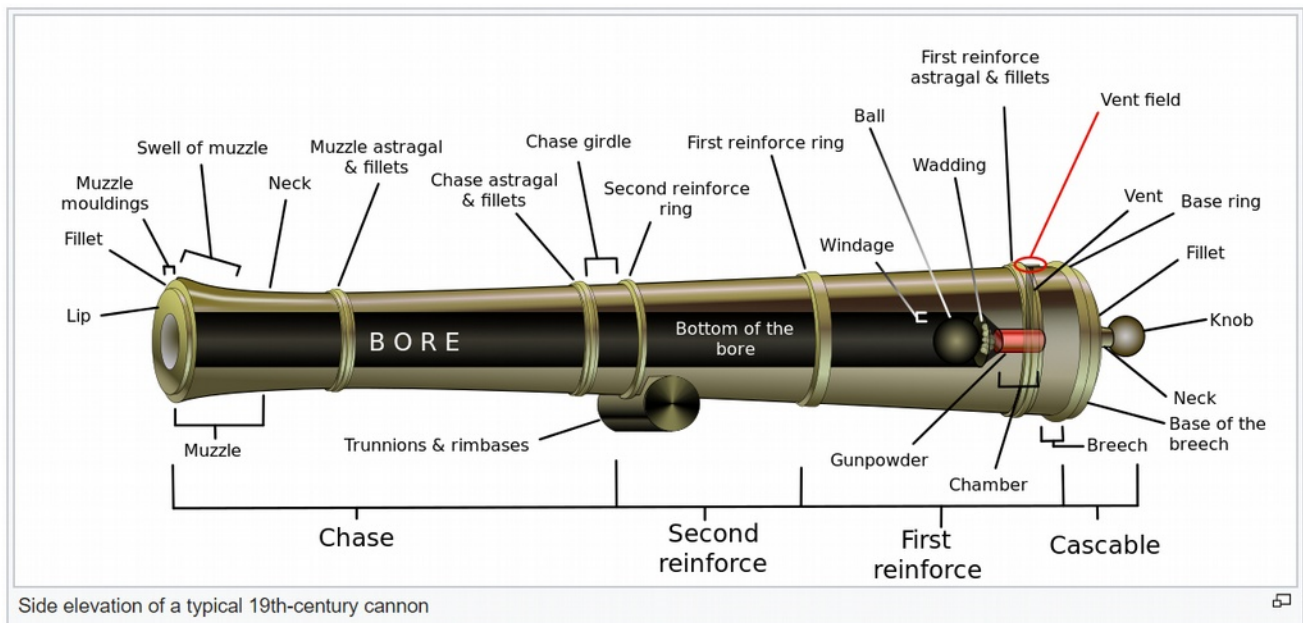


## Loading and Firing a Cannon



Side elevation of a typical 19th-century cannon

The powder would have previously been carefully measured and packed into a canvas bag shaped to fit. These bags were stored in the powder room. The load of gunpowder was shoved down the muzzle of the gun and pushed all the way in by a man with a tool called a rammer.

Next a "wad" went in. This was a wad of cloth, oakum, cotton, or even old rags. Because of the unsophisticated manufacturing techniques of the time, the cannon balls did not fit tightly in the barrel of the gun. (Better to have the fit too loose than to make a cannon ball that was too big to fit.) The wad took up extra space, and guaranteed that the ball would leave the cannon with maximum pressure behind it. The wad was also rammed into the cannon. The cannon ball went next. A 24-pounder cannon would take a ball of about 5½ inches diameter. This would probably roll to the back of the cannon, as the barrel of the gun was almost certainly elevated at an angle.

A pick was poked through the touch hole to rupture the bag full of powder, so fire could reach the contents.

Next the gun was run forward over the parapet. It was aimed, usually by the gun captain, the leader of the gun crew. Aiming had to take into account the wind the movement of the enemy vessel. At the right moment, the gun captain called to yet another man who was standing by holding a tool with a lighted fuse on the end of it.

This fuse was made of a substance called "slow match" which, as the name says, burned very slowly, at the rate of about a foot an hour. This slow match was held on the end of a long stick. This was the original "fire in the hole." The man using it could stand back, away from the rear of the cannon, and apply the burning match to the touch hole, where it met the gun powder.

Immediately two things happened. The cannon ball and wadding shot out the barrel of the cannon, and the gun itself leaped backward. (For every action, there is an equal and opposite reaction.) Of course the gun was restrained, by the heavy ropes attached to the inside of the parapet so it could not go too far. But the recoil-driven movement was necessary, for it brought the cannon back away from over the parapet, putting it into position to be loaded again.

There was one more thing, however. The last member of the gun crew, the sponger, needed to do his job. Dipping a sponge, on the end of a pole, into a nearby bucket of water, he would sponge out the inside of the gun, cleaning out any powder char or burning wadding, making it safe to put powder back into the gun.

Repeating this process, over and over, on a crowded roof while taking fire from an enemy vessel, was dangerous, nerve wracking, and exhausting. The team needed to work together, and every man had to do his job. Many things could go wrong. If the gun was incorrectly sponged out, the fresh load of gunpowder might explode prematurely. Cannonballs might fall to the floor, rolling and becoming a hazard. The back might blow off the gun, if the area around the touch hole had become worn or corroded. Or the gun might break loose from the ropes holding it, becoming a 2½ pound death threat.

*Adapted from online article on firing a 24-pounder cannon on a ship in the 19<sup>th</sup> century  
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