

The Portuguese Mauser
By Pedro Mateus

THE PORTUGUESE MAUSER

**From Military History To Modern
Sport Competition**

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Federação Portuguesa
de Tiro



**The Vergueiro along with
precision targets for 100 meters
with FNM 8x57mm ammo.**



8x57mm IS
ammunition "made in
Portugal" by FNM –
198 grains, FMJ

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Based on the Mauser Gewehr 1898, the Vergueiro (also known informally in collector circles as the Portuguese Mauser) is a bolt-action rifle designed between 1898 and 1903 by Portuguese army officer Captain Alberto José Vergueiro. The rifle was originally chambered for 6.5x58mm cartridge with a five-round internal magazine and with the formal military designation of 'Espingarda 6.5 mm m/904'.

The Vergueiro rifle was selected as the upgrade and large scale replacement for the former Portuguese army standard issue rifle – the 1886 / 91 Kropatschek, a bolt-action 8 mm Austrian rifle. The selection process started in 1898 with specialized evaluation commission that short-listed the Italian Passavicino-Carcano, the Norwegian Krag-Jørgensen, the French Daudeteau, the Austrian Steyr Mannlicher-Schönauer and the German Mauser. The final contenders were the Austrian and the German rifles. The German Mauser was ultimately selected but with Captain Vergueiro's re-designed bolt-action. The German Mauser platform was chosen following positive feedback from the Anglo-Boer War, plus its superior magazine design and overall production cost evaluation.

The royal crest of King D. Carlos I

A very distinctive and prestigious marking on this particular rifle is the engraving on the top of the chamber, of the royal crest from the Portuguese (penultimate) King, D. Carlos I (September, 28th 1863 – February 1st, 1908) – the King's crown on top of a large 'C' monogram, vertically crossed by an 'I'. Furthermore and coincidentally, King D. Carlos I was an important sponsor and decision-maker for opening competitive shooting to the Portuguese civilian community in the late XIX century – therefore his engraving on this rifle, now more than 100 years old, is a shooter-collector's delight!

Vergueiro and the bolt design

José Vergueiro was born in the village of Gebelim, Alfandega da Fé, Bragança, approximately 500 km north-east of Lisbon, on December 8th 1851. He followed a military career within the Portuguese Army reaching the rank of Lieutenant-Colonel. He was the sub-director of the Practical School for Infantry and Cavalry in Mafra, and the director of the Pedrouços Shooting Range and died at the age of 56, on July 5th 1908 in Pedrouços, Lisboa.

Vergueiro designed and developed a new bolt-action, inspired by the Austrian Mannlicher design and easily distinguishable from the Mauser due to its straight bolt-handle. The bolt operates as a 'slide and rotate' motion with a three-point lock system, using less parts than the original Mauser model (7 versus 10).

Production of the Vergueiro rifles was undertaken by the prestigious DWM - Deutsche Waffen und Munitionsfabriken in Berlin (German Weapons and Ammunition Factory) – under an initial order, signed on December, 21st 1903, by the Portuguese War



Vergueiro's left side view

Minister, General Luis Augusto Pimentel Pinto, for a total of 100,000 units (one of the largest Army contracts ever and more than double the quantity of the previous Kropatschek rifles bought in the 1880s). As planned within the contract, delivery started in 1905 and continued up until late 1907.

Conversion to new standards

In 1937, just prior to World War II, Portugal adopted the 7.92x57mm Mauser (also known as 8 mm Mauser) as the standard issue military rifle and decided to convert the existing Vergueiros from 6.5x58mm to the new caliber – the converted model would receive the formal military model designation of 'Espingarda 8 mm m/904/939'.

In 1939, the Portuguese Factory at Braço de Prata (FBP) started the conversion process of the Vergueiro rifles to the new caliber – including shortening both barrel and stock. The resulting converted units of around 40,000 would remain in service as late as 1960 – especially at the Portuguese African and Asian colonies.

The Bugalho 1912 semi-automatic action – ahead of its time?

In 1912, a couple of years before World War I, the director of the Lisboa Shooting Range, Captain Vicente Bugalho, developed a semi-automatic action

to be used with the Vergueiro rifle and had an article published in Revista de Infantaria (Infantry Magazine) describing and promoting it. However, it never made it into production despite support from the Ministry of War, Lieutenant-Colonel Alberto Carlos da Silveira who, in 1912, ordered an initial modification of the Vergueiro rifle at the Portuguese factories, to receive the semi-auto action. This modification never happened – according to A. José Telo and M. Álvares in their 2004 book Armamento do Exército Português, Vol I. Armamento Ligeiro (ISBN 972-8816-43-X) due possibly to production difficulties, lack of funding or a conservative resistance within the army 'old school' officers to the use of a semi-automatic rifle.

Ammunition

The 8x57mm IS (7.92mm Mauser) ammunition was made in Portugal by FNM (Fábrica Nacional de Munições or National Ammunition Factory) full metal jacket (FMJ) 198 grains, with a manufacturer's declared velocity (at 15 meters) of 735 m/sec (approximately 2411 fps) and is an accurate performer, not only for this specific rifle but with all the Mauser 98 range of rifles. However, FNM ceased trading ten years ago.

Established in 1947, with the formal designation of 'Fábrica Nacional de Munições de Armas Ligeiras'



Vergueiro's right side view

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(literally 'National Light Weapons Ammunitions Factory'), it stopped accepting orders and had its operations closed by the Government in 2001 – despite worldwide recognition and demand for their quality product – not only for this cartridge but also for the 9x19mm Parabellum, 7.7x56 mm R, 7.62x51 mm



Detail of the King D. Carlos I crest engraved on the top of the chamber

[NATO] and 7.62x39 mm

While remaining stocks last, this is the recommended ammunition for the Vergueiro rifle. When these stocks are fully depleted the best option will be re-loading.

Military Rifle and a collectable item

The Vergueiro was the standard rifle used by the Portuguese Army on the World War I African operations in Angola and Mozambique (while the British Lee-Enfield was the rifle used in Europe). It was also exported, for military use, to South Africa and Brazil. It remained in service as late as 1960, when a Portuguese re-enforcement company was dispatched to East Timor with the 'good old trusty' m/904 - when the standard rifle was the German Heckler & Koch automatic/semi-auto G3.

The Vergueiro is currently a much sought after collectable rifle – not only among Portuguese vintage weapons shooters and collectors but also worldwide among numerous Mauser rifle fans. Most of the currently owned models are the 1939 modified version for 8x57mm but there are also some rare

originals, not converted, in 6.5x58mm still available and in serviceable condition (and some close to mint condition!).

Competition – 'Armas de Ordenança'

The Portuguese Shooting Federation has a long tradition of promoting competitive shooting with vintage (pre-1960) standard issue military pistols and rifles (in Portuguese - 'Armas de Ordenança') with regional and national shoots held regularly along with seasonal club matches.

As of 2011, Portuguese regulations and match calendar, the Vergueiro rifle (along with other Portuguese standard issue military rifles such as the German Mauser Gewehr 1898 / 98k 8x57mm and



Top view of chamber and bolt (closed)

the British Lee-Enfield .303) has two disciplines in which to compete – the 300 metre prone (40 shots) and the 100 metre prone (20 shots) – this latter one a 'combined' match, where the competitor will also shoot pistol (at 25 metres) with the classic Portuguese standard-issue German-made Luger P-08 9x19mm Parabellum.



Perspective on the 20 position marked scale for the elevation adjustable sight

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The rectangular profile front sight

On the 100 metre discipline, the target used is the ISSF precision for 50 metre rifle (the 10 ring being 50mm diameter). On the 300 metre discipline, the target used is the ISSF Precision for 300 metre rifle (the 10 ring being 100mm in diameter).

Handling and Shooting

The Vergueiro is an accurate, reliable and very easy to handle rifle with a moderate to high recoil. Since the original steel butt-plate was designed for military endurance and, as a last resort, a close combat weapon and not for ergonomics and shooter-comfort. The use of a slip-on rubber recoil-pad, as allowed by the Portuguese Shooting Federation regulations, is strongly recommended.

The original steel butt-plate, combined with a relatively light rifle such as this one, is very punishing in the prone position. When shooting standing or kneeling, the shooter can effectively dissipate the recoil throughout his body but not when prone, where the shock goes to a more confined body area, with the butt plate only partially supported. A slip-on rubber pad will work wonders and ensure that the competitive shooter can focus on the sights rather than anticipating (and flinching) recoil.

The trigger is, as expected from a military rifle, a double-stage with a pull on the heavy side – around 4.1 Kgs or approximately 9 pounds. Nevertheless, I found it to be very precise (successive tests, with a digital Lyman trigger-pull weight gauge, showed little or no variation) and with no significant creep or other anomaly on the shooting cycle. Yes, it's a heavy trigger but I feel that it is very compatible with the precision shooting disciplines where the Vergueiro can be used. With a well-balanced first stage and a not too heavy second stage, it is more than adequate for its original military intentions or even as a big game hunting platform.

The Vergueiro as an excellent set of sights (considered by many shooters as far superior to the ones on the standard Mauser 98) with a blade front sight protected by a pair of substantial 'ears' and a finger-adjustable 'slide, click and lock' elevation back sight with a 20 position marked scale. The 20 positions will allow for really long distance adjustment, as when shooting the 8x57mm FNM 198gr. cartridge, positions 4 and 5 are enough to cope with the 100 and 300 metre ISSF targets using the classic 6 o'clock hold. The overall sight profile and acquisition are quick and precise and very ergonomic – real top accuracy stuff.



The steel butt plate on the Vergueiro original wood stock

There's a safety on the back section of the bolt - when switched to the right it's safe and the striker is locked, when switched to the left, safety is unlocked and the rifle is ready to fire. The internal magazine can be extracted by the use of a button-release inside the trigger guard (releasing the bottom latch and emptying the contents).



Trigger and bolt (closed)

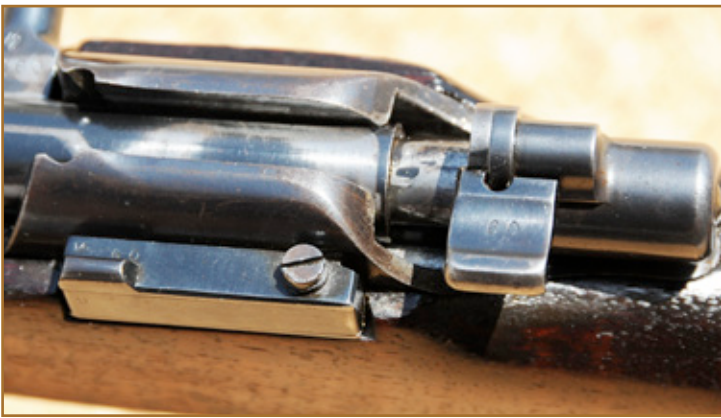
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The magazine "box" bottom view



The bolt safety trigger (on the back)



Detail on the occluded firing pin section on the bolt



*"Espingarda Portuguesa 6,5 mod. 1904"
"Deutsche Waffen - und Munitionsfabriken . Berlin".*



Front muzzle crown and front sight protection "ears"



Top view of chamber and bolt (closed)



The bolt action

Specification Tables for the Vergueiro 1904 and 1939 versions

1904 m/904 6,5 mm		1939 m/904/939 7,92mm	
Caliber	6,5 mm	Caliber	7,92 mm
Rifling	4, <u>Dextrorsum</u>	Rifling	4, <u>Dextrorsum</u>
Overall Length	122,5 cm 48,22 inches	Overall Length	110 cm 43,30 inches
Barrel Length	73,5 cm 28,93 inches	Barrel Length	61,3 cm 24,13 inches
Sights	Rectangular section front sight; Back sight finger adjustable for elevation, with a 1-20 marked scale.	Sights	Rectangular section front sight; Back sight finger adjustable for elevation, with a 1-20 marked scale.
Maximum range	4.500 m 4.921 yards	Maximum range	4.500 m 4.291 yards
Effective range	1.500 m 1.640 yards	Effective range	1.500 m 1.640 yards
Weight	3,920 Kg 8,642 Pounds	Weight	3,770 Kg 8,311 Pounds
Magazine	5, fixed, internal Stripper clip	Magazine	5, fixed, internal Stripper clip
Bayonet	28,2 cm with 332 grams; removable 11,1 inches, 11.7 oz	Bayonet	28,2 cm with 332 grams; removable 11,1 inches, 11.7 oz
Ammunition	<u>Centerfire</u> 6,5x58 mm	Ammunition	<u>Centerfire</u> 8x57mm IS 7,92mm <u>Mauser</u>
Safety	Hammer /percussion lock	Safety	Hammer /percussion lock
Action	Repeating Bolt-action	Action	Repeating Bolt-action
Stock and Sling	Wood, with steel butt plate, leather sling with brass adjustable buckle	Stock and Sling	Wood, with steel butt plate, leather sling with brass adjustable buckle
Manufactured	Germany; Bolt design by Portugal	Manufactured	Germany; Bolt design by Portugal; Modified in Portugal (FBP)

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Detail on the trigger block after field stripping the action and barrel from the stock – the generous amount of conservation paste demonstrate the original state as this Vergueiro was received (oriented towards long time storage conservation)



A training group of 3 consecutive shoots (approx. 12 cm / 4,7 inches apart) at 100 meters, shooting standing



The ISSF 300 meter precision target at the shooting range

It all adds up to a great piece of collectable and shootable 100 year old rifle with plenty of inspiring history and still competitive in today's precision disciplines.

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Detail of the bottom case engravings on the FNM 8x57mm – "TARGET" can be read



Close up, tree-quarters views, on the ISSF 300 meter precision target



The 300 meter after a few training shoots

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**Poster for a Portuguese Shooting
Federation Competition –
September 2011** *(also shown is
a Luger P-08 pistol in 9x19mm
Parabellum)*

