

Originally designed in 1759 by a British officer named Robert Melville (1723-1809), carronades were adopted by the Royal Navy in 1779, under the sponsorship of Admiral Sir Charles Middleton (1726-1813). Called 'the smasher' by Melville and 'the devil's gun' by British seaman, the carronade had two main functions: to smash through one side of an opposing ship's hull (creating a torrent of wood-splinters) and to clear the crew off an enemy's main-deck.

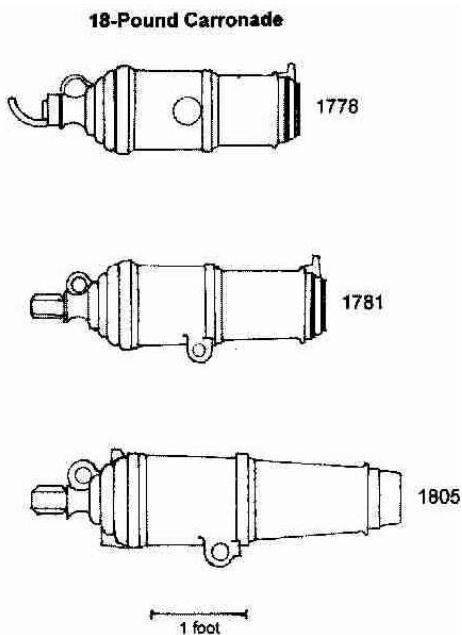
First manufactured by the Carron Iron Works in Falkirk, Stirlingshire, Scotland, carronades came in calibres ranging from two-pounders -- usually carried on the quarter-deck -- to 68-pounders (HMS 'Victory' carried two of these on her fore-castle). The typical fourth-rate warship of 50 to 54 guns in the Napoleonic Wars carried six 12-pounder long cannon and six 24-pounder carronades.

Despite some initial opposition from ships' captains, the Royal Navy moved ahead with the installation of carronades; the first British ship to receive the carronade was the 44-gun HMS 'Rainbow'. All doubts about the effectiveness of carronades were dispelled in 1782, when HMS 'Rainbow' engaged the large French frigate 'Hebe', forcing her to strike her colours (surrender) after a single broadside

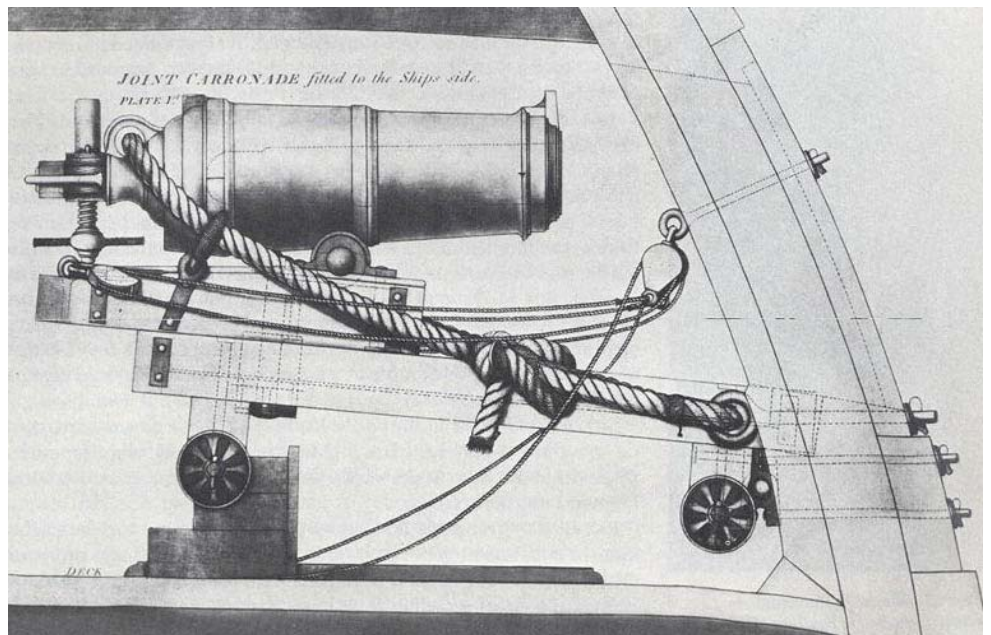
By 1790, carronade barrels were usually mounted on specially-designed wooden 'slides' -- not regular wheeled gun-carriages. This enabled the carronade to be traversed in a limited arc, increasing its potential target area. Although highly-effective at smashing through hulls and at repelling boarders, the main drawback of the carronade was its short range (captains were unable to use it properly until their ships had acquired a target less than half a kilometre away).

In 1795, the Royal Navy purchased nine 1,200-ton East India Company merchantmen then being built on the Thames River. These ships were then converted to 54 or 56-gun warships by joining the fore-castle and the quarter-deck (forming a continuous upper-deck). Armament for eight of the new vessels consisted of twenty-eight 18-pounder long guns on the gun-deck and twenty-six to twenty-eight 32-pounder carronades on the upper-deck. They were classed as 'fourth-rates'.

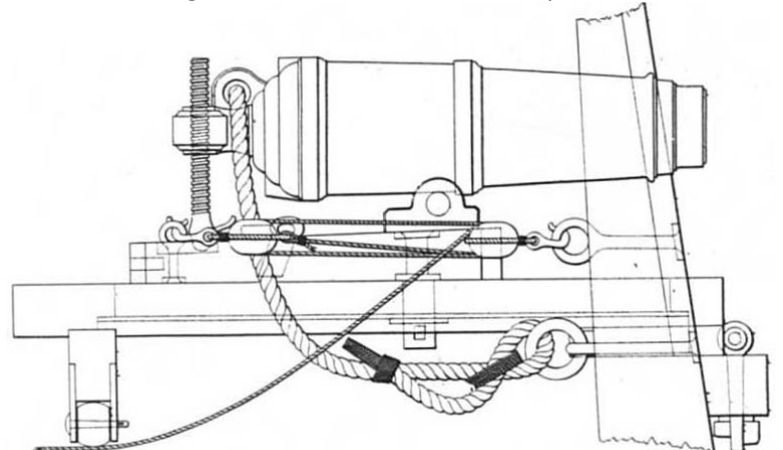
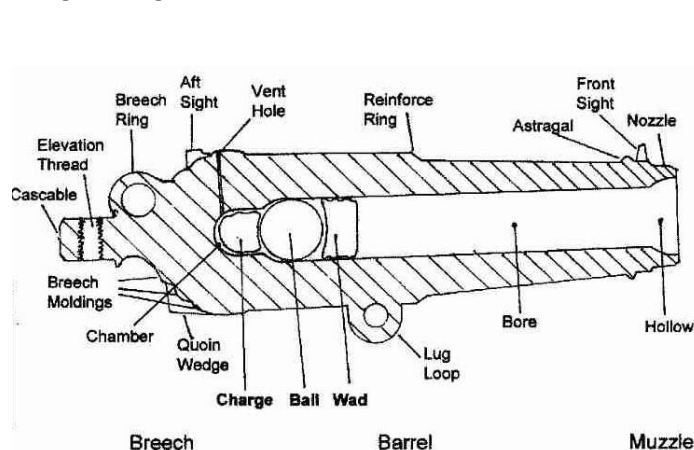
www.napoleon-series.org



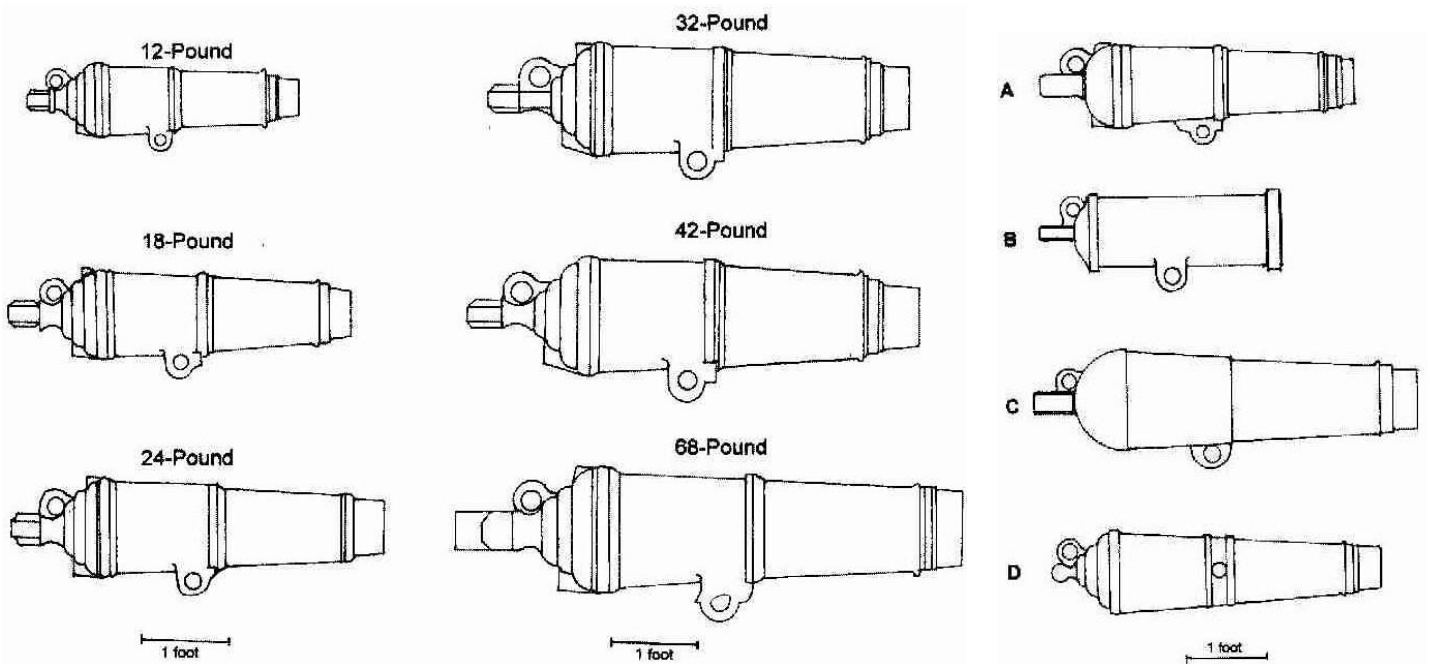
Design changes of British Carronades



British P1781 Carronade on sliding bed in stowed / full recoiled position



"The first gun of the 'Victory' to fire at [the Battle of] Trafalgar 1805 was the larboard (port) carronade. It was loaded with a 6.5 lb. (3 kg) powder charge, a 68 lb. (30.6 kg) round shot and a keg of 500 musket-balls and went into the stern of the French flagship 'Bucentaure'." -- www.hms-victory.com

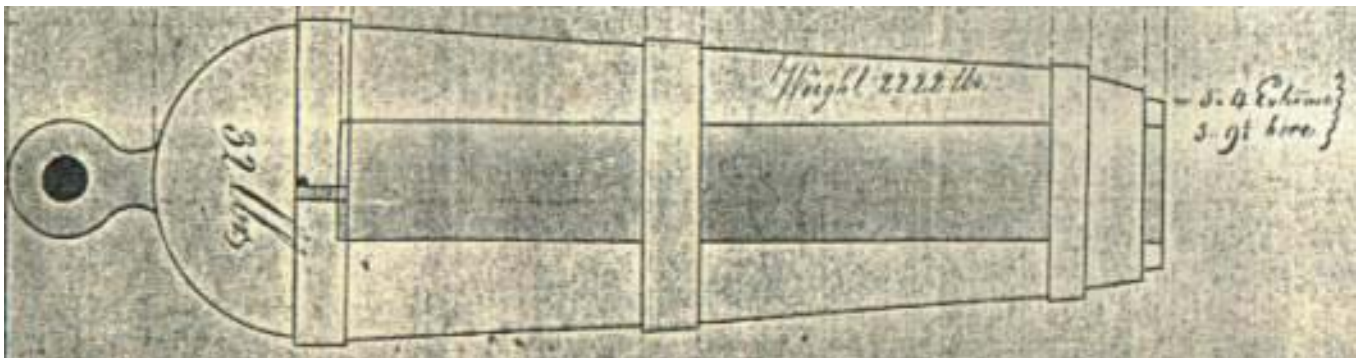


Above; British P1800? Carronades comparative sizes

Right;

- A. American-pattern 18-pound Carronade, probably circa 1810
- B. French brass 36-pound Carronade 1789-1800.
- C. French iron 36-pound Carronade 1800-1815.
- D. 18-pound gunnade. This was a gun on the privateer Salem, owned by the Crowninshield family. It was probably cast in Britain?

American Carronades. During the winter of 1808, a contract also was let with Henry Foxall, the ex-patriot British owner of the Columbia Iron Works, Georgetown, D.C., for 32-pounder carronades mounted on slides. These weapons, known as "smashers" because of their destructive power at short ranges, only began to be produced in the United States during the Barbary War. They were three feet, nine inches long and weighed only 2200-odd pounds each. Twenty-four had been placed aboard *Constitution* on her spar deck before she returned to active service in March 1809.



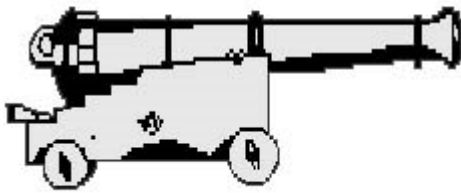
"A" The 1808 American 32-pounder carronade Record Group 45, National Archives

Round shot in carronades were typically of a tighter fit (less "windage") than in long guns, making a more efficient use of the powder charge; standard charges even for large carronades were typically only of a few pounds.

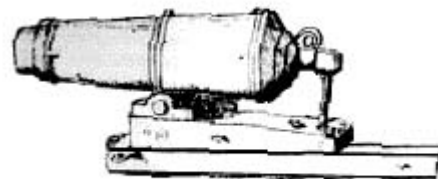
Shot Wt.(lbs)	Shot Diameter (ins)	Bore Diameter (ins)
12	4.40	4.50
18	5.04	5.16
24	5.55	5.68
32	6.10	6.25
42	6.68	6.85
68	7.85	8.05

The c1800 carronades technological attributes over the long cannon:

- Less than half of the weight of the long cannon of similar caliber, thus permitting larger caliber or more guns to be carried on ships.
- Operated by a gun crew of 3 to 4 rather than 6 to 8 required for a large long cannon.
- Nozzle - increased muzzle bore diameter for ease of loading.
- The front pivoted carriage permits easy traversing on rear wheels by block and tackle attached to eye bolts at rear of platform carriage for greater horizontal target scope and after winching the loaded carronade on slide carriage forward to firing position fine barrel adjustment is made using block and tackle attached to eye bolts at rear of slide carriage.
- The rear elevation screw allows for quick and precise adjustment compared to the wedge quoin adjustment used on the long cannon which generally needs readjusting for each shot.
- Flintlock igniter of advanced design retained with single pin instead of two pins used on long cannon.
- Reduced recoil travel distance, due to technologically advanced design of the underside pivot loop mounting transferring recoil force into a rotary downwards thrust through the rear elevation adjusting screw support increasing the friction between the slide carriage and the platform at the time when the carronade is recoiling.



CANNON



CARRONADE

The term CANNON describes the large, smooth-bored, muzzle-loading guns used before the advent of breech-loading, rifled guns firing elongated projectiles



68-pdr replica carronade on forecastle of HMS Victory in Portsmouth Historic Dockyard, UK.