

A standard ground model Lewis Gun. Credit J. David Truby.

# The Leaner, Meaner Rattlesnake The Lewis Assault Rifles

by J. David Truby

Col. Isaac Lewis is credited with many inventions, both civilian and military. The reputation of his famed Lewis light machine gun has totally overshadowed another of his World War I designs, his BAR-competing automatic rifle that resembled World War II's assault rifles.

Highly distinctive in appearance, the original Lewis gun has a large, round ammunition pan on top of the receiver and its barrel is enclosed in a long, round aluminum tube, fluted at one end.

In its day the Lewis gun was a real innovation, weighing just 26 pounds against its competition: Benet Mercie (30 pounds); Colt (93 pounds); Vickers (68 pounds); or the bulky Maxim at 153 pounds.

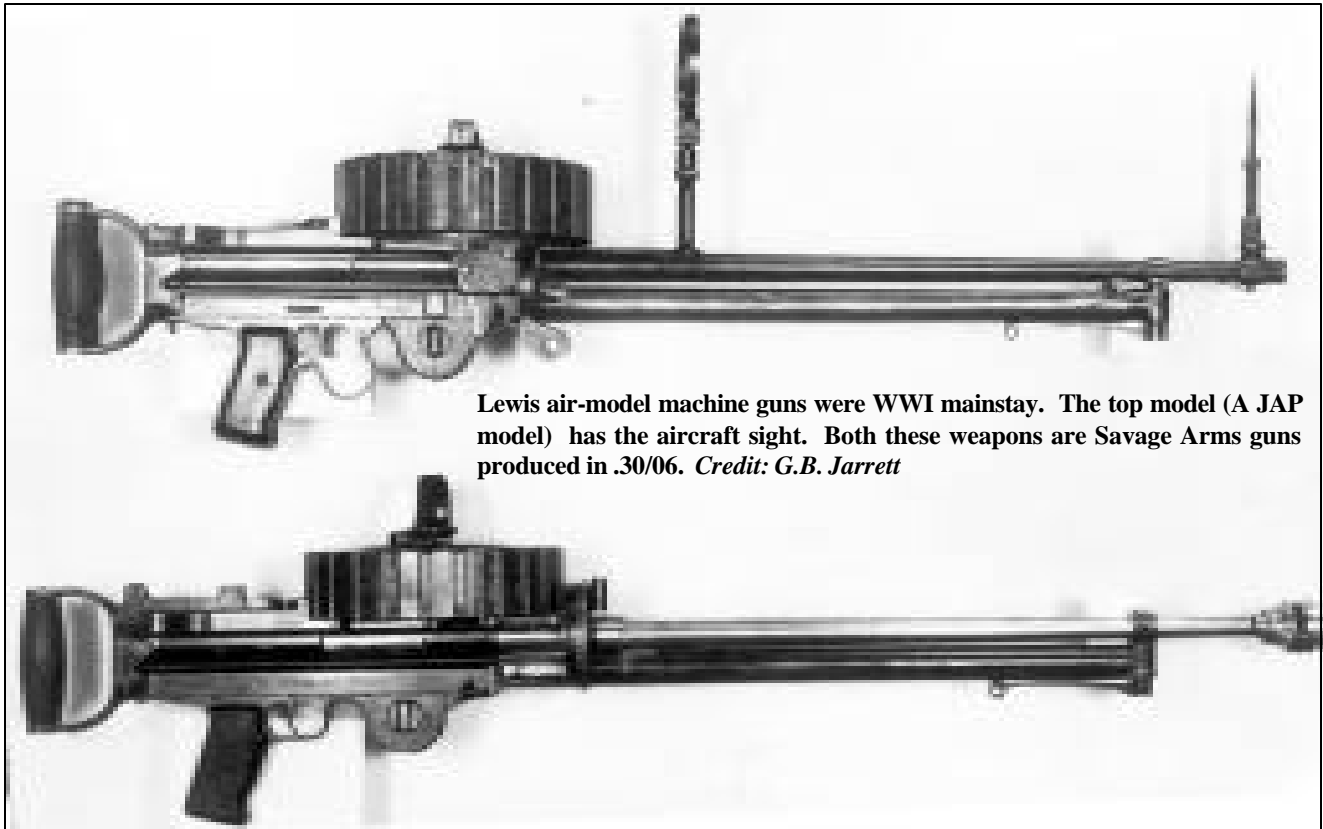
Nicknamed the Belgian Rattlesnake, the Lewis light machine gun was also an amazing World War I success story. By the spring of 1916, more than 50,000 Lewis guns were in combat use by allied troops, including late-arriving American marines.

An American marine officer related the combat soldier's love for the Lewis Gun when he related in 1918, "A single

*In the animal world, the bigger the brute, the nastier the bite. In reptiles, though, sometimes the smallest snake has nastier venom than its larger cousins, e.g., the pygmy rattlesnake. Herein, gun makers constantly trying to put lethal bite ahead of bulky size.*



**Right:** Isaac Lewis at age 42, when he began work on his concept for an air-cooled light automatic weapon, which became the Lewis Gun.



Lewis air-model machine guns were WWI mainstay. The top model (A JAP model) has the aircraft sight. Both these weapons are Savage Arms guns produced in .30/06. Credit: G.B. Jarrett

Lewis in the hands of a good man will work as much destruction as 50 rifle men.”

A brilliant designer and engineer; Lewis was a prolific, imaginative inventor and an unselfish, patriotic military officer. He not only gave the design of his light machine gun freely to his country, he also donated all of his other royalty payments back to the US treasury.

Born in Pennsylvania in 1858, Isaac Lewis was interested in natural mechanics and studied to be a science teacher, which he was for two years. He then entered West Point, graduating in 1884, with top grades and plaudits for his design ideas conceived while he was still a cadet.

Retired from active duty after 30 years of distinguished service and contribution, Col. Isaac Lewis traveled to Europe during World War I to oversee the production and training programs for his famed light machine gun.

**Right: A copy of the receipt given to Isaac Lewis when he turned back over \$10,000 to the U.S. Treasury as a donation. The amount represented his royalty payments for the Lewis Gun. Credit: J. David Truby.**

Yet, never content to sit still, the 58-year-old Lewis was already designing future military weapons. In 1916, he announced plans “to build a strong small arms company in the US which will be fully equipped to meet the inevitable future demand for rifles, machine guns, other small arms and trench weapons.”

Lewis had begun modifying his existing Lewis gun even as the first production models rolled out of the factories in 1915. Never a shy man when it came to promoting his weapons, Lewis explained, “I want to develop an even lighter weapon for the individual American soldier.”

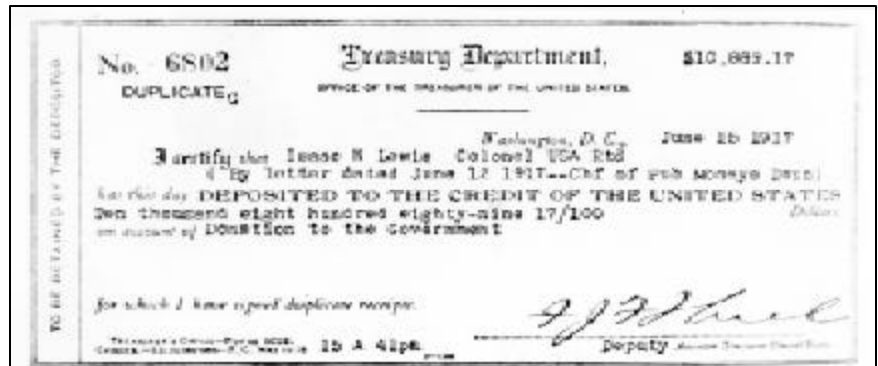
He said that his basic design was good, but added, “I need to lighten the weapon. What I’ve seen here (Western

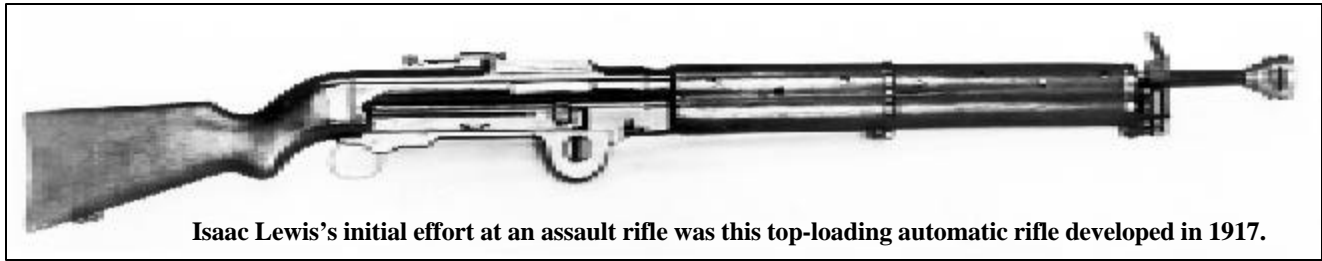
Europe in 1916) the need is for a mobile, one-man automatic gun for trench assault and other attacks.

“My first mobile design was late in 1915, when I removed the gas cylinder, radiator and casing, then altered the mechanics to operate the piston by blow discharge alone,” Lewis explained.

“The result was a 16-pound weapon and it worked well, but I knew I’d do better. I could not devote full time to it because, after all, we were still in the midst of a serious world war.”

Despite the successful trials, the inventor was not satisfied with his lighter Lewis gun. Ironically, the British would adopt this same stripped-down, modified Lewis gun for maritime and anti-aircraft





Isaac Lewis's initial effort at an assault rifle was this top-loading automatic rifle developed in 1917.

use in World War II.

By the end of 1916, Lewis had produced a 14-pound automatic weapon. He said, "I can do better. This one is still between and betwixt, not a rifle and not a machine gun. I will go back to a design idea I first had early this year, a light automatic rifle that can be used in the assault by each soldier."

Although he did little with that design, Lewis still contacted US Navy Commander J.P. Jackson, a small arms ordnance expert, to show him the plans for the new weapons.

Lewis's 1916 design for what he called his "assault phase rifle" weighed 13 pounds, compared to the BAR's 81/2 pounds, was magazine-fed, with select-fire capability. When he demonstrated his prototype weapon, he announced, "My rifle is as accurate as any weapon our ser-

vices now use. But, when switched to fully automatic firing the new Lewis gun will give one man the firepower of many men."

Obviously, this was Isaac Lewis's answer to the BAR, and he immediately patented his design. At the end of 1917, Lewis and Cmdr Jackson made the rounds of the War Department trying to interest ordnance people in the new weapon.

"The new Lewis gun did as well as the old Colonel predicted it would," noted a NEW YORK TIMES writer in the spring of 1918. "He also announced that at 12 pounds it was a pound under the design specifications.

Also commenting on the weapon, Wayne Mellon, a veteran military journalist of that era, wrote, "Col Lewis has treated us to another excellently designed weapon. He's proving that his great ma-

chine gun is not his last word in ordnance design and now has this marvelous new shoulder weapon for American soldiers."

Unfortunately for Lewis, the US War Department didn't agree. The Colonel's old friend, Gen Leonard Wood, wrote to him privately early in 1918, "Isaac, they have many Browning guns (the BAR) and contracts for more Brownings are coming in. I don't think your design will sell to the Ordnance Board now, though it seems to be superior to the Browning."

That response fired the 60-year-old Lewis with an inventive challenge. He developed his "Third Model" assault rifle, features of which he kept secret from all but a few of his trusted assistants. Lewis did all plans and designs "in-house" personally and with those few close assistants.

By late August, he ran tests on his

LHK

## HECKLER & KOCH PARTS

WE STOCK 90% OF THE ENTIRE PARTS LINE  
IF IT'S IN PRODUCTION WE CAN GET IT. FROM  
A SINGLE SPRING TO DEALER/POLICE STOCK.  
SPECIAL IMPORTATIONS AVAILABLE.


MP5A3  
MP5K  
MP5PDW  
HK11/11/13  
PSG1  
91/93 SG1  
91/G3  
93/93/33  
MSG90/A1  
MSG90DMR  
HK23  
P7S  
USP'S  
HK300  
HK517  
HK516  
USC  
SL8-J  
G36  
UMP  
HK34  
SP69

"WE ARE THE HK PARTS SOURCE"

SPC/TACTICAL OPERATIONS GROUP  
1545 RT 37W SUITE 6 TOMS RIVER NJ 08755  
732/286-9868 FAX 732/286-9869

WWW.HKPARTSONLINE.COM AND AT HKPRO.COM

**747 IMPORTS<sup>™</sup>**  
**Full-Auto Airsoft BB Guns**



*MC-5A*  
*PDW*

**Actual Realism Meters**

The World's most popular assault rifles as fully functional, full scale replicas. MP-40's, AK-47's, M-16's, Steyr's, and many more models! 700 rounds per minute or 300-470 fps - Glow-in-the-dark BB's

For Technical Questions, Orders, or International Sales Call: 813-771-4200  
 For catalog send \$5 (refundable on first purchase) to:  
 747 Imports - 440 Barrett Pkwy, Suite 25, Knoxville, TN 37917

**Toll Free 1-888-304-3282 For Ordering Only.**  
 or visit us on the web at [www.747imports.com](http://www.747imports.com)

prototype rifle and issued a report for the Ordnance Board of the U.S. War Department. In part, it read:

This light shoulder gun is fully automatic or single shot. It fires as rapidly as any auto or as accurately as any single shot. It has a quick switch combat sight or a marksman's long-range sight...The cooling of the shock-operation piston is amazing, even in sustained automatic fire...

Tested the gun fires automatically about 400 rounds per minute and is very accurate even at that volume...It weighs just 12 pounds and is the same length as the standard service rifle (the '03 Springfield was about 43 inches long)...

This light automatic rifle has very little recoil...far less than my original Lewis gun...The balance is best for shoulder firing by the individual soldier...It is perfect for automatic firepower in the assault by every single soldier...I stake my name that this rifle is more accurate and stronger than the Browning gun.

The bombastic Lewis estimated that each rifle could be produced for less than \$25 each in quantities of 10,000 weapons per order. He urged the War Department to consider his "new age, new military era automatic rifle."

But, it was late in 1918, the war was over, peace had broken out and military budgets, especially for new weapons, were not in favor. Despite several successful field trials in which the new Third Model Lewis rifle matched or outperformed the BAR, the sale was never made and production orders never materialized.

Lewis noted, "When the war ended there was no pressure for new weapons or even to replace the old ones. The Browning system is in favor and in production. There is political pressure to cut the (War Department) budget. It is unlikely anyone will buy our new rifles."

Disjointed by Washington politics and the power of the established small arms cartel, Isaac Lewis retreated to his New Jersey home and semi-retirement. He only tinkered with firearms designs from that point on.

Isaac Lewis could afford to retire. At 65, he was wealthy from foreign sales of his Lewis machine guns and wise stock investments. Even though he'd returned to the US Treasury every cent of money from the sale of his guns to the American military, the money from sales to other


**John's Guns**

John Tibbetts  
 761 FM2134  
 Voss, TX 76888  
 Phone (915) 357-4546  
 Fax (915) 357-4648

**Pride in Excellence**

[www.johnsguns.com](http://www.johnsguns.com)  
 Email: [jetibbetts@aol.com](mailto:jetibbetts@aol.com)

*Manufacturer of Precision Suppressed Weapons*



**.308 Sniper Rifle**

**Model MK II Stainless**

**We Buy Machine Gun Collections!**  
*None too large or too small!*

**The Ultra Quiet Marlin 9mm Camp Carbine**

**Ruger 77/44 Bolt Action**

governments had made his fortune.

Meanwhile, in the United Kingdom, BSA and certain other Lewis-licensed interests, also tried to produce an infantry-useful Lewis assault rifle, beginning in 1917, ongoing through 1940, long after Col Lewis's death. With war looming, BSA introduced their model 1937 Lewis gun. This model used a Bren-type butt assembly and magazine. The clock-type Lewis mainspring was also replaced.

Another Lewis-licensed UK business, The Soley Armament Company, also experimented with converting the issue .303 aircraft observer's mark III Lewis into a modern infantry assault rifle. Soley's designers used the Bren style stock and box magazine, but retained the Lewis clock spring mechanism in the first model, then replacing it with a helical spring for the second prototype. None of these designs went beyond prototype stage.

By 1939, with the Bren gun already in service, and war both in the Pacific and Europe inevitable, most effort on developing basic Lewis gun conversions for infantry was ceased. The final attempt was the BSA model 1940, which had very limited manufacture in 1941.

Ironically, many of the original Lewis guns and the lighter, infantry-style conversions did see combat in World War II and beyond. Several were recovered by US troops in Vietnam. Victorious Sandinistas paraded into Managua in the summer of 1979. In NEWSWEEK, one

**DPMS**  
PANTHER  
ARMS  
SINCE 1986

KITTY-KAT PANTHER

PANTHER™ .308 LONG RANGE RIFLE LR-308

**NOW AVAILABLE FOR ORDER!**

Please visit [www.dpmsinc.com](http://www.dpmsinc.com) for our new catalog

A-22 PANTHER™ .22 LR  
Scope not included.

13983 Industry Avenue • Becker, MN 55308  
PHONE 1-763-261-5000 • FAX 1-763-261-5399  
[www.dpmsinc.com](http://www.dpmsinc.com) • e-mail: [dpmsinc@aol.com](mailto:dpmsinc@aol.com)  
ONLINE ORDERING NOW AVAILABLE!  
AR RIFLES • PARTS • ACCESSORIES

PANTHER™ M-9

"MANGONEL" FLIP-UP REAR SIGHT (DETACHABLE)  
Retail \$99.95

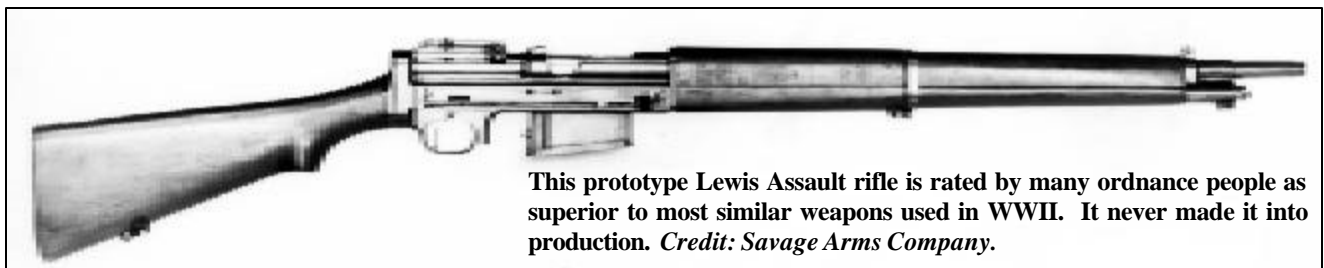
*We pledge allegiance to our troops!*

large, color photo shows a rebel soldier armed with an original old Lewis Gun. Later and in a currently newsworthy corner of the world, a converted Lewis Gun "Lite" was photographed in use by rebel militia firing at a Soviet helicopter in Afghanistan in the '80s.

Shortly before his death of a heart attack in 1929, Isaac Lewis had told a friend, "One of man's immortal claims is the pride of his name. No one can take that pride away from me, my family or my guns."



**Above:** Lewis's second assault rifle modification of his famed original machine gun was a 14-pound weapon using a BAR style magazine. The inventor was still not satisfied and worked to design an even lighter and more effective military weapon. *Credit: Savage Arms Company.*



This prototype Lewis Assault rifle is rated by many ordnance people as superior to most similar weapons used in WWII. It never made it into production. *Credit: Savage Arms Company.*