.
1	iron cannon of	1 cal.

### **Artillery at Mission San Buenaventura**

2	iron cannon of	4 cal.
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(suspect that these cannons were of bronze and were the ones originally noted at the presidio by Goycoechea in 1782)

### **Artillery at Mission Santa Bárbara**

1	iron cannon of	2 cal.
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### **Artillery at Mission La Purísima**

1	iron cannon of	2 cal. <sup>60</sup>
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### **1799, Jan. 22: Goycoechea requests the following:**

1	dozen mortars (cylinder to ignite and launch fireworks) of various calibers
12	pesos of bomb fireworks and their small kegs. <sup>61</sup>

### **1802, Jan. 30: Goycoechea requests the following:**

3	gross of aerial fireworks
2	dozen ground-runner fireworks
1	dozen of the same, serpent firecrackers <sup>62</sup>

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<sup>59</sup> CA15 (1798, December 31:Vol XVII)

<sup>60</sup> CA15 (1798, December 31,Vol XVII: 268-427)

<sup>61</sup> Perissinotto (1998:305)

<sup>62</sup> Perissinotto (1998:317)

## *Arms and Armament, Presidio Santa Barbara*

**1802, June 2:** Goycochea requests the following:

30                      name brand swords, trimmed iron, with scabbards<sup>63</sup>

**1803:** The high command considered and rejected a proposal by Borica and Arillaga to expand the chain of shore batteries to include a defense work (*castillo*) at Santa Bárbara..<sup>64</sup>

**1805, Jan. 31:** José Raymundo Carrillo requests the following:

50                      outfitted musket cases  
50                      good cartridge pouches  
50                      musket holders embroidered with pita thread  
2                        arrobas of assorted buckshot for ducks  
1                        sword with dragoon blade with silver decoration<sup>65</sup>

**1806:** Eight guns were charged to the presidio and were distributed among the neighboring missions, with the exception of 2 mounted on the presidio walls.<sup>66</sup> The presidio had 8 guns, all brass but one, 1 to 6 in caliber.<sup>67</sup>

**1808, Jan 14:** José Joaquín Maitorena and Arrillaga request the following:

8                        dozen good quality large knives  
6                        arrobas of buckshot for hares and ducks                      (152 pounds)  
                         Including 2 arrobas of birdshot                                      (51 pounds)  
2                        gross of aerial firecrackers: 1 of serpent firecrackers and 12 wheels<sup>68</sup>

**1810, Feb. 18:** José Joaquín Maitorena and Arrillaga request the following:

8                        gross of aerial fireworks, some with lights  
2                        gross of serpent firecrackers, one of runners, and 24 wheels  
2000                    flintstones for muskets<sup>69</sup>

**1816, Jul. 6:** In a letter from José de la Guerra y Noriega to Governor Sola, Guerra reports on the readiness of his district to operate against pirates. He reports on the state of individuals who are in the district of Santa Barbara with specifics of class and residence, and who are suited to take arms. He has also sent for cannon from San Buenaventura and Purísima and from Santa Ynés and San Fernando.

Guerra reports that he needs more people to operate the cannon. He has already brought 3 cannons from San Buenaventura and Santa Ynés and the two *de a 2* (2 pounders) from San Fernando and Purísima do not have cannon balls. He reports that his increase in artillery requires a larger number of people. He requests that militia from other districts lend their aid and that he has not sent ammunition to San Diego. Guerra reports that he will follow the system of defense as commanded. Sola recommends the use of *bala roja* (*hot shot*) against the pirates. Guerra replies that it sounds good but that he has no one who knows how to apply it.<sup>70</sup>

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<sup>63</sup> Perissinotto (1998:321)

<sup>64</sup> Williams (1993:83)

<sup>65</sup> Perissinotto (1998:333-335)

<sup>66</sup> Phillips (1927:42)

<sup>67</sup> Bancroft (Vol II:119)

<sup>68</sup> Perissinotto (1998:349)

<sup>69</sup> Perissinotto (1998:357-360)

<sup>70</sup> CA13 (1816, July 6:Vol XX: 448-451, 456)

## *Arms and Armament, Presidio Santa Barbara*

Below is a list or state of the people who are in the district, capable of bearing arms, with a note of those (arms) which they have, their class and condition of their residence excluding the militia of Artillery which has joined the Presidio of San Diego:<sup>71</sup>

<b>Town of Nuestra Señora de los Angeles (retired soldiers, pensioners)</b>	<i>Pistol</i>	<i>Musket</i>	<i>Lance</i>	<i>Sword</i>
4 Sergeants		2		2
1 Corporal				
15 Soldiers	2	4	2	4
70 Residents	2	7	1	9
<b>Totals:</b>	4	13	3	15

<b>Mission of San Fernando (retired soldiers)</b>	<i>Pistol</i>	<i>Musket</i>	<i>Lance</i>	<i>Sword</i>
1 Soldier				
1 Resident				
<b>Totals:</b>				

<b>Rancho of Simi (retired soldiers)</b>	<i>Pistol</i>	<i>Musket</i>	<i>Lance</i>	<i>Sword</i>
1 Soldier				
3 Residents		1	1	1
<b>Totals:</b>		1	1	1

<b>Mission San Buenaventura (retired soldiers)</b>	<i>Pistol</i>	<i>Musket</i>	<i>Lance</i>	<i>Sword</i>
1 Soldier				
<b>Totals:</b>				

<b>Rancho Nuestra Señora del Refugio (retired soldiers)</b>	<i>Pistol</i>	<i>Musket</i>	<i>Lance</i>	<i>Sword</i>
1 Sergeant	2	1		1
1 Soldier				
9 Residents		4		2
<b>Totals:</b>	2	5		3

<b>Mission La Purísima (retired soldier)</b>	<i>Pistol</i>	<i>Musket</i>	<i>Lance</i>	<i>Sword</i>
1 Soldier	2	1		1
109 Persons	8	20	4	20
<b>Totals:</b>	10	21	4	21

<sup>71</sup> CA13 (1816, July 6:Vol XX: 111-113, machine 112-114)

## *Arms and Armament, Presidio Santa Barbara*

<b>Presidio Santa Barbara (retired soldiers)</b>	<i>Pistol</i>	<i>Musket</i>	<i>Lance</i>	<i>Sword</i>
1 Corporal				1
8 Soldiers		4		1
17 Residents		2		
<b>Totals:</b>		6		2

**1823, Jan. 20:** List of individuals who comprise the local militia company resident in the pueblo of Los Angeles in the jurisdiction of the presidio of Santa Barbara, January 20, 1823, recognized to date as having arms. Of the 95 individuals listed only 9% of them are armed with the following:<sup>72</sup>

	<i>Gun</i>	<i>Musket Carrier</i>	<i>Cartridge</i>	<i>Lance</i>	<i>Sword</i>
Antonio Reyes				1	1
Antonio Ygnacio Avila	1			1	1
Don Diego Olivera	1				1
Don Juan Ballesteros	1	1		1	1
Joaquín Ortega	1				1
José de Jesus Rodriguez	1			1	1
José Ortega					1
Manuel Gonzales	1				
Vicente Sánchez	1	1		1	1
<b>Totals:</b>	7	2		5	8

**1824:** A Field piece is noted at Santa Barbara and may have gone out with the Portilla expedition of 1824.<sup>73</sup>

**1842:** A reference from an account by Eugene Dufloat du Mofras indicates that there was a battery or castillo at Santa Barbara. This was added sometime between 1804 and 1842.<sup>74</sup>

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<sup>72</sup> Geiger (1972: 328-331)

<sup>73</sup> Hardwick (2000)

<sup>74</sup> Williams (1993:123)



## *Arms and Armament, Presidio Monterey*

**1770, July 1:** In a progress report dated July 1, 1770, Pedro Fages made reference to a small temporary structure which served the presidio as a powder magazine. The initial complement of artillery for the garrison were four bronze cannons on naval mounts, and two campaign cannons along with various munitions and devices for handling the guns.<sup>75</sup>

**1771, June 20:** Colonists labored to complete a guardhouse for the powder magazine, a detached structure that measured four varas square (about eleven feet).<sup>76</sup>

**1773, March 13:** Serra penned the following description of the presidio as it appeared in 1772. "...Its stockade is of timbers with ravelins on the four corners, in each of which there is a bronze cannon..."<sup>77</sup>

**1773:** The barracks buildings of the presidio were apparently equipped with individual beds, rather than long sleeping benches, as was customary elsewhere in the Spanish empire during the later 18<sup>th</sup> century.

.... In the north wing there are two storehouses for food and for royal property. Attached to this are two small rooms .... The first serves as a prison, and the second as guard house and a sleeping quarters for soldiers (on guard duty) with a rack for firearms inside with (and) another outside..<sup>78</sup>

At about 15 minutes walking distance from the presidio, on the other side of the estuary is the powder magazine, four varas (11 feet) square built of poles plastered inside and out. It has its door and lock. At a distance of four varas (11 ft.) there is a stockade of poles four varas high. At a musket shot away leeward to the northwest, in which the wind prevails for the greater part of the year, is a small house four varas (11ft) square for soldiers who stand guard.<sup>79</sup>

**1778:** A visiting naval officer in 1778 described the presidio as follows:

..The defenses of this presidio consist of two four-pounder cannon. One of these guns defends the post from the open country to the north. The other protects the southern approach. All the fortifications have been built in adobe. They have created many gunslits where the defenders can shoot at attackers without being exposed to enemy fire.<sup>80</sup>

**1781:** In 1781 the presidio had two cannon. These weapons were equipped with powder scoops (*cucharas*), ram rods (*atacadores*), and canister shot (*cartuchas de metralla*).<sup>81</sup>

**1785:** Nicolás Soler noted that a powder magazine was located inside one of the corner bastions: "...esta repuesto se mantiene sobre un angulo de la muralla que sirve de revellin.." <sup>82</sup>

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<sup>75</sup> Williams (1993:12)

<sup>76</sup> Williams (1993:14)

<sup>77</sup> Williams (1993:16)

<sup>78</sup> Williams (1993:19)

<sup>79</sup> Williams (1993:20)

<sup>80</sup> Williams (1993:32)

<sup>81</sup> Williams (1993:36)

<sup>82</sup> Williams (1993:36)

## *Arms and Armament, Presidio Monterey*

### **1792, Vancouver visit:**

...At each corner of the square is a small kind of blockhouse, raised a little above the top of the wall, where swivels might be mounted for its protection. On the outside, before the entrance into the presidio, which fronts the shore of the bay, are placed seven cannon, four 9 pounders and three 2 pounders, mounted; these, with those noted at St. Francisco, one 2 pounder at Santa Clara, and Four 9-pounders dismounted, form the whole of their artillery. These guns are planted on the open plain ground, without any breastwork or other screen for those employed in working them, or the least cover or protection from the weather.

The four dismounted cannon, together with those placed at the entrance into the presidio, are intended for a fort to be built on a small eminence that commands the anchorage (Fort Hill). A large quantity of timber is at present in readiness for carrying that design into execution ...<sup>83</sup>.

Archibald Menzies, a naturalist on the Vancouver expedition provides the following account:

Six 9 pounders and 3 smaller ones were mounted on carriages before the entrance and we saw four 9 pounders without carriages laying on logs of wood on a small eminence abreast of the anchorage, and these we believed were all the artillery which the settlement at this time could boast of.<sup>84</sup>

**1792, Castillo project:** As a result of change of strategy, efforts to defend the harbor of Monterey shifted from the presidio proper to a new location. Work at the site began, without viceregal approval, as result of the efforts of Juan Francisco de la Bodega y Quadra, commandant of the Naval Department of San Blas. During 1792, he became concerned about the lack of sea defenses at Monterey. Bodega was in California in connection with an expedition to Nootka Sound. Traveling a short distance ahead of Vancouver, he was particularly sensitive to the Englishman's interest in weak Spanish defenses in the Pacific.

Bodega selected the site for a new battery, a nearby "hill that dominated the port". On October 29, he sent to shore a set of equipment that he planned to install in the fort. These items include 4 bronze 12 pounder tubes; the gun carriages (*cureñas*); wooden elevation blocks (*almohadillas*); ramrods (*baquetas*) lead bars for ammunition (*planchadas de plomo*); crow bars (*pies de cabras*); gun handling fittings and related tools (*chabetas, espeques, sotrozos sueltos*); powder scoops; a wooden cartridge box (*guarda cartuchos de madera*); linen cartridges (*cartuchas de lienzo*); bags of canister ammunition without powder (*saquillos de mertralla – sin polvera*); and canon balls (*balas*).

After Bodega departed, work continued at the site, which was located about a mile away from the main base. Bodega's battery was known as *esplanade de Monterey* (gun platform of Monterey). Colonial documents would refer to structure as *batería o castillo de San Joaquín de Monterey* or often simply *El Castillo*. When he returned to San Blas,

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<sup>83</sup> Williams (1993:62)

<sup>84</sup> Williams (1993:63), there appears to be a discrepancy in the number of cannon observed by Menzies and Vancouver in 1792

## *Arms and Armament, Presidio Monterey*

Bodega informed the viceroy of the actions he took in creating the first Monterey battery. He noted that work on the battery was continuing in his absence. Bodega also notified the viceroy that he was drafting provisional plans for similar batteries in San Francisco and San Diego.<sup>85</sup>

### **1793, Vancouver visit:**

...the cannon, which on our former visit, were placed before the presidio, were now removed to the hill, mentioned at that time as intended to be fortified for the purpose of commanding the anchorage. Here is now erected a sorry kind of barbette battery [cannons mounted without crenellated ramparts], consisting chiefly of a few logs of wood irregularly placed; behind which those cannon, about 11 in number, are opposed to the anchorage, with very little protection in the front, and on their rear and flanks entirely open and exposed.

The garrison was saluted with 13 guns which compliment was returned with an equal number from a few guns that appeared to have been recently placed on the summit of a small eminence close by us to the westward of the anchorage; the number of guns on this new fort appeared to be about 10 or a dozen, and from their reports they seemed to be of different sizes; All their salutes were returned last year from 5 or 6 guns that stood before the gate of the presidio, but as these were not to be seen there now, it is probable that they formed a part of the number on this commanding eminence which was to guard the anchorage.<sup>86</sup>

**1793, Bodega castillo plans:** In February of 1793, Bodega forwarded a detailed proposal for building a new chain of coastal forts to viceroy Revilla Gigedo. The castillos were to be enclosed with adobe and canons were to project through a row of merlons (*merlones*). The gun platform (*esplanada*) was to be built of wood. The viceroy and his advisors generally liked what they saw in Bodega's plans, but they did not wish to authorize construction of costly masonry fortifications. Instead California gun batteries were to consist of simple wooden gun platforms and trench works (*esplanadas o trincheras*).

Leatherjacket soldiers who formed the presidio garrison had received only minimal training in the use of artillery. Consequently, viceroy Revilla Gigedo decided to send new troops, including professional gunners, to the presidios of Alta California. In 1793 governor Arillaga reported that battery construction projects were not going well. All troops were short of powder. Monterey was protected by a mere 8 cannon and 4 small swivel guns (*pedreros*). The provisional battery started by Bodega was still incomplete. If the viceroy wanted effective defense, he would have to send more supplies, men, and artillery. He especially wanted an officer that could serve as a constable for the batteries, and a master carpenter to help with construction of the gun platforms. Arillaga also sent word that he needed a set of signal flags to communicate effectively with ships in the harbor.<sup>87</sup>

**1794, castillo construction team from San Blas:** Contrary to the viceroy's orders for simplicity in the gun platforms, logs were replaced by tower-like structures of adobe and

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<sup>85</sup> Williams (1993:77-78)

<sup>86</sup> Williams (1993:63)

<sup>87</sup> Williams (1993:78-81)

## *Arms and Armament, Presidio Monterey*

gun ports were faced with fired bricks due to the wet climate. The castillo projects began to exceed the original proposal approved by the viceroy. The viceroy was seriously concerned about having a team of artisans building formal defenses without the benefit of a professional military architect. The engineer Miguel Costansó reaffirmed general opinions of earlier experts that construction in regular stone and lime cement was too expensive to be employed. Instead simple batteries of 8 twelve pound cannon should have been constructed using earth with revetments of adobe. This type of defense was originally proposed for San Diego, Monterey, and San Francisco.<sup>88</sup>

**1795:** The battery at Monterey was listed as having 10 guns with two bronze 3 pounders, one 6 pounder, and seven 8 pounders. These weapons were accompanied by a shipment of related equipment. Some wooden items used at the castillo were manufactured in Monterey. All of the artillery pieces were mounted on naval carriages.<sup>89</sup>

**1796, Córdova assigned job of modernizing castillos:** Alberto Córdova was assigned as an architect in the job of modernizing fortifications that defended California.. He was to put special emphasis on the coastal batteries. He was not impressed by the defenses built by the San Blas team. He described the castillo at Monterey as follows:

... for the defense of the Bay of Monterey there is a battery of ten mounted cannon of small caliber; seven 8 pounders, one 6 pounders, and two 3 pounders, which would only be able to defend the boats that an enemy or corsair would try to take. To defend the port they are useless because ships could anchor out of reach of these cannon.

Córdova decided to modify the battery at San Francisco and develop completely new designs for Monterey and San Diego. At Monterey he added a revetment to the seaward side of the fort. He then worked on the wooden platform for the cannons, the powder magazine (*casamata*), and a barracks (*cuartel*) for the detachment of Royal artillery.

**1797, Córdova evaluation:** Monterey castillo was a victim of rapid erosion and rot. In and inspection held in that year he judged the site to be once again completely worthless. At this time the castillo had eleven artillery pieces.

**1799, Bodega improvements at the castillo:** In this year Bodega personally installed a new set of cannon at the fort. However in the next year the governor reported that the battery had been reduced to eight small guns. No Royal Artillery was available to man the castillo.

**1801:** The governor requested an immediate shipment of powder to alleviate a dangerous shortage that had developed at the castillos in California. The weather was particularly hard on the battery at San Francisco. Rains had all but demolished it before 1800. All the California batteries proved to be maintenance headaches.

**1809:** An inspection of San Diego's Fort Guijarros showed that its gun platform, built from Monterey lumber, had completely rotted out.

**1810:** A new flagpole was installed at the castillo.<sup>90</sup>

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<sup>88</sup> Williams (1993:82)

<sup>89</sup> Williams (1993:82)

<sup>90</sup> Williams(1993:82-83)

## *Arms and Armament, Presidio Monterey*

### **1815: Peter Corney (English seaman) account:**

.. of about fifty houses of one story, built in a square, surrounded by a stone wall, about eighteen feet high; on the south side of the square stands the church; on the west, the governor's house; and on the east side the lieutenant-governor's house and kings stores; on the north side is the grand and principal entrance, gaol, and guard-house, and in the middle are two field pieces, 6 pounders... the fort stands on a hill, about one mile to the westward of the town; just above the landing place, it is quite open on the land side, and embrasures thrown up on the sea side mounting ten brass 12 pounders, with a good supply of copper shot. At the landing-place, close to Captain Vancouver's Observatory, is a battery of two long nine-pounders, manned by about thirty soldiers.<sup>91</sup>

**1817:** Sola improvements: The old earthen works at the castillo were strengthened with fire brick masonry. Other features were added to the battery which included a sentry box (*garita*) and a new powder magazine.

**1818, November 20 – Bouchard raid:** Bouchard's Río de la Plata flotilla was composed of 2 ships, the thirty-eight gun frigate, the *Argentina*, and the twenty-six gun, *Santa Rosa de Chacabuco*. The vessels were manned by an odd assortment of Hawaiians, Malaysians, Filipinos, Englishmen, Americans, Spaniards, Portuguese, and Criollos. Peter Corney, who had visited Monterey in 1815, commanded the *Santa Rosa*. The protectors of Monterey were initially deployed at the castillo, and in the shore battery near the customhouse. The latter position apparently mounted three 18 pounders, protected by a sand and fascine barrier.<sup>92</sup>

The Santa Rosa engaged the castillo in a two hour gun duel. There are no reliable estimates on how many shots were fired. Bouchard broke off a frontal attack when shots from the castillo or a small temporary battery on the beach almost sank the Santa Rosa. The insurgents then took advantage of Corney's observations of the fort made in 1815, attacked and captured the fort from the land side. Before Bouchard left Monterey, he ransacked the city and presidio. The artillerymen's house at the battery was burned as was the wooden esplanade. Only two cannon were left in a serviceable state.<sup>93</sup>

Here is Corney's account:

The Commodore ordered me into the bay, and to anchor in a good position for covering the landing, while he would keep his ship under way, and send his boats to assist me. Being well acquainted with the bay I ran in and came to at midnight, under the fort; the Spaniards hailed me frequently to send a boat to shore, which I declined. Before morning they had the battery manned, and seemed quite busy. I got a spring on the cable, and at daylight opened fire at the fort, which was briskly returned from two batteries, the one being so much above us that our shot had no visible effect, the Commodore came in with his boats, and we landed at Point Pinos, about three miles to the westward of the fort; and before the Spaniards had time to bring their fieldpieces to attack us, we were on the march against it. We halted at the foot of the hill where it

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<sup>91</sup> Williams (1993: 92-93)

<sup>92</sup> Williams (1993: 98)

<sup>93</sup> Pritchard (1968: 10-11)

## *Arms and Armament, Presidio Monterey*

stood for a few minutes, beat anchorage and rush up, the Sandwich Islanders (Hawaiians) in front with pikes. The Spaniards mounted their horses and fled; a Sandwich Islander was the first to haul down their colors. We then turned the guns on the town, where they made a stand, and after a few rounds, the Commodore sent me with a party to assault the place while he kept possession of the fort. As we approached the Spaniards again fled, after discharging their field pieces, and we entered without opposition.<sup>94</sup>

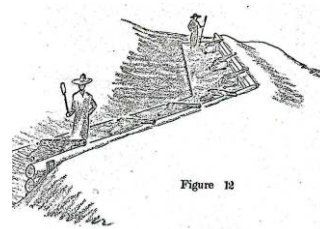
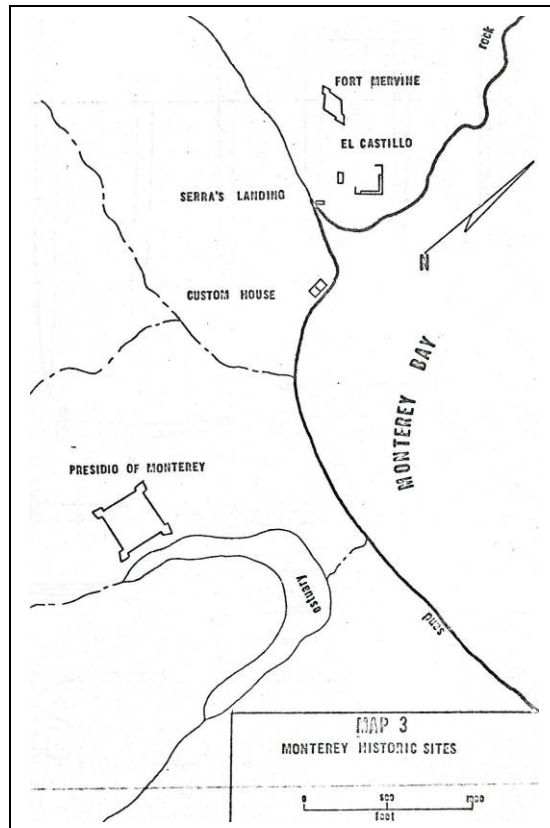


Figure 12

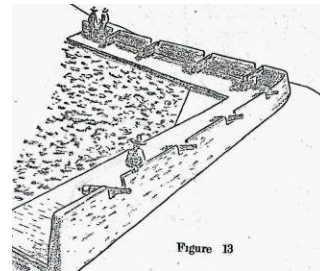


Figure 13

Map of major structures at Monterey during Spanish times. Figure 12 shows the castillo 1793-96. Later in 1818 it evolved to what is pictured in Figure 13. Drawings are from Pritchard's 1968 Archeological Report

**1820:** A Vallejo map dates from this time which shows the castillo battery as having a semicircular plan and massive crenellations. There is also a rectangular powder magazine labeled "*casamata*".<sup>95</sup>

<sup>94</sup> Williams (1993:98)

<sup>95</sup> Williams (1993:101)

## *Arms and Armament, Presidio Monterey*

**1830:** The harbor battery bristled with twenty cannon, including thirteen iron guns and seven brass tubes. These artillery pieces ranged in caliber from 4 to 8 pounders.<sup>96</sup>

**1837: Belcher account –**

..The fortification of which plans must not be taken, consisted of a mud wall of three sides, open in the rear, with breastworks about three feet in height; with rotten platforms for seven guns, the discharge of which would annihilate their remains of carriages.<sup>97</sup>

**1842: du Mofras account-**

... The presidio has been demolished: the fort, which is nothing more than a battery, has only three bronze cannon mounted on gun carriages that are in working order. These cannon, which were cast in Manila or Lima in the 17<sup>th</sup> century, differ in caliber from 8, 12, and 16 pounders....

... A small barbette battery known as El Castillo stands on the west side of the anchorage, a few miles off shore. On the sea approach, its sole support is a small earthen embankment, four feet high. In the vicinity are a crumbling building inhabited by five soldiers and a small shack used as a powder magazine. The battery has neither moat nor counterguard, and can be readily approached on all sides since it is on a level with the surrounding land. In conjunction with the presidio its situation is strategic, for El Castillo properly built and equipped could sweep with its guns any ship that approached moorings... The ancient gun carriages, the two or three hundred copper cannon balls, the trucks, the ammunition chests of old Spanish material, all lie abandoned on the ground. The defense consists of two useless brass pieces, a brass falconet, two 12 pounders, a 16 pound gun mounted on half-rotten gun carriages, and two pieces of eight mounted on cart wheels. During public celebration the latter drawn by oxen, are used to fire off volleys and salute warships. Years ago these pieces, as well as those at San Diego and Santa Bárbara, were cast in bronze in Peru or Manila, and bear the insignia of Spain with the inscription Real Audiencia de Lima de Filipinas. Opposite the battery stands the flagstaff, visible to ships entering the harbor. Obviously the so-called castle is incapable of withstanding attacks and its sole function is to reply to cannon fired during fogs by ships searching for anchorage. As a matter of fact the Spaniards were wise enough to establish a small battery near Point Pinos, but few traces of it now remain.<sup>98</sup>

**1842, October 20, Thomas Catesby Jones account:**

At twelve our forces took possession of the fort at Monterey. The Mexicans abandoned the works as we marched up the ravine... On reaching the summit of the hill, about twenty yards

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<sup>96</sup> Williams (1993:112)

<sup>97</sup> Williams (1993:122)

<sup>98</sup> Williams (1993:124)

## Arms and Armament, Presidio Monterey

from the fort, we found nine long brass guns, concealed by green branches of trees, put in order of threes, above each other, commanding the whole ravine, these guns loaded with copper grapeshot and escopette (sic.) balls, all primed, and with the linstocks lighted and at hand, burning within a few inches. (In taking possession of the fort, we immediately unloaded these guns, and removed them to the breastworks again.) Every gun had a name – Jesus, San Pedro, San Pablo and other saints.

### Alonzo Jackson account:

The stormers marched up to the fort, which was situated on a high hill fronting the sea. Here were the Mexicans Colours flying. These we soon hauled down and hoisted the stars and stripes... The battery of the fort consisted of fourteen long brass and iron guns, with which and effectual resistance might have been made had they been properly handled. We found in the magazine about a ton of powder, with any quantity of copper and iron shot. As soon as we had possession of the fort we went to work to prepare for an attack from the inland... we converted the magazine into a sleeping apartment for the officers, having hauled all the powder out into a sentry's box standing outside... We loaded all the guns nearby to the muzzle with grape and canister. A match for each gun was lighted and kept burning.<sup>99</sup>



A crude watercolor of the assault was done by William Henry Meyers in 1842. To the right is the battery with a crude glacis (slope), a flagpole, a garrison building, and 6 cannon mounted á barbette). Picture is from *Spanish West*, Daniels, ed. (1976:187)

<sup>99</sup> Williams (1993:126)



## *Arms and Armament, Presidio San Francisco*

### **Castillo de San Joaquín, San Francisco:**

The Royal Spanish fort which guarded the strait into San Francisco Bay which the Americans later would name the Golden Gate, is gone. It was demolished early in the 1850s, and even the white cliff on which it stood was cut down to near sea level to accommodate construction of a new brick-and-masonry fort completed before the Civil War, a fort which still stands.

Yet San Francisco retains some of the most significant armament of the old Castillo, bronze guns that were a century old when they first arrived, guns of such beauty of design and decoration that they survived the scrapping that was the fate of lesser iron weapons.

Spain and Great Britain contested ownership of this part of the New World, and were unable to settle on a boundary between their possessions in the resolution of the Nootka controversy during which Spain relinquished claims to the far northern coast. This unresolved question or imperial rivalry coupled with British naval visits to San Francisco and Monterey alarmed Spanish officials and spurred them to build a fort the need for which had been discussed for fifteen years.

One day after the arrival in San Francisco Bay of the British frigate *H.M.S. Discovery* captained by George Vancouver, Comandante Alferéz Hermenegildo Sal reported to the Spanish governor of Alta California on October 31, 1792, that he had but one cannon on hand, and suggested the mounting of a battery of ten or twelve guns on the *Cantil Blanco* or white cliff at the point south of the strait.

Apparently in response to this fear of British incursion, on July 24, 1793, the Spanish royal frigate *Aranzazu* delivered to San Francisco guns and other military stores including, it is believed, the six bronze guns cast in Peru more than a century earlier which survive today. When later that year the British barkentine, *Chatham*, arrived in San Francisco Bay, the botanist on board, Archibald Menzies reported that the *Aranzazu* and other Spanish vessels

had brought some reinforcements to the settlement. together with a supply of warlike stores & some Ordnance, for 8 long brass four-pounders were laying on the Beach at the landing place & a considerable quantity of shot of different sizes, so that if we might judge from appearances & the great preparations now going forward. they seem to have taken some alarm at the defenseless state of the settlement, for in our former visit (November 1792) we only observed 1 cannon in the whole place and that simply lashed to a log of wood, but we now observed a number of people employed on the eminence on the south side of the entrance clearing away the ground for the purpose of erecting a battery for the defense of the harbor & a more suitable situation could not be fixed on, as it perfectly commanded the entrance.

Construction of the Castillo had actually begun in August 1793, the work being done by thirty Indians drafted from Mission Santa Clara, as well as 23 yokes of oxen used to haul timber, guns, and both fired brick and adobe or sun-dried mud brick. The Castillo whose construction Menzies witnessed that fall was completed and dedicated on December 8. 1794.

## *Arms and Armament, Presidio San Francisco*



*Diorama of Castillo de San Joaquin*

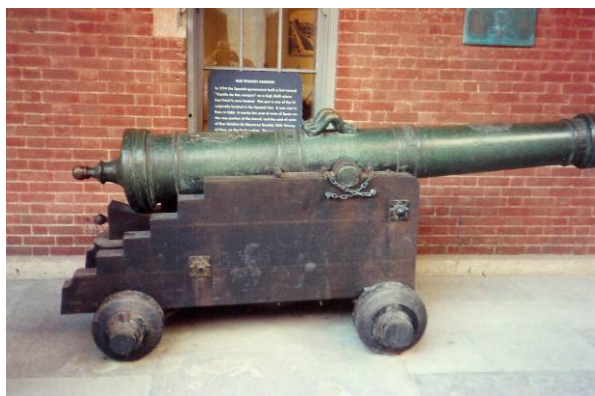
Unfortunately, *Castillo de San Joaquin* was poorly built and went through a long history of deterioration and repair, and more deterioration and redesign, and more deterioration and ultimate neglect. The one relatively constant factor was the ordnance, and even it changed to some extent. A report in September 1796 listed six iron guns and eight guns presumably of bronze, which were called at that time 8-pounders. The years passed. Mexico revolted against Imperial Spain and won freedom by 1822; the change little-affected Alta California. In time, the Presidio and the Castillo were abandoned by the Mexican governor in favor of establishing a new barracks at Sonoma and of the eight bronze and eight iron guns reported at the Castillo in 1837, two of the former were moved to Sonoma. These were probably the guns named *Poder* and *San Francisco*.

In 1846 Fremont seized the deserted Castillo. At that time he found 3 bronze and 7 iron guns in the Castillo. Many of the guns were lying in the dirt because their carriages had rotted away. The guns were spiked by driving iron files into the touch holes. The gun named *San Pedro* still has the remains of one of the files in its touch hole. In July of 1846 Commodore Sloat attempted refurbishment of some of the brass guns by removing spikes from them. Finally the brass guns made their way back to the presidio. Two of them flank the entrance to the officer's club; two flank the flagpole on the parade ground. Two guns, the *San Martin*, and the *San Domingo* were moved to the army museum and mounted on replica wooden carriages.<sup>100</sup>

Name of Gun	Date	Maker	Coat of Arms/Inscription	Location
<i>SAN MARTIN</i>	ANOD 1684	D Hose De Cubas ME FCID	(Arms of Don Meleher de Navarra) y Rocafal, 26 <sup>th</sup> Viceroy of Peru	Fort Point on carriage
<i>S DOMINGO</i>	1678	ALEXO DE TEXEDA	(Arms of Don Diego Fernandez de Cordoba, 17 <sup>th</sup> Viceroy of Peru	Presidio at Museum
<i>SAN FRANCISCO</i>	AD 1679	CUBAS ME FECIT	(Don Baltasar de Cueva Henriquez y Saavedra, 24 <sup>th</sup> Viceroy of Peru	Presidio at Flagpole
<i>LA BIRGEN DE BARBANEDA</i>	ANOD 1693	CUBAS ME FECIT	(Don Melchor Puertocarrero Laso de Vega, 27 <sup>th</sup> Viceroy of Peru)	Presidio at Flagpole
<i>PODER</i>	AD 1673	SS DE CUBAS	GOVERNANDO LOS SEÑORES DE LA REAL AVDIENCIA DE LIMA	Presidio Officer's Club
<i>S PEDRO</i>	ANDE 1673	ANTIO DE RIVA	GOVERNANDO LOS SEÑORES DE LA REAL AVDIENCIA DE LIMA	Presidio Officer's Club

<sup>100</sup> From a Presidio San Francisco handout by Gordon Chappell and information from Watson (1936)

## *Arms and Armament, Presidio San Francisco*



*SAN MARTIN, 1684*



*LA BIRGEN DE BARBANEDA, 1693*



*PODER and S PEDRO, 1673 Crest is from PODER on the left*

## Glossary

**Adarme:** Unit of measure roughly equivalent to .05780 troy ounces. 16 adarmes are equivalent to one Spanish ounce or *onza*. 17.3 adarmes are equivalent to one troy ounce.

**Alférez:** Sub lieutenant or second lieutenant of a presidial company

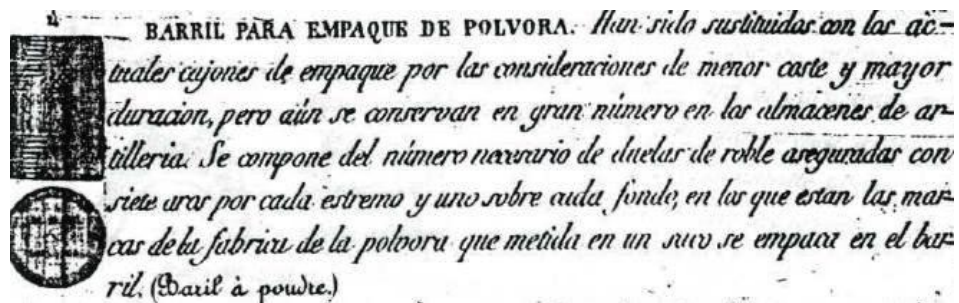
**Armero:** Armourer or gunsmith

**Arroba:** Unit of measure equal to 25 Spanish pounds and 25.367 English pounds.

**Atacador:** Ram rod

**Bala Roja:** Literally red ball or hot shot. In 1816 Governor Sola wants Jose de la Guerra to use this against pirate ships, but Guerra is unable to do so since he has no one able to apply the use of same.

**Barril Para Empaque de Polvera:**



*Barril para empaque de polvora Han sido sustituidos con las actuales cajones de empaque por las consideraciones de menor coste y mayor duracion, pero aún se conservan en gran numero en las almacenes de artilleria. Se compone del número necesario de duelas de roble aseguradas con siete aras por cada extremo y uno sobre cada fondo, en los que estan las marcas de la fabrica de la polvora que metida en un saco se emparar en el baril. (Baril de Poudre)<sup>101</sup>*

Barrel for storing (packing) (gun) powder (Barrels) have now been substituted for (the old) storage boxes (of gunpowder). This is because of the considerations of low cost and great strength, but also because they can be stored in great numbers in powder magazines for artillery. The barrels are made up of the necessary number of vertical elements of oak held in place by (a set of) seven rings at the top and one (a set of seven) at each bottom. On the barrels that are marked with the place of manufacture of the powder, the powder is inserted in a cloth bag packed into the barrel (French - Baril de poudre).

The rings mentioned here are probably made from some organic material. In cases where iron bands are used they are usually referred to as “aras de hierro.”<sup>102</sup>

<sup>101</sup> Agar 1866

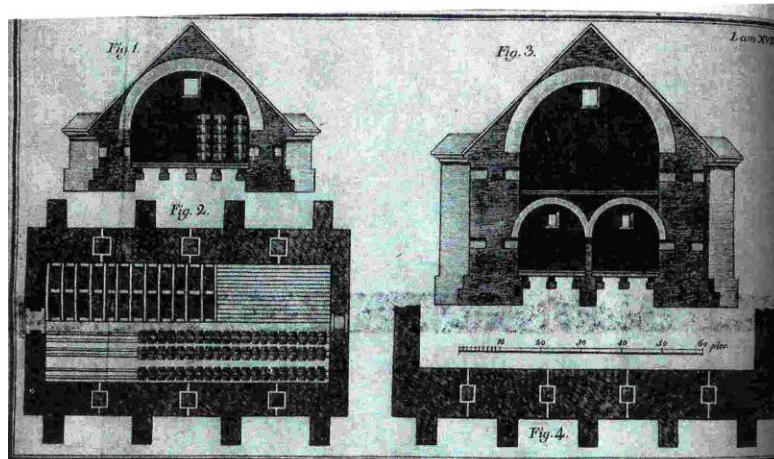
<sup>102</sup> Translation by Jack Williams (2006)



## Glossary

**Cartucha de metralla:** Canister shot

**Casa Mata:** Casemate or powder magazine. It was supposedly constructed after 1782 at the Presidio of Santa Barbara in conformance with the requirements for Regulations of Presidios. The Casemate at Santa Barbara held weapons, powder, flint and shot. According to Soler inspection of 1788, it was located outside the walls of the presidio.



Almacenes de pólvora «a prueba de Bomba».

(Cit. Sánchez Taramas, M. «Tratado de Fortificación». Barcelona 1768)

Al viejo concepto del siglo XVII —sobre colocación en los baluartes y cortinas, según técnicas italianas— sucede en el XVIII, la mejora descubierta por Vauban. Las «fig. 1 y 2» (70 pies de largo y 28 de ancho; muros de 11 de grosor y 9 de alto; bóveda de medio cañón «a 3 rosas de ladrillo cubierta a caballete en ángulo de 90 grados»; contrafuertes; aspilleras de ventilación «a dado»; ventana y puertas dobles cerca de protección, y la pólvora en barricas de «a 100 Libras») fueron los modelos utilizados en América. Las «fig. 3 y 4» no tuvieron tanta aceptación en España, y en las fortificaciones americanas es difícil encontrar un ejemplar.

**Comandante:** Term used for the presidial commander

**Cuerña:** Gun carriage

**Cuchara:** Powder scoop

**de a 24:** Size of shot i.e. using 24-pound cannon balls. The bore size of cannons of this type was about 6 inches.

**de a 18:** Size of shot i.e. using 18-pound cannon balls. The bore size of cannons of this type was about 5.2 inches. Cannons firing this size shot and greater were often referred to as siege guns.



Spanish 18 pounder iron cannon from the Alamo in San Antonio, Texas. The bore measures about 5.25 inches

## Glossary

- de a 12:** Size of shot i.e. using 12-pound cannon balls. The bore size of cannons of this type was about 4.8 inches.
- de a 8 or 9:** Size of shot i.e. using 8 or 9-pound cannon balls. The bore size of cannons of this type was about 4 inches.
- de a 6:** Size of shot i.e. using 6-pound cannon balls. The bore size of cannons of this type was about 3 ½ inches.
- de a 4:** Size of shot i.e. using 4-pound cannon balls. The bore size of cannons of this type was about 3 ¼ inches.
- de a 3:** Size of shot i.e. using 3-pound cannon balls. The bore size of cannons of this type was about 2 ¾ inches.
- de a 2:** Size of shot i.e. using 2-pound cannon balls. The bore size of cannons of this type was about 2 3/8 inches.
- de a 1:** Size of shot i.e. using 1-pound cannon balls. The bore size of cannons of this type was about 2 ¼ inches.<sup>103</sup>

**Grano:** A monetary unit of silver. 1 peso was 96 granos. 1 real was 12 granos

**Escopeta:** Typically a carbine-style, smooth-bore musket.

**Invalido:** A retired soldier

**Librmientos:** Orders or warrants to issue munitions usually from the casemate

**Pedrero:** A pedrero is a light gun up to about a 3 pounder, normally mounted as a swivel gun, but can be mounted on a field carriage<sup>104</sup>. Literally meaning stone thrower, this term can also refer to a large caliber bronze mortar.

**Peso:** A monetary unit of silver equivalent to 96 granos or 8 reales, hence the term “pieces of eight reales”. In the first half of the nineteenth century, a *peso* was equivalent to one U.S. dollar and two Russian rubles.

**Pound:** Unit of measure roughly equivalent to English pound. Another term for pound is *libra*. It is 16.226 English ounces or 1.014 English pounds. One *libra* is 16 *onzas* and 256 *adarmes*.

**Qunital:** Unit of Spanish measure. 1 quintal is 101.467 English pounds or 100 *libras* or Spanish pounds.

**Real:** A monetary unit of silver. Eight reales make a peso. A real is equivalent to 12 granos.

**Repuesto de polvera:** Storehouse for powder

**Tercio:** A bundle or bale

**Vara:** Spanish yard of about 33 inches

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<sup>103</sup> Bore sizes from (Brinkerhoff and Chamberlain, 1972: Chapter 6).

<sup>104</sup> Personal communication with Jack Williams, who claims that this term is commonly used in other presidios to refer to light guns. See also Ives (1984:164).

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