

9MM the STORY

BY FIELDING L. GREAVES

In mid-January 1985, after a series of three test programs to find a new "XM9" double-action 9mm pistol for the United States military services, the Army announced its selection of the Beretta Model 92F as the clear winner. With that decision, the legendary M1911A1 Colt .45 pistol was finally retired after 74 years of honorable service—longer than that of any other firearm in America's entire military history.

It is an ironic twist that the United States should thus replace a 74-year-old service pistol with a new pistol chambered for an 83-year-old cartridge—a cartridge, moreover, that had been developed and used against us by our enemy in two world wars.

Most Americans familiar with the .45 Colt self-loader probably have heard why the Army adopted it originally: to give our troops a heavier bullet with greater knockdown power and to replace the puny .38 revolver that had proved so ineffective against fanatic and often drug-crazed Moro tribesmen in the Philippine Insurrection at the turn of the century. Few Americans, however, know much of the background of the 9mm cartridge, beyond the facts that it was used by the Germans in their Luger pistol in World War I, in their P.38 pistol and in both British and German submachineguns (SMG) in World War II, and that it has been adopted as the standard NATO pistol and SMG cartridge.

Despite its advanced age, the 9mm Parabellum cartridge today is far and away the most widely used sidearm cartridge in the world, the standard cartridge for a number of military forces on every continent of the globe as well as for police and constabulary units. Its origin and development therefore deserve our attention.

The story of the 9mm is an involved one. It properly begins with a man named Hugo Borchardt, a German immigrant who came to the United States at the age of 16. Borchardt, destined to be one of the 19th century's foremost gun designers, worked for a time at the Winchester, Colt, and Sharps firearms plants.

While working for Winchester in the early 1870s, he developed five different models of a .44 caliber revolver. One of its two major variations featured a fixed cylinder with a thumb-operated extractor. The other boasted the world's first swing-out cylinder with a cylinder pin extractor. This 1876 Winchester-Borchardt revolver was eight years ahead of the system patented by Colt, and was essentially the same as that found today in Colt, Smith & Wesson, Ruger, and other modern revolvers. (It is a generally accepted tradition that Winchester abandoned its work on revolvers as part of a "gentleman's agreement" with Colt, whereby Colt in turn would drop its production of the Burgess lever-action rifle, thus stopping each from competing in the primary field of the other.)

The Winchester-Borchardt revolver was offered to both the U.S. and the Russian governments. When no orders were forthcoming, Borchardt left Winchester to work for the Sharps Rifle Company, where he became foreman at the age of 24. There he collaborated in producing the famous Sharps-Borchardt single shot rifle, noted for its long-range accuracy. A drop-block action rifle, it featured a concealed hammer, sometimes miscalled "hammerless."

In the late 1880s, Borchardt returned to his native Germany to work in Berlin at the arms plant of Ludwig Loewe. It was there he produced the world's first commercially successful semiautomatic pistol, the 1893 Borchardt, which was chambered for a bottle-necked 7.63mm cartridge. The legend that Borchardt first offered his pistol to the United States and turned to Germany only after rejection in America is considered doubtful, since his 1893 German patent predates by three years his 1896 American patent.

The 1893 Borchardt 7.63mm pistol was a clumsy, grotesque affair. Its clockwork-type recoil spring was housed in a large, rounded protuberance that extended back over the shooter's wrist. The most advanced features of the pistol's design were Borchardt's use of the revolutionary toggle-link locked-breech action—designed in principle by Sir Hiram Maxim, the noted machinegun designer—and the fact that Borchardt's was the world's first pistol to use a removable magazine housed in the hollowed-out pistol grip.

It was left for another employee of the Loewe plant—which by this time had consolidated with an ammunition firm to become *Deutsche Waffen und Munitionsfabrik* (DWM)—to modify and greatly improve Borchardt's design. That employee, Georg



The 1893 Borchardt 7.63mm self-loading pistol, the world's first commercially successful semiautomatic pistol and the first to use a removable magazine housed in the grip.

Luger (1848-1922), substituted a flat spring for the original clockwork type, thus eliminating the ugly rear spring housing. The resulting pistol was the first Luger, which he dubbed "Parabellum" ("for war"), the pistol that in various models would eventually become the official military sidearm of 15 nations. Its distinctive, sleek, classic design would make it the world's most widely known and easily recognized handgun, and its "feel" and pointability, would make it one of the most eagerly sought after.

Switzerland in 1901 chose the Model 1900 Luger for its army, becoming the first nation to adopt it. The Swiss wanted a slightly less powerful round than the 7.63mm, though, so DWM simply shortened it slightly and designated it the 7.65mm, the cartridge that would become famous as the 7.65 Luger, which was to be known in the U.S. as the caliber .30 Luger.

In 1901 the United States bought 1,000 of the Model 1900 Lugers for testing, but ultimately rejected the design. Meanwhile, the German military services had expressed interest and had tested the pistol, but decided that the 7.65 bullet was too small. DWM, manufacturer of both the pistol and its ammunition, found a happy solution to the problem by simply expanding the bottle-necked cartridge case to make a straight-sided case to accommodate a 9mm bullet. Such was the birth of the 9mm Parabellum cartridge, known today as the 9mm Luger and, less often, as the 9 x 19, for the 19mm length of its case.

In 1904 the German Navy adopted the 9mm Luger. Known as the Marine Model, the M1904 pistol had a six-inch barrel. Some 15 copies of the M1904 were later made up in .45 caliber for testing by the United States, but a subsequent U.S. order for 200 more was turned down by DWM, probably because the plant was tooling up to produce pistols for the Germany Army, which by now had adopted the Model 1908 Luger. This model, which had a four-inch barrel, was officially designated the Pistole 08, or simply P.08. It replaced the German Army's old M-79 11mm service revolver.

THE U.S. MEETS THE LUGER

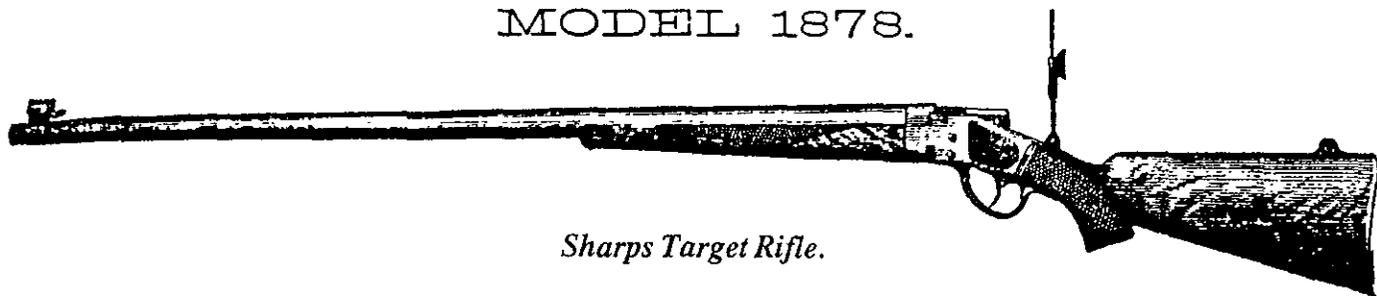
It was the large number of German Army P.08 Lugers brought home by returning U.S. soldiers after World War I that first introduced the Luger to the U.S. public. Those war souvenirs did a great deal to popularize both the pistol and its cartridge in the United States. Outside of the U.S. armed forces, however, there was only a limited acceptance of semiautomatic pistols. The U.S. was primarily "revolver country," made so in part by the mystique of the .44 and .45 single-action weapons of the Old West, in part by the heroic G-men with their double-action .38 Specials, and in part by the fact that the revolver was the weapon carried by every cop on the beat.

In the between-wars years, the U.S. stayed with its M1911 service pistol—modified to the M1911A1 in 1926—and produced no 9mm handguns of its own, but there were new 9mm developments in Europe. In 1930 all of the DWM machinery to produce the P.08 was moved from Berlin to the Mauserwerke plant in Oberndorf. In 1935 the *Fabrique Nationale* plant at Liege, Belgium, began producing "John Browning's last pistol," his superb Model 1935 "Hi-Power" 9mm self-loader. This pistol featured a radical new advance that nearly doubled the firepower of the M1911A1: a box magazine with a staggered double column of a total of 13 cartridges.

In 1938 the German military services adopted the new Walther commercial *Heeres Pistole* (service pistol) to replace the Luger and redesignated it the Pistole 38, or P.38. Luger production continued briefly but was halted early in World War II, and Mauser and other arsenals moved into the production of the P.38 only.

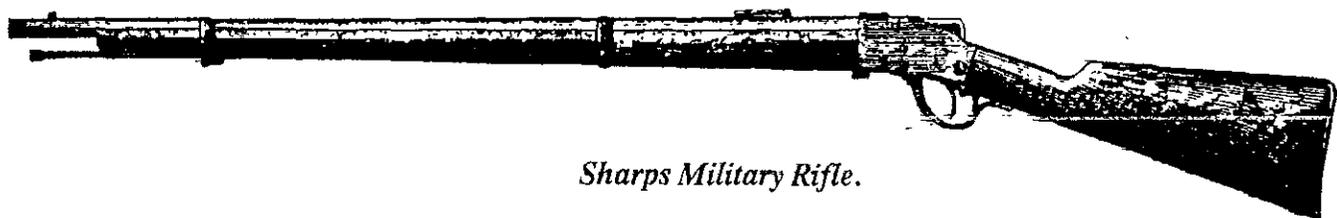
The P.38 incorporated two excellent new features, though strangely it failed to include the FN staggered column, large capacity box magazine of the Browning Hi-Power. One significant advance was its double-action mode of fire, whereby the first shot could be fired more quickly by a single pull of the trigger without the

MODEL 1878.



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Sharps Military Rifle.

Military and target models of the Sharps-Borchardt "hammerless" rifle, which actually has a concealed hammer.

need first to disengage the safety, or thumb-cock the hammer, or cycle the action to load a round into the chamber (as with the Luger, Colt, and Browning, depending on one's method of carrying the single-action weapon). After firing the first round double-action, the cycling of the slide on recoil accomplished the reloading and recocking and allowed the subsequent rounds to be fired in a single-action mode.

The other notable advance of the P.38 was its slide-mounted safety, which would lock the firing pin and drop the hammer of a cocked and loaded weapon without the need for touching the trigger. Disengaging the safety left the weapon ready for the first shot. The "hammer-drop" safety had an additional advantage—by re-engaging the safety it was possible to unload a chambered live round manually with the safety still on, something that could not be done with the frame-mounted safety of the Colt or Browning, which had to be disengaged for unloading.

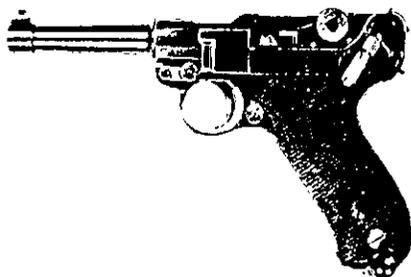
Yet another advantage of the Walther P.38 to the Germans in wartime was that it was cheaper to manufacture. According to a reported 1943 German document, it cost 35 *reichsmarks* to make a P.08, compared to 32 *reichsmarks* for the P.38, not a great difference for a single pistol, but in production of one million P.38s the savings reportedly would have paid for nearly a dozen Tiger tanks.

When the Germans occupied Belgium and took over the FN Browning pistol production, Belgian employees managed to smuggle FN blueprints of the Model 1935 to England, where they were sent on to Canada. There the Toronto firm of John Inglis produced 9mm Brownings, providing a quantity to Greece and making more than 200,000 for the Chinese Army of Chiang Kai-shek. In fact, the Browning eventually became the official sidearm of England, Canada, and Belgium as those nations switched to a 9mm weapon in the post-war years.

War's end and the return of millions of U.S. servicemen brought a great new influx of 9mm Lugers and Walthers—P.08s and P.38s—into the country, which vastly increased their popularity with Americans. Arms firms selling used military weapons added more. The military services showed a renewed interest in switching to the 9mm cartridge, but the large existing stocks of .45s in the inventory as a result of massive production during World War II caused official interest to be short-lived.

Civilian interest remained high, however, and for the first time, U.S. arms makers tooled up to produce 9mm pistols. Colt provided its single-action Commander model in 9mm, while Smith & Wesson went a step farther, producing the double-action Models 39 and 59. After collectors had rounded up most of the remaining military Lugers, the Mauser firm resumed Luger production for a time in the early 1970s, making commercial models available for the first time since before the war.

The formation of the North Atlantic Treaty Organization's (NATO's) military alliance led in 1962 to the NATO document known as STANAG 4090, which called



The Army Luger Pistole 08, which saw service in the German Army in both world wars. This 9mm model was a later development of Luger's original 7.65mm model 1900, the first military Luger pistol.

for the standardization of small arms ammunition in the interest of interoperability among the member nations. The 9mm Parabellum was selected as the NATO standard pistol and SMG cartridge. Although the United States had earlier adopted the NATO 7.62mm (.308) and later the 5.56mm (.223) rifle cartridge, it remained for many years the only holdout in clinging to its pre-NATO .45 pistol cartridge. Interest in switching to 9mm waxed and waned following the Korean War, but again the decision was deferred due to the large stocks of .45s on hand.

Three imperatives at last forced the United States to join the rest of NATO in adopting the 9mm. One was the discovery by a Congressional committee that the military services had accumulated piecemeal over the years no less than 25 different makes and models of handguns, including some 136,000 revolvers of various configurations in caliber .38 Special.

A second imperative militating toward adoption of the 9mm was the belated realization of the decrepitude of most of the .45s in the inventory. Finally, a spot check of a number of .45s in stock at the Anniston Arsenal in Alabama found that about 40 percent of them had hairline cracks or other indications of serious metal fatigue.

Those factors led to the establishment of the Joint Service Small Arms Program (JSSAP) to conduct tests of available pistols to select a double-action 9mm to replace the .45.

In the final round of testing of the eight competing pistols (see Table 1), the Beretta Model 92SB-F was the outstanding winner, with the Swiss-German SIG-Sauer Model

PISTOLS TESTED BY JSSAP		
Smith & Wesson Model 459	14-rd mag	U.S.
Beretta Model 92SB-F	15-rd mag	Italian
SIG-Sauer Model P226	15 rds	Swiss-German
Heckler & Koch Model P7	13 rds	German
Walther Model P88 (evolved from P38)	15 rds	German
Steyr Model GB	18 rds	Austrian
Fabrique Nationale Browning Model ADA	14 rds	Belgian
Colt Model SSP (stainless steel pistol)	14 rds	U.S.

Table 1

P226 the runner-up. According to the current Beretta brochure on the winner, in claims which both JSSAP and the U.S. Army have declined to contradict, "The Beretta 9mm has consistently been the winner in every U.S. government performance trial by a wide margin against all competition. In all the important reliability tests (average number of rounds fired to malfunctions) the 92SB did more than twice as well as its nearest competition and from five to 50 times better than the others."

Initial quantities of the new M9 Beretta are expected to go to the Coast Guard, as the service most "in action" at present by reason of its war on drug smugglers, and to the Marine Corps, our quick response assault force. Air Force needs will be met later, while the Army, which has the greatest number of .45s on hand, is to be taken care of last.

The first two consignments of pistols, under the five-year contract for a total of 315,930 units, will come from Beretta's Italian-made stock and from Italian parts assembled in the United States. By the end of the third year, production must be fully switched to the Beretta Maryland plant at Accokeek, across the Potomac from Mount Vernon, and at least 134,000 pistols must be made entirely with U.S. parts and labor.

The 9mm has several notable advantages over the M1911A1. The M9's loaded chamber indicator allows the user to tell at a glance or a touch whether there is a round in the chamber. With an ambidextrous safety, a lever on each side of the slide, and an easily reversible magazine catch release button, the M9 accommodates left-



The principal German sidearm of World War II, the Walther P.38 double-action 9mm pistol.

	<u>M1911A1 .45 Colt</u>	<u>M9 Beretta 9mm</u>
Caliber	.45 ACP (Automatic Colt Pistol)	9mm Parabellum
Pistol weight, loaded	44 ounces	41 ounces
Pistol weight, empty	39 ounces	34 ounces
Bullet weight	230 grains	115 grains
Muzzle velocity	860 fps	1150 fps
Muzzle energy	378 ft-lbs	365 ft-lbs
Magazine capacity	7 rounds	15 rounds
Action mode	single-action	choice of single- or double-action
Safety	frame-mounted safety on left only, to lock slide & hammer; grip safety; half-cock <u>notch</u> .	loaded chamber indicator; ambidextrous slide-mounted safety to disengage firing pin & sear, drop hammer, and permit cycling action to unload with safety engaged.
Sights	square post front, square notch rear.	square post front, square notch rear, each with fluorescent dot to aid sighting in poor light.
Weight of one loaded cartridge	327 grains	194 grains
Weight of one million rounds (less weight of containers)	23.36 tons	13.86 tons

Table 2

handed shooters. Its double action and its larger magazine capacity provide a faster first-shot capability and greater potential firepower. The slide-mounted hammer-drop safety makes it a safer, more "idiot proof" firearm (see Table 2).

Many old timers in the United States regret the passing of the venerable .45 Colt autoloader. Nevertheless, in adopting the Beretta, we have, on balance, taken a long step forward. The combination of a safer pistol, a faster first-round capability, and an increased magazine capacity gives any individual soldier armed with the pistol a marked combat edge that is no less important in the nuclear age than it was in the days of the crossbow and the faster firing long bow. In choosing the Beretta, there is no doubt that we have picked the best.



Fielding Lewis Greaves is a retired Army intelligence officer. A former China area specialist and former Field Artillery officer, his assignments have included two attache tours, two Army Language School courses, two tours in Army Intelligence at the Pentagon, and three years as an instructor at the Command and General Staff College. His articles on a wide variety of subjects have appeared in various publications.