

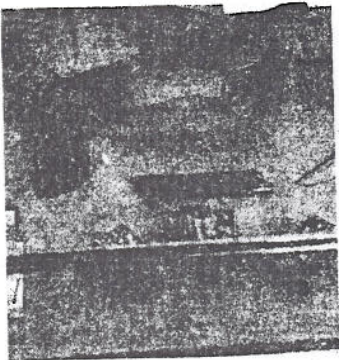
*for Whistling
from Bismarck*

Before the National Firearms Act of '34, anyone in this country could buy a silencer—no questions asked. Today they're illegal, but in some parts of the world silently sanctioned silencers still deliver . . .

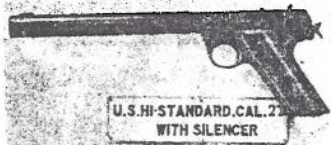
By J. D. TRUBY

WHISPERING DEATH

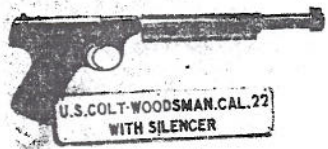
photo →
The movie, "Ambush Bay," released in 1966, described USMC counter espionage in WWII. There is no record of silenced 45 used at that time.



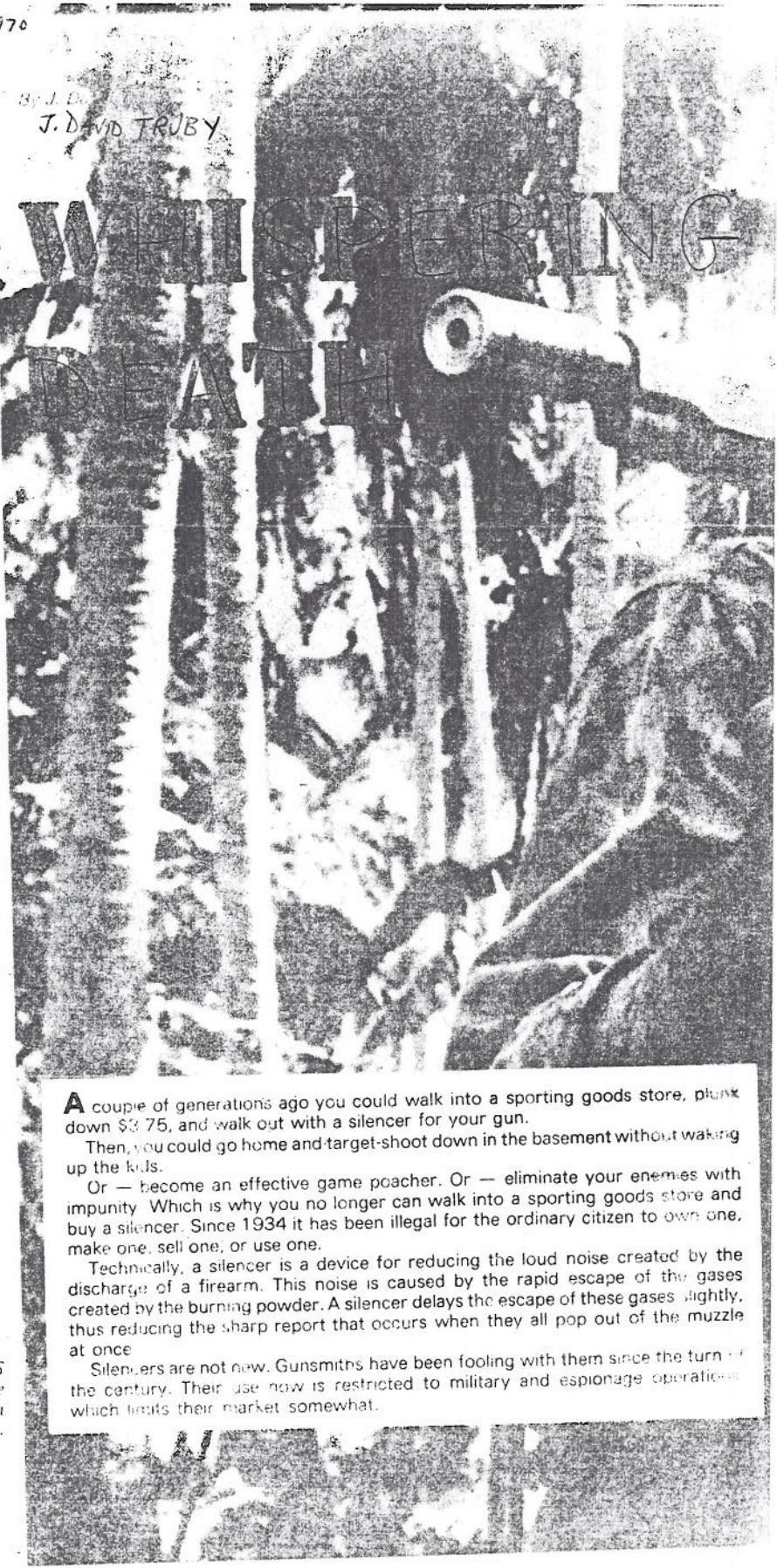
Material, gun taken from U-2 pilot Gary Powers are on display in Moscow.



Silencer is integral to CIA models of High Standard HD military types. Gary Powers carried this type pistol.



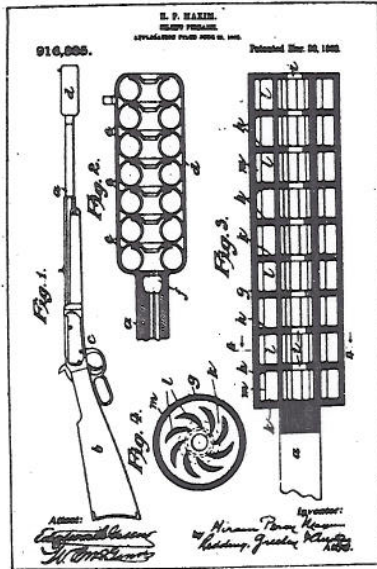
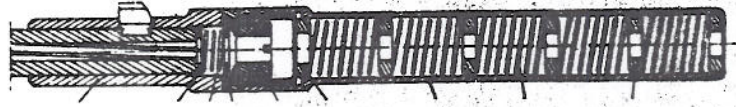
Silent Woodsman was a favorite of OSS in WWII. Some recent accounts have Green Berets still using this weapon for special missions and operations.



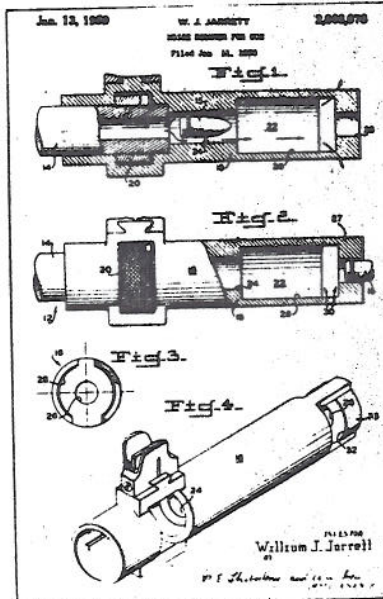
A couple of generations ago you could walk into a sporting goods store, plunk down \$3.75, and walk out with a silencer for your gun. Then, you could go home and target-shoot down in the basement without waking up the kids. Or — become an effective game poacher. Or — eliminate your enemies with impunity. Which is why you no longer can walk into a sporting goods store and buy a silencer. Since 1934 it has been illegal for the ordinary citizen to own one, make one, sell one, or use one. Technically, a silencer is a device for reducing the loud noise created by the discharge of a firearm. This noise is caused by the rapid escape of the gases created by the burning powder. A silencer delays the escape of these gases slightly, thus reducing the sharp report that occurs when they all pop out of the muzzle at once. Silencers are not new. Gunsmiths have been fooling with them since the turn of the century. Their use now is restricted to military and espionage operations which limits their market somewhat.



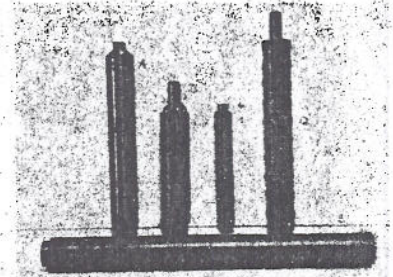
Cross section of French silencer, unique system of springs, discs, which cause gases to lose energy by exerting force.



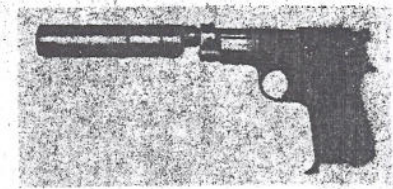
H. P. Maxim invented his first silencer in 1908 but it was a failure. This is the improved, successful model made in 1909.



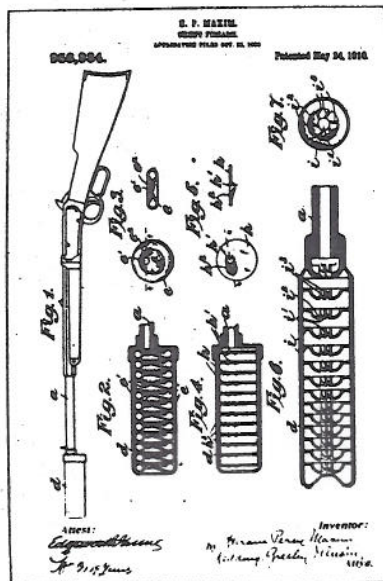
The Jarrett silencer doesn't reduce noise, but alters the sound to about 22,000 CSP, which is well beyond human hearing.



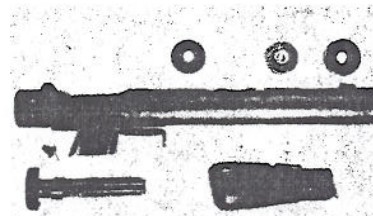
Military silencers are: (A) '03 Springfield; (B&D) unknown guns, 30 cal.; (C) Woodsman, HD auto pistol; (E) unknown.



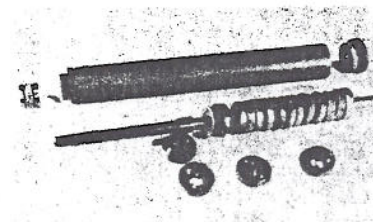
Little is known about this rig. Pistol is .22 cal. Beretta M1934. Unidentified silencer screws onto custom barrel of gun.



Maxim's 1910 model was his greatest success. The non-military silencer, though impossible to clean, was very popular here.



Mysterious "Hand Firing Device MK II" is a .45 cal weapon devised in WWII and thought to be used by underground forces.



In England, Parker-Hale "sound modifier" is semi-legal. British forces used it on Mossberg rifle in WWII, Korea and Africa.

The first sound reducers came into use just after the turn of the century, when many inventors were producing silencers of all sorts. Most did not work very well, and some blew up the guns they were fitted to.

One of the best known pioneers in the field was Hiram P. Maxim, who patented his first silencer in 1908. Maxim believed that the gases had to be whirled to reduce the noise level, and his early models were designed to swirl the gases around in the chamber of the silencer.

Later, however, he found that he needed only to delay the release of the gases to reduce the report. His initial model was a crude, inefficient affair and he did not market it. The following year, he introduced an improved model, and the Maxim 1909 became the first efficient silencer to be marketed in this country.

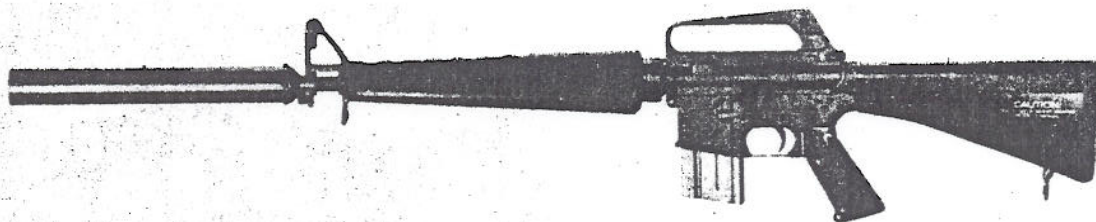
The finest of the Maxim silencers was the model of 1910. It was also the most widely distributed in the country, manufactured and sold by the Maxim Silent Firearms Co. of New York It



Several photos supplied through courtesy of "Gun Digest" & Aberdeen Proving Ground.

Green Beret firing M-16 with the sonic noise suppressor. With telescopic sights, rig is a good medium-range sniper weapon.

M4 Noise Suppressor attached to modified version of M16A. Unit is used in Vietnam.



was stamped from sheet metal, could not be disassembled for cleaning, and was advertised by one sporting goods company for \$3.50.

Maxim's 1912 model was designed with a military market in mind, and several styles of that model were tested by Ordnance with the M1903 Springfield. The report of the weapon was silenced, but the sonic boom of the bullet was not. General Julian S. Hatcher, who tested the Maxims with the Springfields at that time, said the report was cut off, but that the passing of the bullet sounded like someone tearing a sheet.

"Bullets fired from those Springfields would 'crack' as they passed close to a solid thing like a tree," General Hatcher noted. "I fired one of the silenced guns down an old, straight road on post, and the bullet cracked each time it passed a telephone pole. The whole thing sounded like a burst of rapid machine gun fire."

Although the 1912 model was not sold to the government in great quantities, several were used for special pur-

poses. General Pershing's Mexico expedition included several sharpshooters who had been issued silencer-fitted Springfields.

Another early inventor was Robert A. Moore of the Moore Silencer Co. in Chicago. In 1912, his second model silencer was tested by the U.S. Ordnance Dept., and in 1914, the Army bought 100 of them.

During World War I, selected army snipers were issued silencer-equipped 1903 Springfields. They were used successfully, and the sniper was not given away by the report of his weapon.

The morale problem created by the "whispering death," as one German officer termed the silenced snipers, was considerable.

In those early years, silencers were legal, but private sales did not exactly soar. The better Maxim, Moore, and England's Parker-Hale silencers cost no more than \$5, and could be bought through the mail or from sporting goods, general, and hardware stores.

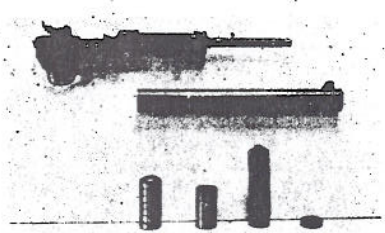
Another popular silencer was the Hopkins and Allen "Noiseless," made

from a sheet steel stamping, and available as a factory-installed accessory on Hopkins and Allen rifles. Most of these rifles were sold to various shooting galleries around the country, although some found their way into private homes.

Ownership or the use of silencers became a serious felony under provisions of the 1934 National Firearms Act. It is possible, however, to own a working silencer by getting the permission of local, state, and national authorities, and by paying a \$200 tax which registers the silencer with the ATFD.

England and France also prohibit silencers, as do most nations, but both countries allow a specially modified sound muffler to be used by special permission under certain legal circumstances. However, the major market for silencers was the military.

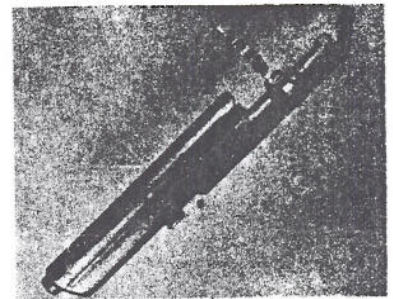
Britain's late Lt. Gen. Noel Mason-MacFarlane had a silencer as an essential ingredient to a 1938 plot to assassinate Adolf Hitler. Serving as a military attache in Berlin at the time, the General



Silencer built into carbine does not seem to reduce supersonic cartridge to subsonic speed. Contradictory, but effective.



This silenced M1 carbine was produced for OSS operations. Though not a classified weapon, few details are available on it.



Moore model was tested by U.S. Army Ordnance, but not widely used in the service.

lived in a hotel room overlooking Hitler's reviewing stand for state parades. The distance was just over 100 yards.

"All that's needed is a crack shot and a rapid fire rifle with a telescopic sight and silencer," the General told British officials during a visit home.

The plan might have averted a major war, or it might have started it a year sooner. In any case, British officials turned down the plan, calling it "unsportsmanlike." Spying and war, however, are not very sporting propositions.

Americans also found the secret business somewhat distasteful. For although the spy business began more than 5,000 years ago with the Egyptians, Uncle Sam didn't turn secret agent until the early days of World War II, when the Office of Strategic Services (OSS) was formed.

Designed for covert raids and sabotage missions, the OSS was the muscle branch of our military intelligence systems during the war. Silencers were standard equipment in the OSS.

One of the first weapons designed for the OSS was a special version of the M1A1 Thompson submachine gun. Few were made, and no record of their use or performance is available. The Thompson is not a good combat gun, being heavy and quite susceptible to

stoppages under field conditions. Mechanically, it is a noisy gun, and unsuited for a silencer.

The OSS then contracted with Hi-Standard to produce 1,000 M3 submachine guns fitted with the silencer developed in 1942 by Bell Laboratories. These weapons were used in OSS operations, primarily in Europe. Although little is known of their exact use, one verified report is that some of the pioneer airborne and commando glider units to hit France on the morning of June 6, 1944 were carrying these guns.

This silencer was made of a perforated portion of the barrel, incorporating screen packing and screen washers. It was described as being moderately effective, as well as cheap and easy to build.

Others in the OSS preferred the lighter, more dependable, and more accurate British Sten. This fine weapon, designated the Sten MKIIS, had been used successfully by British Commando units as well as some regular troops prior to its testing by the OSS.

The silenced model had a shorter barrel and recoil spring, as well as a lighter bolt than the standard Sten MKII.

A canvas insulating cover was laced around the barrel, just ahead of the magazine. This prevented serious burns on the hand of the man firing the weapon.

The MKIIS was fired only as a semi-automatic weapon because full automatic fire burned out the silencer after a clip or two.

The OSS also had a standard .30 caliber M1 carbine fitted with a silencer, although little is known about its use or success. According to one report, the silenced carbine gives off only a muffled "piff" when fired. This is despite using the standard carbine round without having any holes drilled

in the barrel to let the gases escape slowly, thus reducing the speed of the supersonic bullet to relatively noiseless, subsonic levels.

In addition, the recoil system of the standard carbine is inoperative in the silencer model because of the shortened barrel. These obvious design contradictions are technically of great interest in view of apparently efficient performance.

A shroud of secrecy has smothered information about another silenced weapon from WWII. Designated as Hand Firing Device, Mark I, it is a bolt action, repeating pistol in .45 ACP, and was manufactured late in WWII by the U.S. Naval Gun Factory.

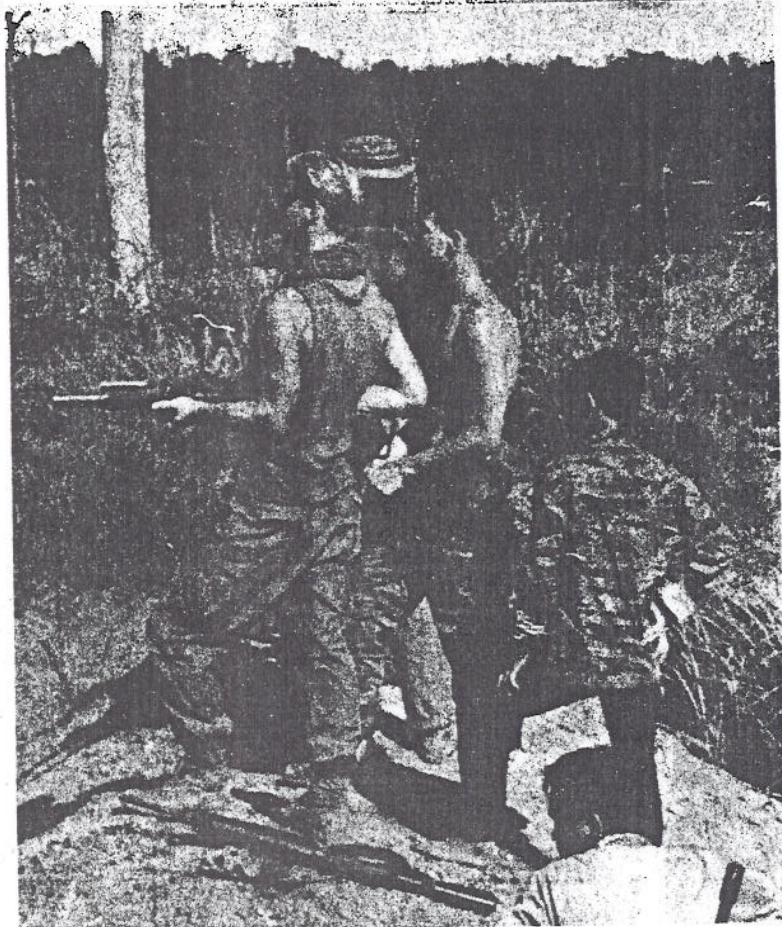
It uses the same clip as the M1911 .45 automatic and a modified Mauser action. The silencer is within the barrel housing. This weapon is still classified and little is known about it.

The OSS choice for a silenced handgun was the Colt Woodsman. They also used an automatic pistol similar to the Hi-Standard HD Military model, which reportedly is now being made for the CIA. In the Woodsman, however, the silencer is offset in design, like the old Maxim silencers, allowing the original gun sights to be used without any adjustment.

With the end of the hot war and the beginning of the cold one, the OSS kept their silencers and secret ways



Marine fires an M-16. Barrel minus flash guard is inserted into noise suppressor.



U.S. Marine engineers in Vietnam try out Sten guns equipped with silencers. This weapon has found considerable use by both the British and U.S. forces at various times.



Pictured is the Sten MK IIS. The canvas wrapped around the barrel just back of the silencer is to provide protection and prevent serious burns to the hand of the shooter.

to become the ultra quiet CIA. Breaches of cover seldom made the public press until the U-2 incident.

The CIA's famous U-2 spy pilot, Capt. Gary Powers, carried a Hi-Standard HD military model, fitted with a silencer similar to the one Bell developed for the OSS in World War II. The gun was carried in a special shoulder holster.

The two silenced 22 semiautomatic pistols proved to be highly effective, accurate, and nearly silent. An observer standing four feet away from a gun being fired was barely able to discern

a quiet "plick." The primary noise heard was that created by the functioning of the gun.

This WWII silencer has four rows of 11 holes drilled into the minimum thickness barrel. This permits the gases to bleed off slowly, which lowers the speed of the bullet, creating a subsonic round. This allows the use of a standard .22 Long Rifle, HP cartridge, which is normally a supersonic bullet.

Bronze screening is wrapped around the barrel, then a long, tubular housing,

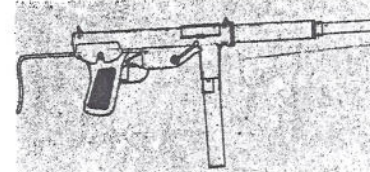
(Continued On Page 56)



The British also use this silencer-equipped version of the Sten MK VI in Vietnam.



Prior to the M3, OSS units had access to a Thompson submachine gun with silencer.



OSS used silencer-equipped M3 in WWII. Copies are being used by enemy in Vietnam.



Chinese submachine gun with silencer is from a page of the original field manual.

AUGUST 1970

This is one of several features of the U-2 flight that makes me sincerely believe that CIA deliberately planned that the plane should be captured - in order to embarrass Eisenhower and sabotage his detente with the Soviets. I am absolutely convinced of this.

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Whispering Death

(Continued From Page 29)

packed with bronze screen washers, is fitted to the assembly. The whole thing is then fitted to the Hi-Standard military automatic.

The late 50s and early 60s were periods of research and development for silenced weapons.

Britain's tiny 9mm Prototype gun is an ideal choice for quiet operation. First developed after the Korean war, it had a barrel of about 8" and an overall length of just 14". It was tested with fitted silencers, and several were brought to this country for study and trial by our espionage forces. It was described unofficially as an excellent assassination weapon when fitted with a silencer.

A unique innovation in silencer design occurred in 1956, when William Jarrett perfected his Jarrett Noise Reducer, a silencer with obvious advantage to military and espionage markets.

Basically, the Jarrett Noise Reducer, which he had been working on since the very early 1950s, differed from the traditional silencers which attempt to muffle or silence the escaping gases. The Jarrett device converts these sounds into high frequency waves which are beyond the human range of hearing, which is usually around 21,000 cps.

Jarrett applied for a patent in Jan., 1956, and it was granted three years later, then assigned to the U.S. Army. However, the government didn't exactly jump at the idea, although it tested well and seemed like a "sound" idea.

Then, the cold war turned into the undeclared war in Vietnam. Since the OSS didn't exist anymore, its likely successors, the CIA and the army's elite Green Berets teamed up.

Green Beret teams are attached for duty with the CIA in Vietnam, usually in highly specialized Study and Observation Group operations. Some of these teams have been spotted with their own equipment by other soldiers.

"I know a couple of these people, and they're tough... Once I saw them loading into an unmarked, white chopper with several silencer-equipped L2A3 Sterlings (a British submachine gun), a former ordnance officer told me.

Another British weapon, a silencer-equipped model of the Sten MKVI, is also used by our people in Vietnam. Essentially, the MKVI is a modification of the Sten MKV, which was the post-WWII British submachine gun until the Sterling became standard in 1953. The MKVI has a shorter barrel than the MKV, and is, of course, silenced.

Like its ancestor, the MKIIS, the MKVI is fired semiautomatically. Unlike the MKIIS, this newer version features a wooden pistol grip forward of the magazine, eliminating the need for the canvas hand protector.

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One of the more practical and effective designs for a shotgun silencer was that of Charles Kennedy in 1910. Another good one was developed by the Parker Co. of London during the late 20s.

Shotgun silencers have been tested and have seen some field service by our military, domestically and in Asia. I was able to learn that the weapon is a competent device, using a Stevens 77E shotgun and a specially designed silencer. No technical details or performance data are available.

In Southeast Asia Special Forces men have been seen with silenced M1911A1 .45 automatics.

"Silencers are a tremendous help in night patrol work," a Green Beret officer told me. "Sentries can be killed with a knife, garrote, or karate, but that means you somehow have to surprise him. A silenced, small caliber weapon can do the job from a greater distance. Certainly we use them!"

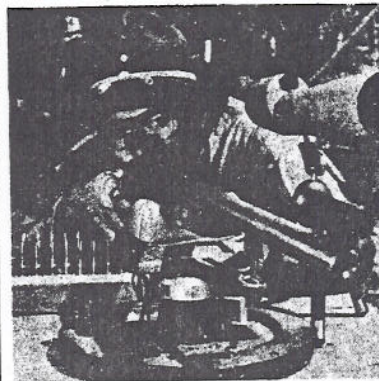
Not surprisingly, the other side uses silencers too. Since the mainland Chinese have stolen just about every other military firearms design from the British, the Russians, or us, it isn't too surprising that they have copied the design of the OSS M3 greasegun with silencer for their Vietnamese allies.

The weapon is an exact copy of the old M3A2 greasegun, except that this one is in 9mm Parabellum. It's known as the Model 37 submachine gun, and a couple dozen have been captured in Vietnam. It is reportedly used by North Vietnamese regulars in night attacks, and tests have shown it is effective in reducing about 75 per cent of the gun's operational noise so the firing and mechanical sounds are inaudible at distances much beyond 300 meters.

The Chicom M37 has an effective range of about 53 yards, and the silencer consists of two tubes fitted over the barrel, which contains four lines of 13 5mm holes each. The gun is recoil operated, firing from an open bolt.

The silencer contains not only a roll of metal screen, but also a piece of wool soaked in oil. The system of oil and air

"I am now a Hornady fan"



"I find through experimentation that your bullet is definitely a better projectile."

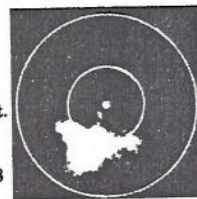
So stated Mr. Steve Mento of Fremont, California, after his standard .308 rifle and the Hornady 168 gr. Boat Tail Match bullet captured the May 1969 Iron Hunter Rifle Match of the California Rifle & Pistol Association.

Mr. Mento continued... "I get a tremendous 'kick' out of taking home the 'gold' using the Hornady bullet. It lends itself well to 200 yd. & 300 meter shooting. I think this is largely due to its shape."



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cooling is, according to U.S.M.C. sources, very effective.

Some Green Beret teams and CIA personnel operating in Vietnam are also using a domestic, silencer-fitted submachine gun similar to the one being used by the Viet Cong. But, little is known about that weapon.

During WWII, the German military, after taking over the arms works in Prague, began issuing some Czech Model 27 semiautomatic pistols with silencers. This blowback pistol was chambered for the 7.65mm round. It is claimed that this gun was extremely effective as well as being nearly silent.

The Red Chinese have also produced an extremely efficient silenced pistol (see "VC Assassin Gun," this issue).

The U.S. M4 Noise Suppressor hooks onto a modified M16A to reduce muzzle blast. This combination has had limited field use, primarily as a harassment weapon. The M4 device does nothing to reduce the speed of the bullet, so it is technically not a full-fledged silencer.

The levels of silencer efficiency depend on several factors. If the muzzle velocity of the bullet is subsonic and the breech of the firearm is tightly closed, the noise of the report is almost completely eliminated by using a silencer. However, a high velocity projectile will create a cracking noise anyway, creating its own sonic boom after leaving the muzzle.

Throw away the Hollywood image of the silencer as a handy, little gadget to clip on the end of the gun, especially a revolver. Silencers are big, long, and heavy. The better models, the ones the pros use, are built right on the end of specially designed guns.

Obviously, the larger the caliber, the longer and bulkier the silencer. A .38 caliber auto, for example, would require a silencer at least 11" long and 2" in diameter.

An acquaintance who used to be in the semi-military service, once showed me the silencer he had been issued for a particular task. It was made to fit a .32 foreign auto and was 8" long and about 2" thick.

In addition to bulk, silencers create mechanical problems too. For example, a heavy silencer used on a heavy, recoil-operated gun like the .45 or P-38, creates enough weight to interfere with the barrel recoil, causing the weapon to malfunction.

In terms of optimum efficiency, even semiautomatic or fully automatic weapons are not totally silent. In addition to the muffled report, the mechanical noise produced by the moving parts can create quite a racket.

The ideal weapon for a silencer is a manually-operated, locked-breech, single shot or repeater. It can be either rifle or handgun. However, a silencer

used to a revolver is almost useless. The gases easily and noisily escape from the open areas between the cylinder and the barrel.

Next time you see your favorite movie or television spy screwing a deadly looking silencer onto his revolver, start hissing, because the technical director's trying to put one over on you!

Barrel Warping

(Continued From Page 33)

it plenty of time to cool off in between. The MPI was 1" below the aiming mark.

I next fired nine shots rapidly at random from the same barrel. Then, while it was still hot, another careful group at the aiming mark.

The MPI had gone up 4", equivalent to 7" at 35 yards.

But it should be noted that the exposed part of the barrel was not really hot, only nicely warm, after the rapid fire.

I am sure that with full trap loads in a 12 ga. I should have got a hotter barrel and a more conspicuous result — probably justifying my calculation of 12".

It should be noted that, for a given temperature rise, 30" barrels would warp more than 26" barrels, and give a correspondingly greater deviation.

Conclusion

Two points emerge sufficiently clearly from all this. The first is that the practice of always firing both barrels from an over-and-under is undoubtedly justified in competitive shooting. The second is

that there is a clear case for the normal construction of guns, so as to rid them of trouble, and the consequent ammunition. It would present any difficulties.

The two barrels, I suggest rigidly assembled at the muzzle only. At the muzzle, they are joined by a sliding dovetail that they would be free to separate independently of one another. There should be no contact between them. This would avoid a tendency arising from internal stresses in the barrels.

An incidental point is that in which there are marked mass around the circumference of the barrel's cross-section, such as a barrel gun with a heavy ribless one with a barrel thickness, will warp until it becomes thermal.

So, pump guns and not above suspicion in the acquaintance says that score with the first through his self-loader, but never or fifth.

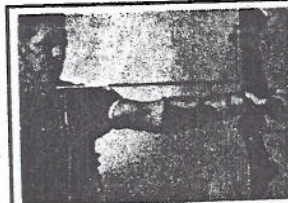
This may be the reason

Russians I

(Continued From

of the Fort Ross cannon vessel at sea.

In 1839 the Czar, because of the economic failure, ordered the fort abandoned. Its furnishings were sent to Captain John Sutter. Sutter wanted the



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