U.S. Veterans Memorial Museum Newsletter

Ford Pygmy Serial# 1

40 and 8 Boxcar, The Merci Train

The Pygmy Press

M42B1 Sherman Flamethrower Tank

M3A1 Half Track

The Museum is open Wednesday - Saturday 10 a.m. until 4 p.m.
To set up a tour call the Museum at 256-883-3737 during Museum hours.

The July Newsletter contains:

Museum Intro.

The U.S. Veterans Memorial Museum located in Huntsville Alabama *is a* 501c3 not-for-profit organization. There are more than 30 historical military vehicles from World War I to the present as well as artifacts and other memorabilia dating back to the Revolutionary War. Displays include a "Merci" 40 et 8 boxcar from World War I, a Cobra attack helicopter, a collection of jeeps, Sherman tanks and Stuarts, a half-track and flags, maps, uniforms and other artifacts from every U.S. conflict. The Museum is located just west of Memorial Pkwy in John Hunt Park at 2060 Airport Road, or 3650 McCallister Drive, Huntsville, Al 35801. The U.S. Veterans Memorial Museum is dedicated to promoting the accomplishments of American military men and women.

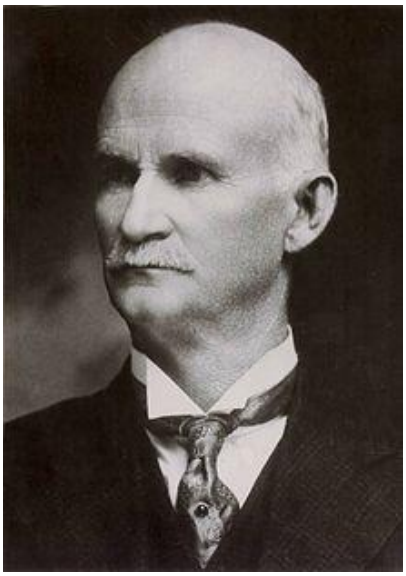
The Museum's web page is www.memorialmuseum.org.
The Museum email of is Info@memorialmuseum.org.

If you would like to be removed from our mailing list, or if you would like to be “ADDED” to our mailing list, please email me at,
usvetnewsletter070@gmail.com

Famous Gun Designers

To talk about the guns that served the world we must talk about the people who created these guns. The first person that comes to mind has to be John Moses Browning.

John Moses Browning (January 23, 1855 – November 26, 1926) was an American firearm designer who developed many varieties of military and civilian firearms, cartridges, and gun mechanisms – many of which are still in use around the world. He made his first firearm at age 13 in his father's gun shop and was awarded the first of his 128 firearm patents on October 7, 1879, at the age of 24. He is regarded as one of the most successful firearms designers of the 19th and 20th centuries and a pioneer of modern repeating, semi-automatic, and automatic firearms.



John Browing around 1915

Browning influenced nearly all categories of firearms design, especially the auto loading of ammunition. He invented, or made significant improvements to, single-shot, lever-action, and pump-action rifles and shotguns. He

developed the first reliable and compact auto loading pistols by inventing the telescoping bolt, then integrating the bolt and barrel shroud into what is known as the pistol slide. Browning's telescoping bolt design is now found on nearly every modern semi-automatic pistol, as well as several modern fully automatic weapons. He also developed the first gas-operated firearm, the Colt–Browning Model 1895 machine gun a system that surpassed mechanical recoil operation to become the standard for most high-power self-loading firearm designs worldwide. He also made significant contributions to automatic cannon development.

Browning's most successful designs include the M1911 pistol, the water-cooled M1917, the air-cooled M1919, and heavy M2 machine guns, the M1918 Browning Automatic Rifle, and the Browning Auto-5 – the first semi-automatic shotgun. Some of these arms are still manufactured, often with only minor changes in detail and cosmetics to those assembled by Browning or his licensees. The Browning-designed M1911 and Hi-Power are some of the most copied firearms in the world.

Browning's father Jonathan—who was among the thousands of pioneers of the Church of Jesus Christ of Latter-day Saints who made an exodus from Nauvoo, Illinois, to Utah—established a gunsmith shop in Ogden in 1852. As was common in the Latter-day Saint community at the time, Jonathan Browning was a polygamist, having taken three wives. He fathered 22 children, including John Moses, and raised two stepdaughters with his wife Elizabeth Caroline Clark.

Browning worked in his father's Ogden shop from the age of seven, where he was taught basic engineering and manufacturing principles, and encouraged to experiment with new concepts. He developed his first rifle; a single-shot falling block action design while he was still his father's apprentice, then, in 1878, in partnership with his younger brother, co-founded John Moses and Matthew Sandefur Browning Company, later renamed Browning Arms Company. The company began producing the brothers' designs and other non-military firearms. By 1882, the company employed John and Matthew's half-brothers Jonathan (1859–1939), Thomas (1860–1943), William (1862–1919), and George (1866–1948).

Like his father, Browning was a member of The Church of Jesus Christ of Latter-day Saints, and served a two-year mission in Georgia beginning on March 28, 1887.

He married Rachel Theresa Child (September 14, 1860 – September 30, 1934) on April 10, 1879, in Ogden, Weber County, Utah Territory, and the couple had 10 children, two of whom died in infancy.

Some of Browning's fantastic weapon design can be seen at The U.S. Veteran's Memorial Museum, in Huntsville Alabama.

The **Colt M1911** (also known as **1911**, **Colt 1911** or **Colt** for the .45 ACP cartridge. The pistol's formal U.S. military designation as of 1940 was Automatic Pistol, Caliber .45, M1911 for the original model adopted in March 1911, and Automatic Pistol, Caliber .45, M1911A1 for the improved **M1911A1** model which entered service in 1926. The designation changed to Pistol, Caliber .45, Automatic, and M1911A1 in the Vietnam War era.

The famous 1911 .45ACP

Designed by John Browning, the M1911 is the best-known of his designs to use the short recoil principle in its basic design. The pistol was widely copied, and this operating system rose to become the preeminent type of the 20th century and of nearly all modern centerfire pistols. It is popular with civilian shooters in competitive events such as the International Defensive Pistol Association and International Practical Shooting Confederation.

The second on our list of John Brown has to be his M2 Browning, .50 cal machine gun. The **M2 machine gun** or **Browning .50 caliber machine gun** (informally, "**Ma Deuce**") is a heavy machine gun that was designed near the end of World War I by John Browning. While similar to Browning's M1919 Browning machine gun, which was chambered for the .30-

The M2 50 Caliber Heavy Machine Gun

06 cartridge, While similar to Browning's M1919 Browning machine gun, which was chambered for the .30-06 cartridge, the M2 uses Browning's larger and more powerful .50 BMG (12.7 mm) cartridge. The design has had many designations; the official U.S. military designation for the infantry type is **Browning Machine Gun, Cal. .50, M2, HB, Flexible**. It has been used against infantry, lightly armored vehicles and boats, light fortifications, and low-flying aircraft.

The gun has been used extensively as a vehicle weapon and for aircraft armament by the United States since the 1930s. It was heavily used during World War II, the Korean War, the Vietnam War, the Falklands War, the Soviet–Afghan War, the Gulf War, the Iraq War, and the War in Afghanistan. It is the primary heavy machine gun of NATO countries and has been used by many other countries as well. U.S. forces have used the M2 longer than any other firearm except the .45 ACP M1911 pistol, which was also designed by John Browning.

The **M2HB** (heavy barrel) is manufactured in the U.S. by General Dynamics, Ohio Ordnance Works, U.S. Ordnance, and FN Herstal for sale to the U.S. government and other nations via Foreign Military Sales.

Jean Garand

The second designer on our list invented on of the most important weapons to the defense of the free world. **Jean Cantius Garand** (January 1, 1888 – February 16, 1974), also known as **John C. Garand**, was a Canadian designer of firearms who created the M1 Garand, a semi-automatic rifle that was widely used by the U.S. Army and U.S. Marine Corps during both World War II and the Korean War.

Garand was one of twelve children (six boys and six girls) born on a farm near St. Rémi, Quebec. His father moved to Jewett City, Connecticut, with the children when their mother died in 1899. All of the boys had the first name St. Jean le Baptiste, but only he went by the first name Jean. The other boys went by their middle names. Several of his brothers were also inventors. The children were employed in a textile mill where Jean learned to speak English while sweeping floors. Jean became interested in guns and learned to shoot after working at a shooting gallery. Jean learned machinist skills while working at the textile mill, and was hired by Browne and Sharpe, Providence, Rhode Island, tool making company in 1909. Later, he found employment with a New York tool making firm in 1916, and resumed rifle practice at the shooting

galleries along Broadway. Garand became a naturalized United States citizen in 1920.

Pronunciation of the name "Garand" is often disputed, being pronounced variably as. Descendants of John Garand and his close friend General Julian Hatcher generally agree that it is the latter, rhyming approximately with 'errand'.

Garand's fondness for machinery and target shooting blended naturally into a hobby of designing guns, which took a more vocational turn in 1917. That year the United States Army took bids on designs for a light machine gun, and Garand's design was eventually selected by the War Department. Garand was appointed to a position with the United States Bureau of Standards in Washington D.C., with the task of perfecting the weapon. The first model was not built until 1919, too late for use in World War I, but the government kept employing Garand as an engineer with the Springfield Armory starting from November 4, 1919 until he retired in 1953.

In Springfield, Massachusetts, Garand was tasked with designing a basic gas-actuated self-loading infantry rifle and carbine that would eject the spent cartridge and reload a new round based on a gas-operated system. Designing a rifle that was practical in terms of effectiveness, reliability, and production, stretched over time; it took fifteen years to perfect the M1 prototype model to meet all the U.S. Army specifications. The resulting *Semiautomatic, Caliber .30, M1* patented by Garand in 1932, approved by the U.S. Army on January 9, 1936, and went into mass production in 1940. It replaced the bolt-action M1903 Springfield and became the standard infantry rifle known as the *Garand Rifle*. During World War II, over four million M1 rifles were manufactured. The Garand Rifle proved to be an effective and reliable weapon and was praised by General MacArthur. General Patton wrote, "In my opinion, the M1 rifle is the greatest battle implement ever devised."

M1 Garand

In the late 1940s and early 1950s, Garand had designed and built a prototype bullpup rifle. It fired the same cartridge as the M1, but the magazine, action and shape were completely different. It was a select-fire design, and had a firing rate of about 600rpm. When Garand retired in 1953, the second version of the T31 was incomplete, and remained so. The project was scrapped, and the gun was retired to the Springfield Armory museum in 1961.

Garand never received any royalties from design despite over six and a half million M1 rifles being manufactured as he transferred all rights regarding his inventions to the U.S. on January 20, 1936. A bill was introduced in Congress to award him $100,000 in appreciation, but it did not pass. Garand remained in his consulting position with the Springfield Armory until his retirement in 1953.

The third designer in our collection designed a weapon more familiar to the new generation of Veterans. I am introducing you to Eugene Stoner designer of the M16.

Eugene Morrison Stoner (November 22, 1922 – April 24, 1997) was an American machinist and firearms designer who is most associated with the development of the ArmaLite AR-15 rifle that was redesigned and modified by Colt's Patent Firearm Company for the United States military as the M16 rifle.

Stoner was born in Gosport, Indiana, on November 22, 1922. They moved to Long Beach, California where he graduated from Long Beach Polytechnical High School. In 1939, after the Depression, there was not enough money for him to attend college, so he went to work as a machinist for Vega Aircraft Company, the forerunner of what became Lockheed Airplane Company (now the Lockheed Martin Corporation).

During World War II, he enlisted for Aviation Ordnance in the U.S. Marine Corps and served in the South Pacific and northern China. In the Corps, he had his first experience of working with heavy-caliber automatic weapons as an armourer. The work experience and combat training served him throughout his weapons designing career.

In late 1945 Stoner began working in the machine shop for Whittaker, an aircraft equipment company, and ultimately became a Design Engineer. In 1954 he came to work as chief engineer for ArmaLite, a division of Fairchild Engine & Airplane Corporation. While at ArmaLite, he designed a series of prototype small arms, including the AR-3, AR-9, AR-11, and AR-12, none of which saw significant production. Their only real success during this period was the AR-5 survival rifle, which was adopted by the United States Air Force.

Mr. Eugene M. Stoner

The Stoner bolt and carrier piston system is a widely known gas system designed by Eugene Stoner. The gas operated bolt and carrier system was filed in 1956 and subsequently patented by ArmaLite for use in the AR-

10. The original AR-10 action (later developed into the ArmaLite AR-15, M16 rifle and M4 carbine). It is commonly called a direct impingement system, but it does not utilize a conventional direct impingement system. In U.S. patent 2,951,424, the designer states: ″This invention is a true expanding gas system instead of the conventional impinging gas system.″ Gas is routed from a port in the barrel through a gas tube, directly to a chamber inside the bolt carrier. The bolt within the bolt carrier is fitted with piston rings to contain the gas. In effect, the bolt and carrier act as a gas piston and cylinder. The subtleties involved in ArmaLite's patent on the gas system significantly diverge from classical direct impingement; upon firing, the pressurized propellant gasses exit the barrel via the gas port and travel the length of the gas tube, but instead of simply applying the inertia necessary to cycle the weapon directly to the bolt carrier, the gas is funneled inside the bolt carrier wherein the increase in pressure results in the bolt itself acting as a piston, forcing the bolt carrier away from the barrel face.

The Stoner system provides a very symmetric design that allows straight line movement of the operating components. This allows recoil forces to drive straight to the rear. Instead of connecting or other mechanical parts driving the system, high pressure gas performs this function, reducing the weight of moving parts and the rifle as a whole. The straight-line recoil design, where the recoil spring is located in the stock directly behind the action, and serves the dual function of operating spring and recoil buffer.

In 1955, Stoner completed initial design work on the revolutionary ArmaLite AR-10, a lightweight (7.25 lbs.) select-fire infantry rifle in 7.62×51mm NATO caliber. Besides featuring the Stoner bolt and carrier piston system, the AR-10 stock was in line with the bore to reduce muzzle rise, especially during automatic fire. Because recoil does not significantly shift the point of aim, faster follow-up shots are possible, and user fatigue is reduced. The AR-10 was submitted for rifle evaluation trials to the US Army's Aberdeen Proving Ground late in 1956. In comparison with competing rifle designs previously submitted for evaluation, the AR-10 was smaller, easier to fire in automatic, and much lighter. However, it arrived very late in the testing cycle, and the army rejected the AR-10 in favor of the more conventional T44, which became the M14. The AR-10's design was later licensed to the Dutch firm of Artillerie Inrichtingen, which produced the AR-10 until 1960 for sale to various military forces.

The M-16 combat rifle

At the request of the U.S. military, Stoner's chief assistant, Robert Fremont along with Jim Sullivan designed the ArmaLite AR-15 from the basic AR-10

model, scaling it down to fire the small-caliber .223 Remington cartridge. The AR-15 was later adopted by United States military forces as the M16 rifle.

Eugene Stoner died of cancer at the age of 74 on April 24, 1997, and was later interred in the Quantico National Cemetery, Quantico, Virginia.

Mikhail Timofeyevich Kalashnikov,

Kalashnikov was born in the village of Kurya, in present-day Altai Krai, Russia, as the seventeenth child of the 19 children of Aleksandra Frolovna Kalashnikova (née Kaverina) and Timofey Aleksandrovich Kalashnikov, who were peasants. In his youth, Mikhail suffered from various illnesses and was on the verge of death at age six. He was attracted to all kinds of machinery, but also wrote poetry, dreaming of becoming a poet. He later went on to write six books and continued to write poetry all of his life. In 1930, his father and most of his family had their properties confiscated and were deported as kulaks to the village of Nizhnyaya Mokhovaya, Tomsk Oblast. After deportation, his family had to combine farming with hunting, and thus Mikhail frequently used his father's rifle in his teens. Kalashnikov continued hunting into his 90s.

Kalashnikov and his AK-47

After completing seventh grade, Mikhail, with his stepfather's permission, left his family and returned to Kurya, hiking for nearly 1,000 km. In Kurya, he found a job in mechanics at a tractor station. A party organizer embedded within the factory noticed the man's dexterity and issued him a directive (*napravlenie*) to work at a nearby weapons design bureau, where he was employed as a tester of fitted stocks in rifles. In 1938, he was conscripted into the Red Army. Because of his small size and engineering skills he was assigned as a tank mechanic, and later became a tank commander. While training, he made his first inventions, which concerned not only tanks, but also small weapons, and was personally awarded a wrist watch by Georgy Zhukov. Kalashnikov served on the T-34s of the 24th Tank Regiment, 108th Tank Division stationed in Stryi before the regiment retreated after the Battle of Brody in June 1941. He was wounded in combat in the Battle of Bryansk in October 1941 and hospitalized until April 1942.

In the last few months of being in hospital, he overheard some fellow soldiers bemoaning their current rifles, which were plagued with reliability issues, such as jamming. As he continued to overhear the complaints that the Soviet

soldiers had, as soon as he was discharged, he went to work on what would become the famous AK-47 assault rifle.

Seeing the drawbacks of the standard infantry weapons at the time, he decided to construct a new rifle for the Soviet military. During this time Kalashnikov began designing a submachine gun. Although his first submachine gun design was not accepted into service, his talent as a designer was noticed. From 1942 onwards, Kalashnikov was assigned to the Central Scientific-developmental Firing Range for Rifle Firearms of the Chief Artillery Directorate of the Red Army.

In 1944, he designed a gas-operated carbine for the new 7.62×39mm cartridge. This weapon, influenced by the Garand rifle design, lost out to the new Simonov carbine which would be eventually adopted as the SKS; but it became a basis for his entry in an assault rifle competition in 1946. His winning entry, the "Mikhtim" (so named by taking the first letters of his name and patronymic, **Mikh**ail **Tim**ofeyevich) became the prototype for the development of a family of prototype rifles.

This process culminated in 1947, when he designed the AK-47 (standing for *Avtomat Kalashnikova model 1947*). In 1949, the AK became the standard issue assault rifle of the Soviet Army and went on to become Kalashnikov's most famous invention.

While developing his first assault rifles, Kalashnikov competed with two much more experienced weapon designers, Vasily Degtyaryov and Georgy Shpagin, who both accepted the superiority of the AK-47 design. Kalashnikov named Alexandr Zaitsev and Vladimir Deikin as his major collaborators during those years.

After a prolonged illness, Kalashnikov was hospitalized on 17 November 2013, in an Udmurtian medical facility in Izhevsk, the capital of Udmurtia and where he lived. He died 23 December 2013, at age 94 from gastric hemorrhage. In January 2014, a letter that Kalashnikov wrote six months before his death to the leader of the Russian Orthodox Church, Patriarch Kirill, was published by the Russian daily newspaper *Izvestia*. In the letter, he stated that he was suffering "spiritual pain" about whether he was responsible for the deaths caused by the weapons he created. Translated from the published letter he states, "I keep having the same unsolved question: if my rifle claimed people's lives, then can it be that I... a Christian and an Orthodox believer, was to blame for their deaths?”

The patriarch wrote back, thanked Kalashnikov, and said that he "was an example of patriotism and a correct attitude toward the country". Kirill added about the design responsibility for the deaths by the rifle, "the church has a

well-defined position when the weapon is defense of the Motherland; the Church supports its creators and the military, which use it."

Editors Notes

I hope you like the new newsletter format.

If you have any ideas or suggestions please email me and let me know.
I also welcome story suggestions.

New and big changes are coming to the U.S. Veterans Memorial Museum, keep an eye out for more information.

If you have an artifact, weapon, or any, military item bring it in and we will try to identify it.

Grande Du Alabama donated $250.00 for the upkeep and maintenance on the Alabama 40 & 8 boxcar on display at the U.S. Veterans Memorial Museum.

2024 is a Presidential Election year, if you are not registered, now is the time to get registered to Vote.

Museum News

- **Take Our Museum QR Tour**

  How to start

  1) Install a QR Code Reader from the Apple store or Apps store on your smartphone.
  2) Scan the QR Code located on the exhibit
  3) Open the website link to see information on a Museum exhibits.

- **The Museum's website at http://www.memorialmuseum.org**
  Under COLLECTION select an item you would like to view.

- The Museum has added a **Family Archives** section to our website. It is a repository for the profiles of military personnel whose families have donated their family stories to The U.S. Veterans Memorial Museum or volunteers of the Museum. If you would like to have your military relative's story displayed on The U.S. Veterans Memorial Museum website:
  ***** Deliver their story and photo to the Museum located just west of Memorial Parkway in John Hunt Park at 2060 Airport Road, / 3650 Alex McAllister Drive, Huntsville, Al 35801.
  ***** Or you can also mail their story and photo to:
  U. S. Veterans Memorial Museum **Family Archives Project**
  2060 Airport Road/ 3650 Alex McAllister Dr. Huntsville, Alabama 35801
  ***** Or email the information to: *usvetnewsletter070@gmail.com*

- **DONATIONS** to assist in repair and upgrade Museum Restoration.
  To view the items being restored go to: https://memorialmuseum.org/about/restorations
  * If you would like to be a part of maintaining history of our military,
  You can make a monetary donation to:
  *U. S. Veterans Memorial Museum Restoration Project
  At 2060 Airport Road/3650 Alex McAllister Rd. Huntsville, Alabama 35801
  The U. S. Veterans Memorial Museum is a non-profit tax-exempt museum.
  A tax deductible receipt will be provided.

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