## **EDITORIAL**

## A Uniquely American Designer – the Very International John Moses Browning

George Fox Lang, Associate Editor

When I was about eight years old, my mother remarried. This changed our lives greatly. Home changed from a thickly painted, fifth-floor walk-up apartment in Queens, New York, to a rather nice colonial house in a small Rhode Island waterfront town.

That house had a fireplace, an absolute novelty to a low budget city kid. To its right on the hearth was an antique brass and copper bucket that held the butts of two of the

most fascinating objects I had ever seen, both made by Winchester Manufacturing of New Haven, Connecticut.

The larger gun was a well-worn Winchester model 12 pumpaction shotgun; the smaller a single-shot rifle operated by a delicately curved finger lever and chambered for the long-obsolete .22 WCF Special black-powder cartridge. That lithe little rifle, with its precisely operating and beautifully case-hardened "falling-block" action and half-round/ half-octagon barrel was a thing of true beauty and consummate craftsmanship. I fondled it for hours, imagining it as my trusty companion in a myriad of improbable adventures. That rifle was a

Winchester model 1885 High Wall, the first commercial design of John Moses Browning. It bore his first U.S. patent (220,271). The United States Patent Office would issue him (at least) 145 more.

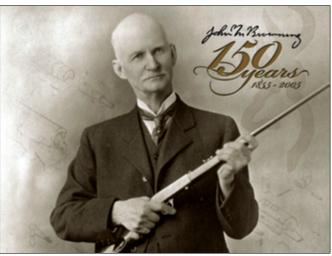
Browning was born in Ogden, Utah, in 1833 and died in Liege, Belgium (1926). In between those events, this reverent Mormon invented *entire classes* of civilian firearms, including:

- The pump-action shotgun (That old model 12 echoed many of the characteristics of his preceding model 1897 Winchester)
- The semi-automatic shotgun and the over/under shotgun. He improved upon existing weapons, such as the 1873 lever-action repeating rifle ("the gun that won the West"), giving Winchester the model 1892, the smoothest lever-action ever built and John Wayne's favorite after he spun one to cycle the action in Stagecouch.
- The model of 1894; the venerable '94 became the most popular .30-30 caliber "deer rifle" ever produced with more than 7 million sold to date
- The model 1895 President Theodore Roosevelt's favorite big-game rifle.

But his productivity was not really defined by his blatantly successful commercial arms. John Browning is reverently remembered for the *military* arms he invented and

designed for the United States and its allies.

When the United States entered WWI, its officers and enlisted men carried the finest automatic pistol available in the world at that time: the .45 caliber Colt model 1911, a John Browning design still in production today. His 1897 shotgun or "trench gun" was used by the Army, Navy and Marine Corps as it had been in the Philippine-American War (1899-1902) and would be until 1945.



Our infantry carried a devastating new weapon, the .30 caliber M1918 Browning Automatic Rifle (the BAR), a man-carried fully automatic rifle, firing the powerful .30-06 rifle cartridge. Browning crew-served .30-caliber machine guns (the water-cooled model 1917 and the air-cooled model 1918) supported these units.

Between the world wars, Browning developed the .50-caliber model 1921 M2 machine gun ("Ma Deuce" to the troops). When America entered WWII, virtually every .30- and .50-caliber machine gun used on land, sea or the air was a Browning creation. Virtually all of these weapons soldiered on through the Korean conflict and the Viet Nam war. The Ma Deuce still serves in Iraq and Afghanistan today. His last design (1926 U.S. Patent #1,618,510) was for the Browning Hi-Power pistol, the first handgun with a double-stack magazine holding 13 rounds of 9 mm Luger ammunition. This formidable handgun was introduced by Belgium's Fabrique Nationale d'Herstal (FN), in 1935 as the P35 or Grand Puissance. It has served as the service pistol for 93 nations including Britain, Canada and Israel.

While the diversity of Browning designs is staggering, their longevity is equally impressive. Few designers in *any* field have ever produced multiple products that hold their appeal for a decade. Many of Brown-

ing's creations have been front runners for a century. His 1911 .45 ACP (automatic Colt pistol) remains the most popular commercial handgun in the United States, if not the world, today. It is manufactured on virtually every continent by dozens of makers.

The 9 mm P35 Hi-Power pistol has served all over the world and remains an international best seller. Every American deer hunter knows what a model 94 Winchester

> rifle is - even if he doesn't own one (which is unlikely). Duck hunters still hold the FN Browning Auto-5 "humpback" shotgun in high accord. Skeet, trap and upland bird shooters still laud the grace and handling of the Browning Superposed over/under shotgun. At least two manufacturers now reproduce the original 1885 High Wall single shot that started it all, and the model 1895 shotgun is reproduced in China. Browning-designed cartridges in calibers .25 ACP, .32 ACP, .380 ACP, .45 ACP and .50 BMG (Browning machine gun) remain mainstays in a modern shooter's arsenal.

There is much to be learned from studying the arms he cre-

ated. When you handle a John Browning design you are struck by the fact that it just feels right. One of his pistols balances perfectly in your hand and sits there comfortably. The various controls are placed where your fingers can find and operate them without thinking about it. That is, a Browning gun exhibits virtually a perfect human interface.

Any of his rifles, shotguns or pistols just *look right*. There is a certain panache to the blending of lines and curves in metal and wood that just instills confidence and a pride of ownership. That is, a Browning design is aesthetically correct for its mission.

Browning-designed arms function reliably. The parts don't fly off or abrade one another. Those parts simply work together harmoniously, explosion after explosion. They come apart from one another simply and without tools for cleaning and lubrication. Reassembly is likewise straightforward. In general, there aren't a lot of parts to a Browning design and virtually every piece performs multiple functions. That is, Browning designs exhibit mechanical simplicity, perhaps the ultimate demonstration of sophistication.

John Browning became a skilled blacksmith long before he became our nation's most successful weapons designer. His designs reflect this. Parts in a Browning design lean toward forged components, rather than pieces machined from rod or bar stock. Lathes, shapers and milling machines were not part of the early Browning workshop – an anvil, fire and hammers were. He learned at an early age to work to his strong suit, to design for the methods and tooling available to him. I suspect this lesson never left him – he just allowed the facilities of eastern manufacturing giants to augment his envisioned and incorporated shop skills as he became comfortable with them and their simulation at Ogden. Early on, Browning saw the need to develop another skill: he learned to write, illustrate and file his own patents. It was a skill that served him well by freeing him from patent lawyers.

Based on his first contract with Winchester, Browning managed to isolate himself from the day-to-day tedium of manufacturing. He sequestered himself in his Ogden workshop and traveled east to New Haven annually to present his latest designs to Winchester. Winchester bought these routinely to avoid a competitor bringing one to market and developed the cream of this very select crop. In essence, John Browning became a once-a-year "road warrior" in an age where modern transport involved horses and a steam-driven locomotive and no telephones.

When Winchester balked at buying and making his gas-operated automatic shotgun, Browning investigated other industry players. This led him to become a frequent



crosser of the Atlantic Ocean; he developed strong and lasting bonds with Belgium's Fabrique Nationale, which built and marketed many of his designs, including the first automatic shotgun, a slew of pocket pistols and the Grand Puissance (actually brought into production by Dieudonné Joseph Saive, his partner in several efforts including the 1931 "Baby Browning" pistol). Browning died in his office in FN's Herstal plant while working on the Hi-Power service pistol.

Clearly, Browning was a bright, motivated and resourceful person. He absorbed knowledge from the technical facilities that surrounded him in youth (his father's gunsmith shop) and throughout his life (the arms factories of the world). He forced himself to learn things outside of his native interests, including drafting, patent filing and contract negotiation. Knowing these things, we still have little understanding of what made him such a success.

Browning was clearly a man of the 19th

century, yet his work dominated all aspects of the arms industry through the 20th century and still holds significant commercial worth in the 21st. His designs were manufactured in America and Europe by Colt, Winchester, Remington, Savage, Browning Arms, Fabrique Nationale and several federal arsenals during his lifetime. A far larger number of facilities clone and produce his designs today.

How could one designer be so prolific? What magic did this man know that made his designs so successful and so long-lived? How did a relatively uneducated rough hewn backwoods boy evolve to dominate an entire industry? These are tough questions to answer, but they are questions worth answering. America's future strongly depends on her ability to reawaken her industries. Commercial success and leadership requires superior products to manufacture and market. In turn, this means we need young people who know how to create longlived saleable products that clearly outclass foreign competition. We need to somehow gestate not only competent engineers, but great designers.

Browning's work methods should be the stuff of extreme interest to business schools and to educators in general. I suspect his name is all but unknown on most campuses. After all, a current interest in firearms is politically incorrect.

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