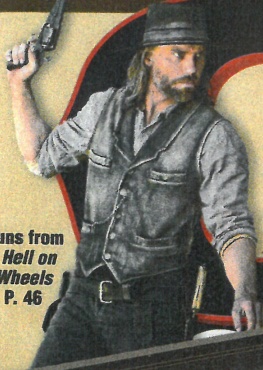


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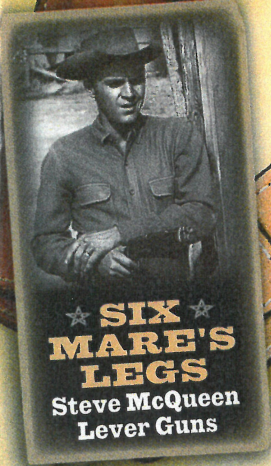


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- ★ Air Venturi John Wayne Peacemaker .177 ★
- ★ Dixie Gun Works 1860 Army .44 ★

REVEREND FORSYTH

How a man of the cloth ushered in a new era of percussion arms.

BY T. LOGAN METESH *Photos courtesy NRA Museums*

By the early 19th century, after more than 200 years of flintlock dominance, the winds of change began to blow. A new era in technology was dawning that would have a lasting impact on firearms designs for decades to come.

Reverend Alexander John Forsyth made a significant change in the world of firearms ignition systems. Born in 1768 to a minister in Scotland, he was educated at King's College and followed in his father's footsteps to become a man of the cloth. A deep thinker, he often walked along the water as a calming way to collect his thoughts, sometimes thinking about his sermons. Other times, he was thinking about firearms.

As an avid duck hunter, Forsyth lamented the inefficiency of the flintlock's design as a hunting piece. The long delay between the trigger pull, ignition of the flash pan, ignition of the main powder charge and the actual firing of the weapon was advantageous to the ducks and not the hunter. First, the noise of the mechanism alerted the birds of something in the area, then the resulting delay provided enough time for the birds to make evasive maneuvers and avoid being shot.

In 1805, at the age of 37, Forsyth developed his first percussion-style lock. He went to London and showed his design to the Master-General of the Ordnance, Lord Moira. Impressed by the design, Moira arranged for Forsyth to take a leave of absence from his parish and was given quarters in the workshops of the Tower of London to work on his design. By 1806, however, Lord Moira had been replaced by the Earl of Chatham, who did not share Lord Moira's enthusiasm for the new design. He ordered Forsyth to remove his "rubbish"

from the Tower. After leaving the Tower of London, Napoleon Bonaparte supposedly offered Forsyth £20,000 if he would bring his invention to France, but Forsyth declined in a most patriotic manner.

Forging Ahead

Being removed from the Tower did not set Forsyth back or slow him down in the slightest. In 1807, Forsyth received a patent on his design. By 1808, with enough financial support and expert manpower from renowned

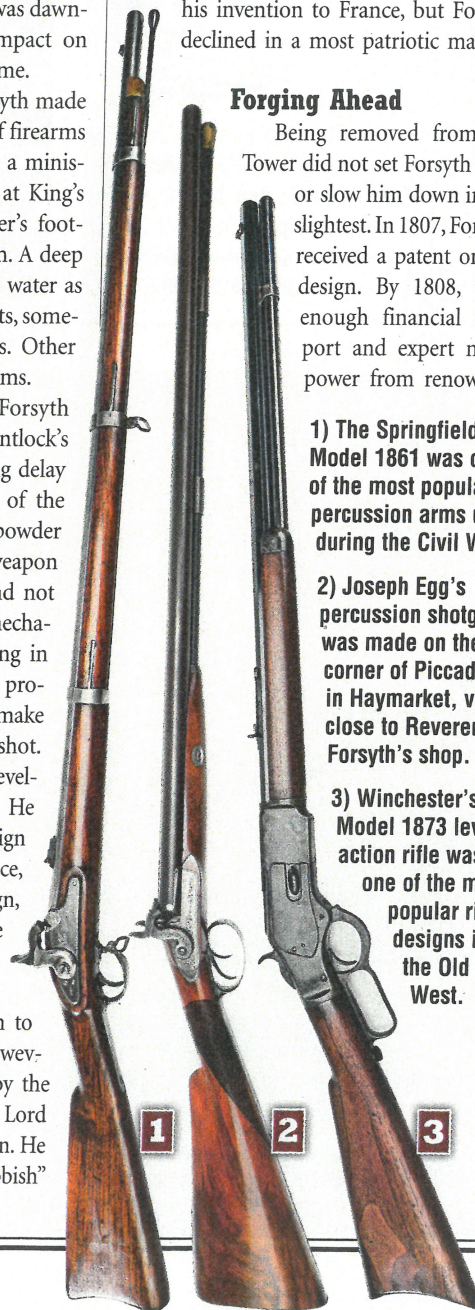
gun-maker James Purdey, he opened his own firearms manufacturing firm. The company produced a number of guns using his new percussion system that utilized mercury fulminate to ignite the gunpowder.

In December of 1808, he took out an ad in London's *Morning Post* about his new business. The ad read in part: "To Sportsmen, the Patent Gun-lock invented by Mr. Forsythe [sic] is to be had at No. 10 Piccadilly, near Haymarket. Those... unacquainted with...this invention are informed that the inflammation is produced without...flint, and is much more rapid. The lock is...completely impervious to water, or damp of any kind, and may in fact be fired under water."

This new form of ignition caught on, and Forsyth found himself having to defend his patent against a variety of other gun-makers, most notably being renowned maker Joseph Manton. Legal battles around the percussion ignition system would lead to Forsyth's downfall in the business. Defending his patent in court was a costly venture. After only a handful of years in business, he returned to his parish and reclaimed his place in the pulpit.

Percussion Advances

Forsyth's invention did not use the percussion cap that most people think of today. Instead, his sliding magazine locks operate by having the priming magazines linked to the hammer of the firearm. When the hammer is cocked, the magazine moves back over the flash pan. When in that position, a small priming charge is dispensed from the magazine into the pan. When the trigger is pulled, the magazine moves forward, out of the way, and the charge is detonated by a firing pin on the hammer that fits into the pan.



1) The Springfield Model 1861 was one of the most popular percussion arms used during the Civil War.

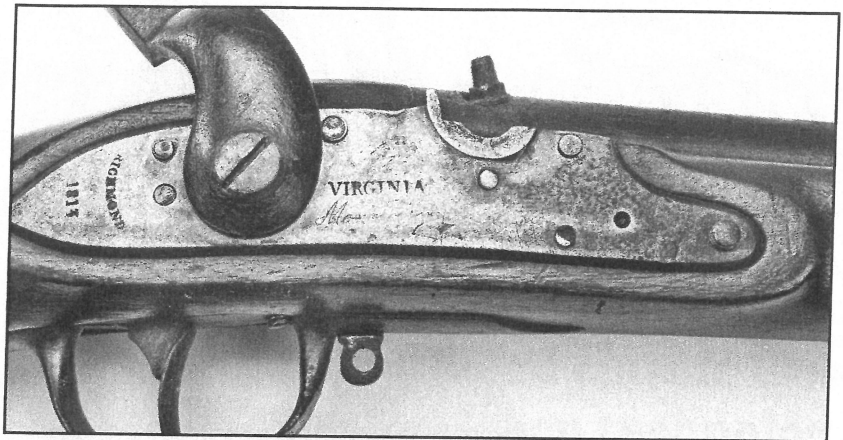
2) Joseph Egg's percussion shotgun was made on the corner of Piccadilly in Haymarket, very close to Reverend Forsyth's shop.

3) Winchester's Model 1873 lever-action rifle was one of the most popular rifle designs in the Old West.



The percussive copper English device legal ac ermer inventi that his adopte Sha device on top nipple, rel. The and a struck ignited into th gunpow It v sion ignate fi much it saw of self the metalli many percuss Per compa West. and m fledglin of safe long g have st change Forsy Eve can tra Revered his per Shaw have cr

Made in Richmond, Virginia, in 1813, this musket shows signs of the “cone-in-barrel” method of converting an old flintlock piece to the new percussion system.



The most important advance to the percussion system was the creation of the copper percussion cap. Joshua Shaw, an English-born American artist, patented the device in the United States in 1822 to avoid legal action by Forsyth. The American government awarded Shaw \$18,000 for his invention. It was not until 1839, however, that his design would be acknowledged and adopted in England.

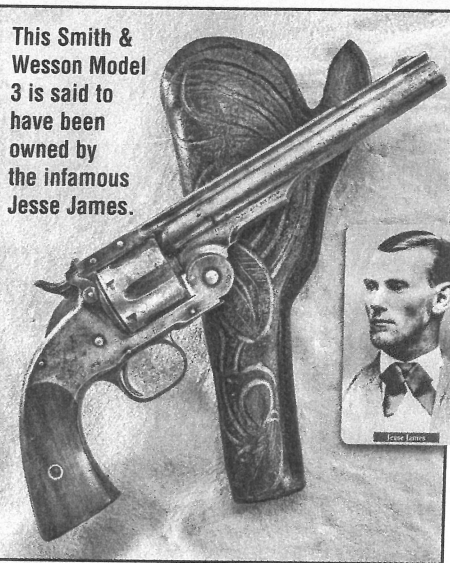
Shaw's percussion cap is a hat-shaped device with a small amount of fulminate on top. The cap was placed on a cone, or nipple, which had an opening into the barrel. The cone acted as both a striking surface and a charge channel. When the hammer struck the top of the cap on the cone, it ignited the fulminate and channeled flame into the barrel, where it would ignite the gunpowder and discharge the firearm.

It wouldn't be long before the percussion ignition system would come to dominate firearms worldwide. With a heyday much shorter than that of the flintlock, it saw considerable use until the advent of self-contained metallic cartridges in the mid- and late-19th century. Even after metallic cartridges were widely available, many still continued to carry and use their percussion firearms.

Percussion firearms were the constant companion of the earliest pioneers in the West. They helped protect the prospectors and miners that were the lifeblood of many fledgling frontier towns. Without the sense of safety provided by those revolvers and long guns, some of those men might not have struck out on an adventure that would change the face of our country forever.

Forsyth's Legacy

Every gun holstered in the Old West can trace its existence back to Reverend Forsyth. Without his percussion system, Shaw would not have created the



This Smith & Wesson Model 3 is said to have been owned by the infamous Jesse James.

ignition system. Wells Fargo payloads were safe with those guns up top.

Harnessing the power of percussion led to the advent of the self-contained metallic cartridge, a technology that would revolutionize firearms to this day. This system was used to ignite gunpowder in some of the most famous Old West guns of all time—the Winchester Model 1873 lever-action rifle and the Colt Single Action Army revolver. Other cartridge revolvers, like the Smith & Wesson Model 3, were used by infamous Western personas such as Jesse James and Billy the Kid.

One might not expect a frustrated duck hunter and man of the cloth to usher in a new age of firearms technology. But Reverend Alexander John Forsyth did just that. More than 100 years after his invention was created, Forsyth was still being officially honored for his contributions. In 1929, a memorial for him was placed at the Tower of London—the first time ever that a memorial to a private individual had been erected on the property. Two years later, in 1931, another was placed on the Cromwell Tower at his alma mater, King's College in Aberdeen.

In 1930, the President of the National Rifle Association of Great Britain eulogized Forsyth by saying he was “the only man in the world in whose honor a salute was fired every day in the year.” Indeed, his invention was far-reaching and rightly earns him the title of being the “grandfather of the Old West's guns.”

percussion cap. Without the percussion cap, Samuel Colt would not have been able to create his iconic cap-and-ball revolvers. From the heavy-hitting Walker in 1847 to the Model 1851—carried by “Wild Bill” Hickok and “Buffalo Bill” Cody—Colt has Forsyth to thank for helping jump-start his empire and propel his name into history.

Many a stagecoach, too, was protected by a man “riding shotgun” with a double-barrel coach gun ignited by the percussion

This Colt 1860 Army revolver has been modified to fire self-contained metallic cartridges.

