

## **Firing a Matchlock Musket**

### **1. Load**

Matchlock muskets were loaded at the muzzle. The gunner poured gunpowder into the mouth of the barrel, inserted a musket ball, and tamped everything down with a ramrod.

### **2. Prime**

Next, the gunner leveled the weapon and poured fine-grained gunpowder into the priming pan before quickly closing the pan cover. The cover kept the powder from getting wet, spilling, or accidentally igniting. A partially full priming pan might flare up without igniting the main charge, resulting in a “flash in the pan.”

### **3. Ready**

When it was time to shoot, the gunner clipped a lit match cord to the end of the gun’s serpentine and opened the pan cover.

### **4. Aim**

Supporting the barrel with his left hand, the gunner raised the buttstock to his cheek and aimed by lining up the barrel’s front and back sights.

### **5. Fire**

The gunner pulled the trigger, releasing the spring-loaded serpentine and bringing the lit match cord into contact with the priming pan. The priming powder flared up and ignited the main charge inside the barrel, creating an explosion that propelled the musket ball out of the gun and toward the target.

## **Saving Seconds: *Hayagō***

Matchlock muskets were slow and cumbersome to load. To speed up the process, gunners invented the *hayagō*, a forerunner of modern cartridge ammunition. *Hayagō* consisted of a small, portable container, such as a bamboo tube, filled with premeasured gunpowder and a musket ball.

Unlike a true cartridge, a *hayagō* was not inserted directly into the weapon. Instead, it was used by tearing off its paper-covered end and pouring the shot and powder into the gun’s muzzle. Gunners carried *hayagō* in containers on their belts or in bandoliers. Each one saved precious seconds during loading, which could mean the difference between life and death on the battlefield.