

# **Fabrique Nationale Fusil Semi-Automatique D'Infanterie (FSAI, SAFN, AFN, or FN 49)**

## **A Presentation to American Society of Arms Collectors**

By James W. Alley, Jr. (Part I) and John A. DeBin (Part II)



James Alley and John DeBin joined together to tell us the history of the Belgium based Fabrique Nationale d'Arms de Guerre (the National Factory of Weapons of War) and the Fabrique Nationale Model 49 military rifle. They shared with us the early history of the manufacturer and the characteristics of the prototypes and those of the numerous contracts garnered for several countries. They covered all aspects of this quality high powered semi-automatic rifle. The two presentations follow: (Editor)



James Alley



John DeBin

## PART I

Arms manufacturers the world over have explored new designs to provide the world's military forces with new, improved weapons. The Belgium-based Fabrique Nationale d'Arms de Guerre (National Factory of Weapons of War) (Figure 1) most commonly known as FN, is no exception. FN. started in 1889 as a conglomerate of arms makers in and around Liege, Belgium, who joined together to build an arms factory to produce the Mauser designed Model 1889 rifle for the Belgium Government.<sup>1</sup>

Like many of the other major European arms makers, FN. experimented with semi-automatic rifle designs in the early twentieth century. By 1914 FN. had significantly advanced to offering the Fusil Automatique d'Infanterie 1914 (Infantry Automatic rifle 1914) (Figure 2), but the European countries were in no position at the beginning of World War I, to test, let alone adopt a new fangled rifle. Obviously, the rifle was not a successful venture for FN. With the intervention of World War I and the German Armies' occupation of Liege, FN. had no alternative but to postpone their semi-automatic rifle development until after the war and that did not occur until the late 1920s to the early 1930s.<sup>2</sup>

Dieudonne Saive (Figure 3), designer of the Fusil Semi-Automatique d'Infanterie (FSAD), after studying mechanics and manufacturing in Liege, joined Fabrique Nationale in



Figure 1. Fabrique Nationale d'Arms de Guerre, 1891, FN Archive.

Returning to FN. in 1919, Saive worked in various capacities until 1924 when he was named Chief of Fabrications of Arms. Working closely with John M. Browning, Saive was able to finish many of the designs that remained after Browning's death in 1926.<sup>4</sup>

The Yugoslavian Government contracted with FN. to build an arsenal at Kragujevac, Serbia, to manufacture FN.

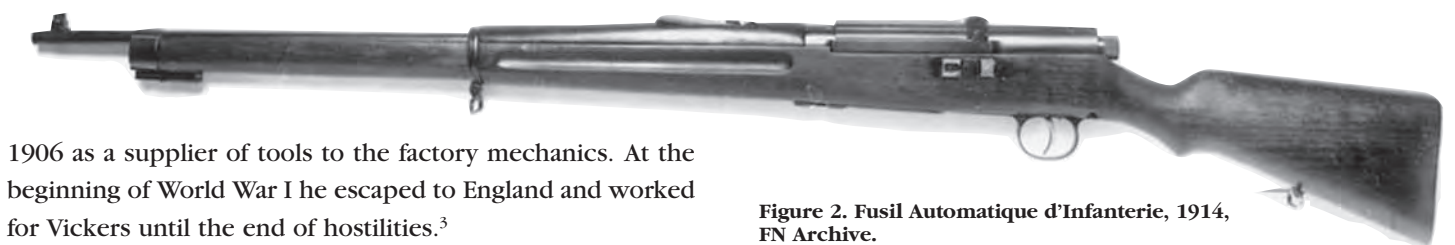


Figure 2. Fusil Automatique d'Infanterie, 1914, FN Archive.

1906 as a supplier of tools to the factory mechanics. At the beginning of World War I he escaped to England and worked for Vickers until the end of hostilities.<sup>3</sup>



Figure 3. Dieudonne Saive, circa 1915, FN Archive.

type arms. Saive was sent to the arsenal in 1928 on behalf of FN. to facilitate production setup.<sup>5</sup>

In 1929 Saive returned to be named as the Deputy Chief of Service in charge of the Browning Automatic Rifle (BAR) production, a new product line for FN. He was promoted to Chief of Service of the War Weapons Division in 1930, then left manufacturing to concentrate on the study and design of weapons in 1932. During the period from 1926 to 1940 his initial design and development of semi-automatic rifles was completed. He used the short recoil system to operate the first three prototype rifles (Figures 4-6) but changed to the gas bleed off system to oper-

ate his fourth prototype (Figures 7-9) which eventually became the Fusil Semi-Automatique d'Infanterie (FN 49).<sup>6</sup>

The Wehrmacht invasion of Liege in May of 1940 caused FN. to cease operations, as the management, engineers and personnel refused to work for the Germans. Saive ensured his designs and drawings did not fall into the Nazi's hands. In the summer of 1941 Saive with rifle plans in hand, along with a small group of FN.'s management and engineers left Belgium clandestinely via France, Spain and Portugal, arriving in England by September. In England, Saive worked for the Small Arms Design Department, Ministry of Supply, designing feed systems for 20 mm weapons and mounts while continuing the development of Fusil Semi-Automatique d'Infanterie (FSAD). Assisted by British personnel, Saive finalized plans for the initial British version of the rifle (Figure 10). This was when the British Government began to bear the development costs for the rifle that eventually became Fabrique Nationale's SAFN (FN 49) rifle. In

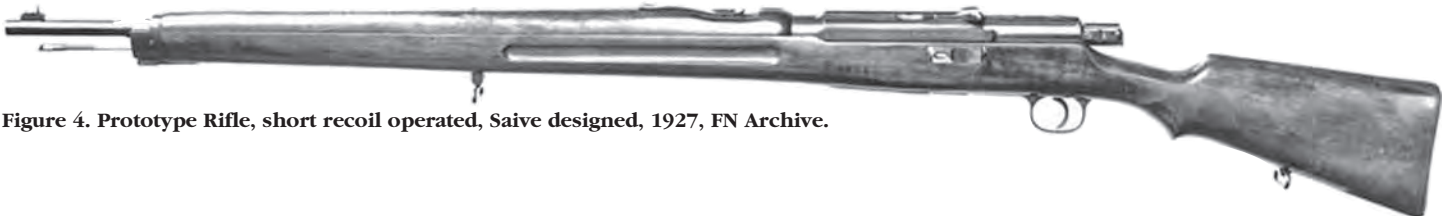


Figure 4. Prototype Rifle, short recoil operated, Saive designed, 1927, FN Archive.

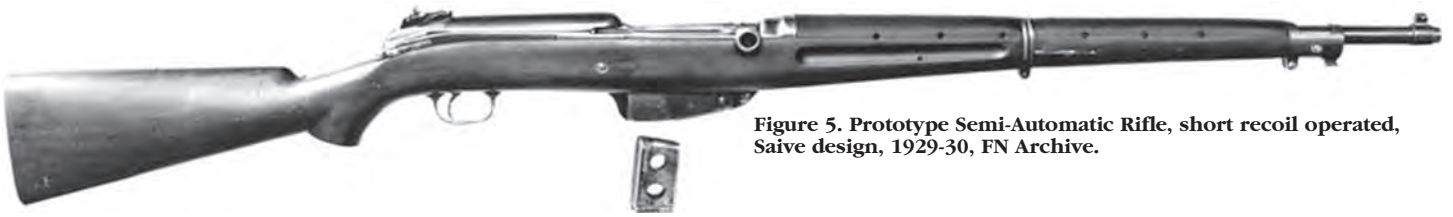


Figure 5. Prototype Semi-Automatic Rifle, short recoil operated, Saive design, 1929-30, FN Archive.

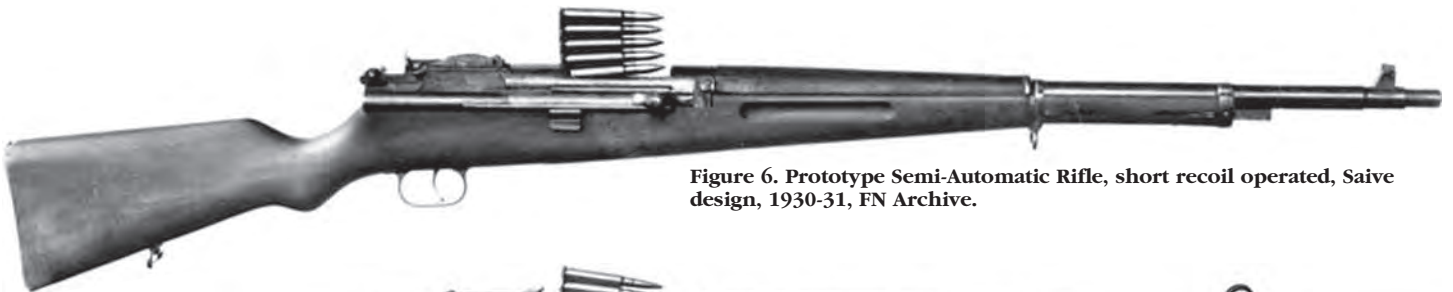


Figure 6. Prototype Semi-Automatic Rifle, short recoil operated, Saive design, 1930-31, FN Archive.

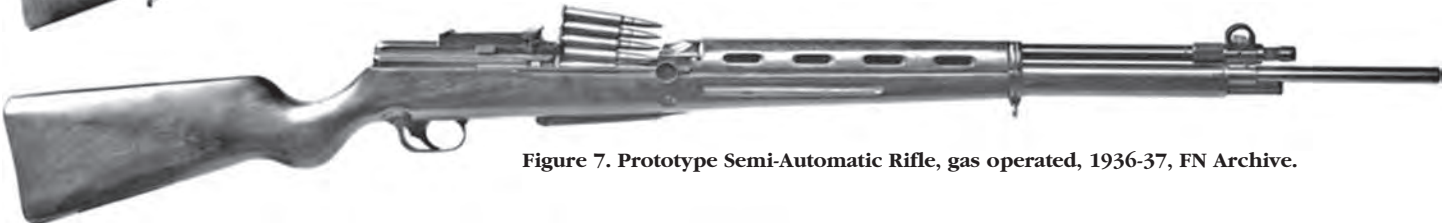


Figure 7. Prototype Semi-Automatic Rifle, gas operated, 1936-37, FN Archive.



Figure 8. Prototype Semi-Automatic Rifle, gas operated, 1936-37, FN Archive.

Figure 9. Prototype Semi-Automatic Rifle, gas operated, 1936-37, FN Archive.

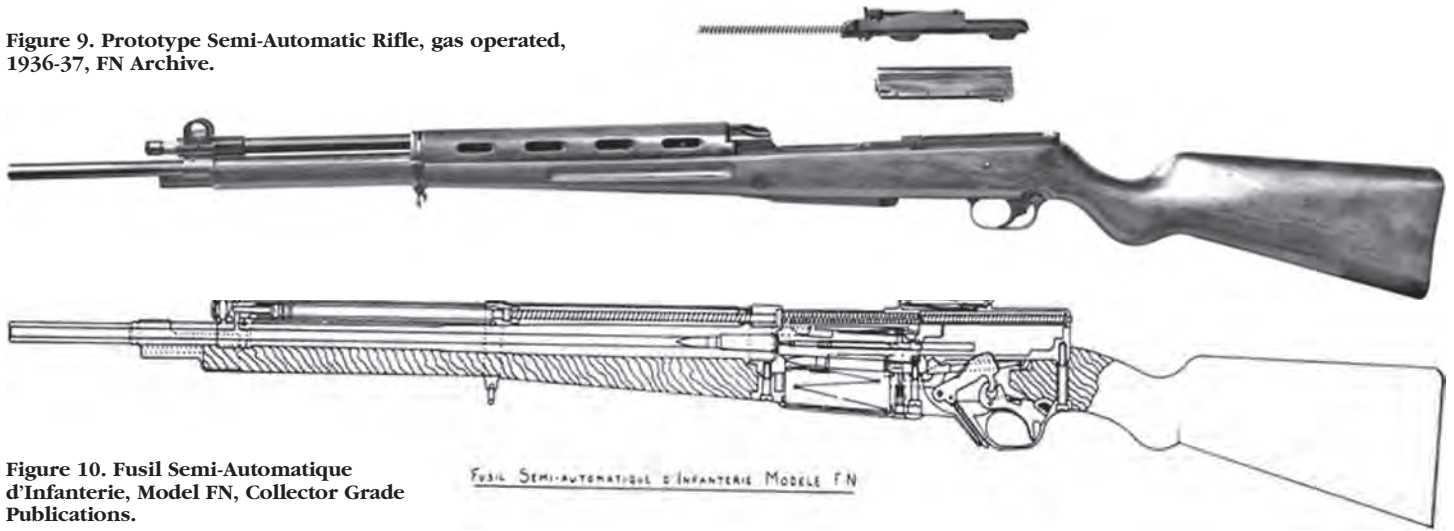


Figure 10. Fusil Semi-Automatique d'Infanterie, Model FN, Collector Grade Publications.

December 1943 Saive was sent to Canada to assist the John Inglis Company in the production start up of the FN. High Power Pistol.<sup>7</sup> Fabrique Nationale was liberated by the Allies in September 1944, but was in shambles (Figure 11). Eight months after Saive came back to England, the F.N. Management and Engineers returned in October 1944 to the Belgium factory.<sup>8</sup>

An initial order was placed in 1941 for 10,000 semi-automatic rifles to be manufactured in England. The initial Saive/British designed rifle was to be made in hopes that the stodgy British Infantry hierarchy, whose troops were currently armed with bolt action rifles, would see the advantage of semi-automatic rifle fire. The production of this rifle was to be completed by the start of 1944 with testing accomplished that spring.<sup>9</sup>

Major J.E.M. Hall from the British Small Arms Design Establishment, who observed the Saive/British designed rifle being tested, was of the opinion that the rifle was too long and clumsy. As a result, it was decided they would make new, improved drawings and fifty experimental rifles, now called the EXP 1 (Figure 12), would be manufactured and tested by late summer/early fall of 1945.<sup>10</sup>

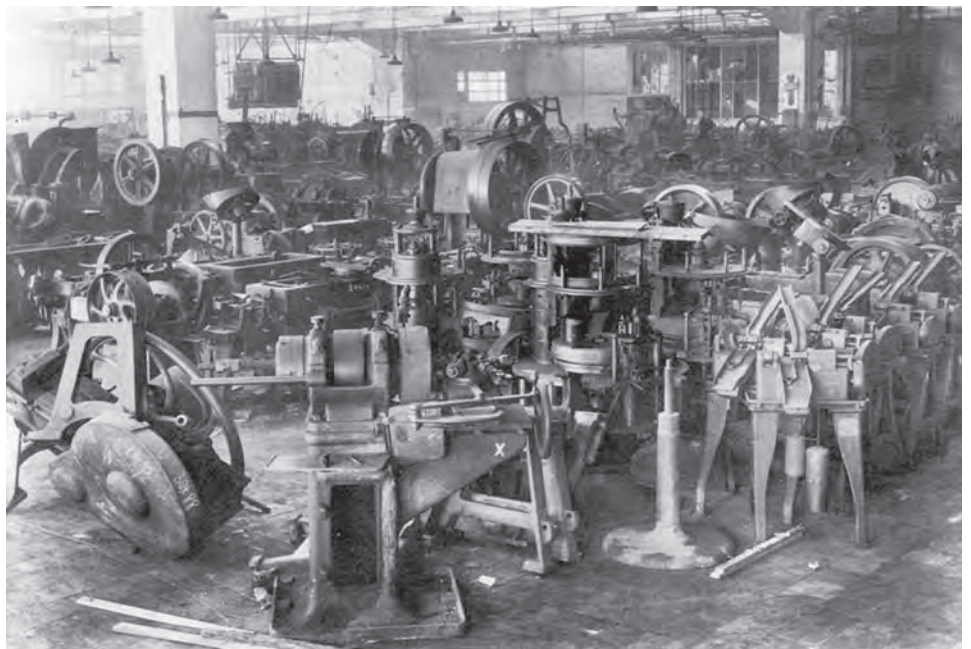


Figure 11. Fabrique Nationale, 1944, FN Archive.

With the war's end in 1945, the British 10,000 rifle order was reduced to 2,000, still with the hopes that troop trials would convince the Infantry of the advantages of a semi-automatic rifle.<sup>11</sup>

The British, still not satisfied with the EXP 1 rifles, requested F.N. to make two experimental rifles, designated "A" and "B" (Figures 13 and 14) that were similar to the EXP 1 rifles but with additional modifications, to determine why



Figure 12. EXP 1, Self-Loading Experimental Model, Author's Collection.



Figure 13. FN "A" Model, gas operated prototype rifle, Spring, 1946, FN Archive.

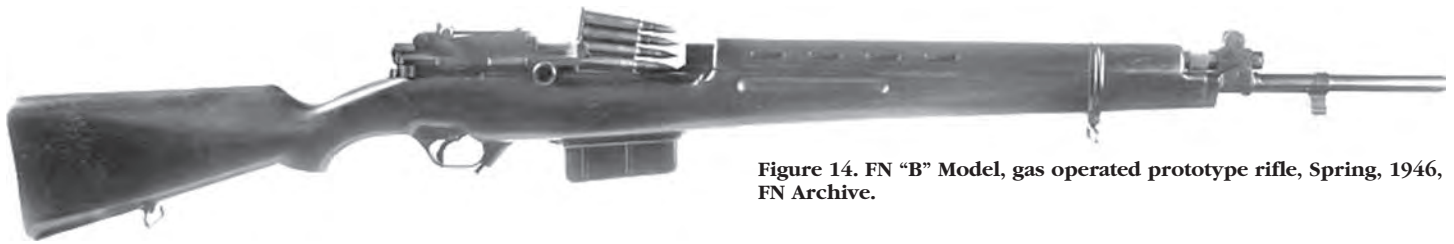


Figure 14. FN "B" Model, gas operated prototype rifle, Spring, 1946, FN Archive.

the EXP 1 rifles were not functioning as expected. The FN test revealed that the function of the rifles was very violent in the extraction of the British 7.92 mm cartridge. The two FN Experimental rifles were then delivered to the British with five barrels of different chamber designs.<sup>12</sup>

Trials of the experimental rifles were ordered to be held at Woolwich, England, from September 24 to October 3, 1946. It was also determined in the same time frame that only a limited number of rifles would be needed to "sell" the semi-automatic concept to the Infantry.<sup>13</sup>

Several additional modified experimental rifles designated "C" and "D" were manufactured by F.N. for the British in mid-fall of 1946, but these did not add significantly to the rifle's design or operation. They only looked more like what was to become the SAFN (FN 49). The "C" Model rifle (Figure 15) ultimately became the EX 2 and the "D" Model rifle (Figure 16) became the FN 49. These were the last of F.N. Fusil Semi-Automatique d'Infanterie (FSAI) experimental type rifles manufactured for the British.<sup>14</sup>

Talks among the United States, United Kingdom and Canada began in the fall of 1946 to standardize a rifle and ammunition that all three could adopt.<sup>15</sup> The ammunition was finally standardized, but the rifle was not. This doomed the Experimental rifles as neither the 7.92 mm cartridge nor the rifle was desired by the British.

In February 1947, the contract for the self-loading rifle was withdrawn.<sup>16</sup> A pamphlet, "Notes on the Rifle, 7.92 mm Self Loading" (Figure 17) was issued in July 1947, even though the Rifle Self-Loading Experimental Model EX2 (Figure 18) project was terminated in July 1947.<sup>17</sup>

Fabrique Nationale, having designed and developed a semi-automatic rifle, but without having an immediate contract for it, had Saive bring the Fusil Semi-Automatique d'Infanterie to a finished state so it could be mass produced and offered to the world's market. The rifle's designation was still Fusil Semi-Automatique d'Infanterie (FSAD), but it was called later the SAFN (Semi-Automatic Fabrique Nationale), or colloquially the FN 49.



Figure 15. FN "C" Model, gas operated prototype rifle, Mid-Fall, 1946, Imperial War Museum photo.



Figure 16. FN "D" Model, gas operated prototype rifle, Mid-Fall, 1946, Imperial War Museum photo.

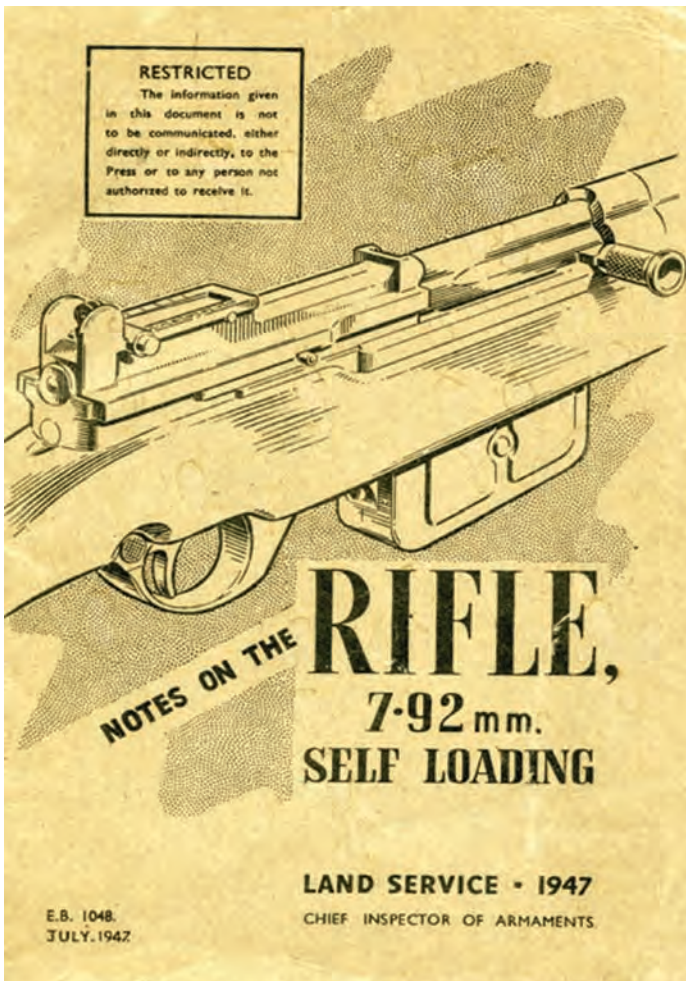


Figure 17. "Notes on the Rifle 7.92 mm Self-Loading Rifle" pamphlet, Author's Collection.

Dueidonne Saive continued with FN from 1944 as the Head of Design and Development until his retirement in 1954. A career spanning 48 years during which he designed and/or developed over 27 different firearms and modifications. The best known the world over was the FAL—Fusil Automatique Leger (Light Automatic Rifle).<sup>18</sup>

The SAFN (FN 49), Fabrique Nationale's new rifle (Figure 19), was sold to a few governments around the world. The production of the FN 49 from its start in 1949 to its end in 1970, is estimated at just over 176,000 rifles.<sup>19</sup> The number of variations that may be encountered today is a result of each country's government ordering the configuration they believed best suited their Armed Forces' needs.

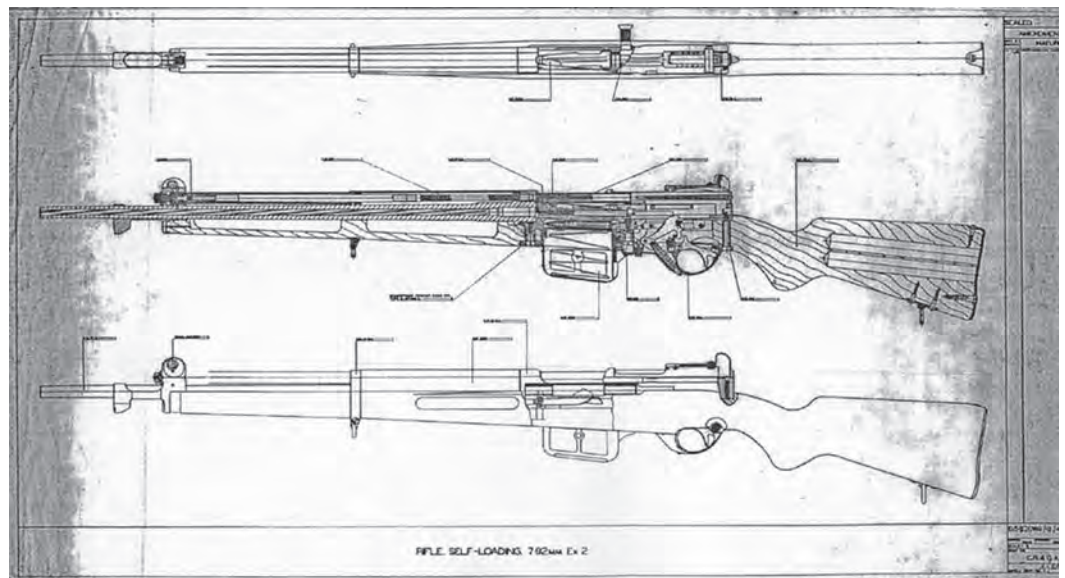


Figure 18. Rifle Self-Loading 7.92 mm EX 2, Collector Grade Publications.

1. Auguste Francotte and Claude Gaier, *FN 100 Years, The Story of a Great Liege Company 1889-1989* (Brussels, Belgium: Didier Hatier, 1989), p. 31.

2. "Noel-Nouvel AN" in *FN Review No. 16*" (Herstal, Belgium: Fabrique Nationale d'Armes de Guerre de Herstal, December, 1954), pp. 13-15.

3. Ibid.

4. Ibid.

5. Ibid.

6. Ibid.

7. Ibid.

8. Ibid.

9. Ibid.

10. Ibid.

11. "Noel-Nouvel AN" in *FN Review No. 16*" (Herstal, Belgium: Fabrique Nationale d'Armes de Guerre de Herstal, December, 1954).

12. Major J. E. M. Hall and Edward Ezell, British Developments 1942-1965 correspondence, December 22, 1965.

13. Ibid.

14. Ibid.

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16. Ibid.

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19. Compilation of Production Quantities by Year (Herstal, Belgium: Fabrique Nationale d'Armes de Guerre de Herstal, 1970's).



Figure 19. SAFN (FN 49), FN Archive.

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## PART II

# The Fabrique Nationale Model 49 Rifle: Contract and Production History

### INTRODUCTION

The Fabrique Nationale Model 49 (FN-49) was an outstanding military rifle designed in an era when high-power, semi-automatic rifles were considered state of the art by military powers around the world. Unfortunately, due to WWII, its development and production were delayed and when it was introduced in the post-war era, it was already becoming obsolete. As a result, production numbers of this rifle never reached significant levels. It was used by several countries merely as a stop-gap weapon until more advanced designs became available. In many respects the FN Model 49 represents the epitome of the traditional, high-power, semi-automatic military rifle design and therefore, is worthy of study.

was adjustable for a particular cartridge and could readily be inactivated to allow the rifle to be used in single fire mode for launching grenades.

The FN-49 was manufactured in four different calibers to meet the specific requirements of each country: 7 mm Mauser, 7.65 mm Argentine Mauser, 7.9 mm Mauser, and the United States .30 cal. Model 1906 (.03-'06). The FN-49 was originally manufactured with a 10-round magazine designed to be removable, but only when the rifle was to be serviced. All FN-49s had a three-quarters length walnut stock with a semi-pistol grip and a two-piece walnut hand guard. A rear sling swivel was secured to the bottom of the buttstock and a front swivel was incorporated as part of the barrel band. The top of the receiver (the receiver cover) was easily



Figure 1. Venezuelan Contract rifle, a typical FN-49.

### PRODUCTION

Mass production of the FN-49 began in 1949 and continued until 1956, with small numbers of rifles assembled from existing parts as late as 1970. All production took place at the Fabrique Nationale facility in Herstal, Belgium. No guns were ever produced elsewhere under license, although it is likely that some components were produced by subcontractors. All production of the FN-49 was for military or police use, with the exception of a handful of rifles for commercial distribution. Although the FN-49 was evaluated by several countries, the only major production contracts went to Venezuela, Egypt, Belgium, Luxembourg, Indonesia, Belgian Congo, Colombia, Argentina and Brazil.

removed to gain access to the bolt and bolt carrier, thus facilitating routine maintenance (Figure 2). The rear sight, mounted on the receiver cover, was an aperture on a leaf graduated from 100 to 1000 meters, in increments of 100. All external surfaces of the FN-49 were given a durable yet serviceable black paint finish. The rifle's full serial number was invariably applied to four parts: receiver, barrel, bolt and bolt carrier. Depending on the contract, the stock was also numbered on the right side below the rear sight. Individual contracts are easily identified by the unique

### DESCRIPTION OF THE FN-49 RIFLE

The FN-49 (Figure 1) alone was a gas operated rifle produced in semiautomatic and selective fire versions. The gas system was composed of a cylinder, which bled gas near the muzzle, and a piston, which actuated a bolt carrier by direct impingement. The bolt carrier functioned to pull the bolt into and out of battery, and was equipped with a handle to allow for the manual charging of the action. The gas system



Figure 2. Receiver cover and rear sight of a Venezuelan Contract FN-49. Note the early style receiver cover lock at the rear of the receiver.





Figure 3. Corrugated steel buttplate in-the-white as used on Venezuelan, Columbian and Indonesian FN-49s. Note the Venezuelan Army cartouche on the buttstock of this Venezuelan Contract rifle.

insignia, usually a coat-of-arms, stamped on top of the receiver ring just behind the hand guard.

Three different types of buttplates were used on the FN-49. A corrugated steel buttplate without a trap door (Figure 3), a cupped steel buttplate with a trap door for a cleaning kit (Figure 4) and a brass buttplate with a trap door which was nearly identical to that used on WW II vintage Lee-Enfield rifles. The barrel was 23 inches in length and was threaded at the muzzle end to secure either a flash suppressor or one of two types of muzzle caps (Figures 5-7). A dovetail shaped slot was sometimes milled into the left side of the receiver. Although this slot appears to have been designed to accept a scope base, most users of the FN-49 are not known to have mounted telescopic sights on their rifles. This slot seems to be randomly present in some contracts and absent in others. Two different types of slots will be encountered: a full length slot (Figure 9) and a segmented slot (Figure 8) in which the middle of the slot was not milled.



Figure 4. Cupped steel buttplate with trap door typical of Belgian, Luxembourg, Belgian Congo, Argentine and Brazilian Contract rifles.



Figure 5. The collar-style muzzle cap used on all FN-49 contracts except Venezuelan and Egyptian. Note: the muzzle cap does not extend all the way to the muzzle; and the bayonet mount and gas regulator.

There were a number of parts which underwent design changes during production. For example, the receiver cover lock was redesigned to correct problems encountered due to metal fatigue (Figures 10-11). After problems were encountered with stocks cracking at the wrist due to recoil, a cross bolt was added to the stock in order to disperse some of the force of recoil (Figure 9). In order to facilitate manufacture, knurling was eliminated from the carrier handle late in production. A number of other changes occurred but will not be discussed here.

#### PRODUCTION NUMBERS FOR THE FN-49

In the remainder of this discussion, production figures for the various contracts are given. These figures are based on the serial number ranges of observed rifles and published accounts of production orders. In most cases these numbers are consistent, however, in some instances these numbers



Figure 6. The flash suppressor used on the Venezuelan Contract rifles and Egyptian sniper rifles.



Figure 7. The full length muzzle cap used exclusively on the Egyptian rifles.

diverge. Production orders can be modified and even cancelled after the fact, and thus the number of rifles ordered does not necessarily equal the number of rifles manufactured, hence a reason for divergence moreover, Fabrique Nationale and the various governments which purchased the FN-49 have been consistently reluctant to divulge production numbers. This makes precise estimates of the number of rifles produced difficult for several of the contracts. However the production numbers given in the text are the current best available estimates, and they are certainly accurate enough to allow for the size of the various contracts to be ranked with confidence.

#### THE VENEZUELAN CONTRACT

Venezuela was the first country to take delivery of a sizeable quantity of FN-49 rifles. Four thousand rifles were ordered in early 1949 and another 4,000 in 1950, for a total of 8,000 rifles. All Venezuelan contract rifles were semiautomatic and all chambered the 7 mm Mauser cartridge.

In addition to the Venezuelan coat-of-arms on the receiver ring (Figure 12), features unique to this rifle were a



Figure 8. The segmented dovetail slot on the left receiver of a Venezuelan Contract rifle. Note the lower half of the slot is obscured by the stock.



Figure 9. The full-length dovetail slot (lower half obscured by the stock). Note the recoil bolt on this late production Luxembourg FN-49.



Figure 10. Early style receiver cover lock.



Figure 11. The improved receiver cover lock.



Figure 12. Venezuelan Contract receiver ring crest.

flash suppressor (also seen on Egyptian Sniper rifles) and on the second group of four thousand rifles, a Venezuelan Army cartouche stamped onto the right buttstock (Figure 3). Additionally, all Venezuelan contract rifles were equipped with a knurled carrier handle, a corrugated steel buttplate in-the-white without a trap-door, a segmented dovetail slot on the left receiver, and an early style receiver cover lock.

The FN-49 was used to equip the Venezuelan Army until about 1960. In the late 1960s all surviving guns were sold as surplus in the U.S. These rifles were never used in combat, therefore many are found in excellent to mint condition.

#### THE EGYPTIAN CONTRACT

The Egyptian version of the FN-49 was in production from 1949 through about 1952. A total of approximately 37,602 rifles were manufactured during this time making it the second largest contract. All rifles in this contract chambered the 7.9 mm Mauser cartridge and all were semi-automatic.

Aside from the receiver ring crest (Figure 13), the Egyptian contract rifles had a number of unique features that



Figure 13. Egyptian Contract receiver ring crest.



Figure 14. Egyptian Eagle crest.

readily distinguished them from the other contracts: serial numbers and rear sight graduations were in Arabic; brass buttplate with a trap door; brass marking disc on the right side of the buttstock; and the muzzle was equipped with a full-length muzzle cap.

Rifles manufactured prior to approximately serial number 28,000 rarely had the dovetail slot milled into the left receiver. Around serial number 28,000 the full-length dovetail slot was phased into production and subsequently it appeared on all rifles until the end of production. Carrier handles were knurled throughout production. All rifles in this contract were equipped with an early style receiver cover lock. In the 33,000-35,000 serial number range, rifles were equipped with a third sling swivel secured to the stock immediately in front of the magazine.

The Egyptian FN-49s were used to equip the Egyptian Army. These rifles saw service in the Sinai Peninsula war against Israel in 1956, and were withdrawn from service by the mid-1960s when replaced by Kalashnikov rifle. About 20,000 Egyptian FN-49s were imported into the U.S. and thus are commonly seen, although rarely in top condition.

#### *Egyptian (Century) Eagles*

A scarce and interesting variant of the Egyptian FN-49 is known to collectors as the “Egyptian Eagle”. In 1953, the Egyptian Monarchy was overthrown. Shortly afterwards, the Egyptian government ordered a number of receivers from FN, presumably to be used as replacements for older FN-49s lost to normal attrition. Since Egypt was no longer a monarchy, it was no longer appropriate to use the crown receiver crest, and it was replaced by an Eagle (Figure 14). It is unknown if Egypt ever took delivery of these “Eagles”, but it is known that Century International Arms purchased these receivers during the 1980s, and subsequently built complete rifles from them using a mixture of (mostly) Egyptian parts,

Figure 15. Full length view of the Egyptian FN-49 sniper rifle.



Figure 16. The Egyptian sniper rifle. Note the third sling swivel.

and parts from other FN-49 contracts. These rifles received new, FN-made barrels and, unlike other Egyptian FN-49s, all were equipped with a stock recoil bolt. It is not known exactly how many Eagles were manufactured but production was probably limited to a few thousand rifles. These guns are encountered much less frequently than the standard Egyptian contract rifles described above.

### *The Egyptian Sniper Rifle*

A small number of Egyptian FN-49s were equipped with telescopic sights to be used as sniper rifles (Figure 15). In addition to the telescopic sight the Egyptian FN-49 sniper rifles were equipped with a flash suppressor, left sided cheek rest made of beech wood, and a third sling swivel. Otherwise these sniper rifles were standard Egyptian contract rifles, i.e. they contained no unique markings or non-standard parts, and no special preparation seems to have gone into their assembly. The addition of the telescopic sight and cheek rest was probably performed in Egypt. All Egyptian sniper rifles are found in the 33,500-35,000 serial number range.

The Egyptian sniper rifles utilized a 2.5X Meopta scope mated to an ECHO mount and OIP base (Figure 16). The Meopta scopes, originally of Czechoslovakian manufacture, were modified for use with the ECHO mount. These scopes originally had a mount cast as part of the scope tube. This mount was ground off and an extension tube was added to the front end of the scope to make it long enough for use with the ECHO mount (Figure 17). The top of the scope tube was then engraved with the rifle's serial number in Arabic. The ECHO mount and rings were manufactured in Boise, Idaho by the Herkner Company, and the base was

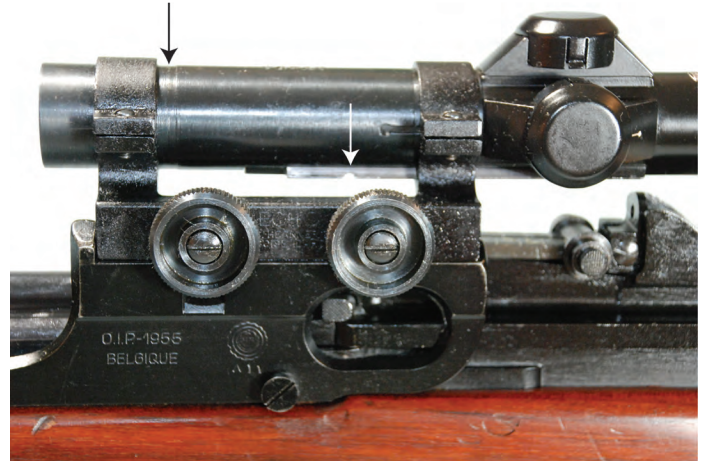


Figure 17. Close up of the Meopta scope, Echo mount, and OIP base. Note the remnants of the mount which has been ground off the bottom of the scope and the extension added to the front of the scope tube.

manufactured by the Belgian company Optique et Instruments de Precision (OIP). The bases were dated 1955 and marked O.I.P., and had a serial number in Arabic that was distinct from the rifle or scope serial number.

It is not known how many Egyptian sniper rifles were assembled, but one estimate based on the observed serial number range of bases (all fall between 800 and 900) suggests that about 100 were made. Only 30 of these rare rifles are known to have been imported into the U.S., in 1986, by the Navy Arms Company.

### THE BELGIAN CONTRACT

The Belgian contract was by far the largest FN-49 production contract. From 1950 until 1953, approximately 88,000 Belgian FN-49s were produced. Thereafter, a small number of rifles were assembled and delivered to the Belgian Army as late as 1959. All Belgian Contract FN-49s chambered the .30-'06 cartridge. The vast majority of these rifles were probably selective fire, although neither FN nor the Belgian government has been willing to divulge the exact number of selective fire FN-49s made.

Two different crests were used on the receiver ring. The Leopold crest, of King Leopold III, (Figure 18) was used until mid-production when replaced by the Baudouin crest. The Baudouin crest is essentially identical to the Leopold crest



Figure 18. The Leopold receiver crest of an early Belgian FN-49.

except a script B replaces the script L, and the details of the crown are subtly different. Baudouin was the son of Leopold and succeeded his father to the Belgian Throne following the latter's abdication in 1953.

The Belgian contract introduced a new collar-style muzzle cap, which was then used on all subsequent FN-49 contract rifles, and a cupped steel buttplate with a trap door. The earliest rifles in this contract had no dovetail slot, but after approximately serial number 5000 the full-length dovetail slot appeared on all rifles. At about the same time, a recoil bolt appeared in the stock. The improved receiver cover lock and smooth carrier handle were introduced late in production, probably around serial number 70,000.

The Belgian FN-49s were used by the Belgian Army as part of the United Nations contingent in Korea 1951-1955, and in the Congo during the 1960 Congolese civil war. By the mid-1960s the FN-49 had been replaced by the FN-FAL and thereafter it was relegated to reserve status. Belgium began offering the FN-49 on the surplus market around 1970. Small numbers were sold in Europe, Canada and Australia. Many of these guns had their receiver crest removed prior to sale. Few of these guns were imported into the U.S. and thus Belgian contract FN-49s are rare in this country. The Belgian government is also reported to have destroyed large quantities of surplus FN-49s.

#### *The Belgian FN-49 Sniper Rifle*

The Belgian Army ordered 362 FN-49 sniper rifles in 1952. Referred to as the "fusil de tireur d'élite", these were standard production rifles fitted with an ambidextrous walnut cheek piece and telescopic sights. The work was performed at the FN factory in Herstal. Apparently no attempt was made to select accurate rifles, no special fitting was done, and other than the cheek rest, no special parts were employed. There are no special markings that distinguish a Belgian FN-49 sniper rifle from a standard production rifle.



Figure 19. The receiver ring crest of a Luxembourg Contract rifle.

All were fitted with a fixed power, 4X OIP scope on an ECHO mount and an OIP style base. These rifles were nearly identical to the Luxembourg sniper rifles described in the next section.

#### THE LUXEMBOURG CONTRACT

Luxembourg contract rifles were in production at FN from 1951 through 1953. A total of 6,306 rifles (including sniper and police variants) were manufactured. All Luxembourg FN-49s utilized the .30-'06 cartridge. The early production guns were semi-automatic, while approximately the last 2,000 rifles were selective fire.

The receiver crest of the Luxembourg contract rifles was simply "AL" which stood for Armie Luxembourg (Figure 19). These rifles are virtually identical to the Belgian contract FN-49s. All had the collar style muzzle cap, cupped sheet metal buttplate with a trap door, early style receiver cover lock, knurled carrier handle and the left receiver was without the dovetail slot. Late in production (approximately the last 2,000 rifles), the improved receiver cover lock, smooth carrier handle and full-length dovetail slot were phased in. A recoil bolt was added to the stock at this time.

The FN-49 was used by the Luxembourg Army in Korea, 1952-53, as part of the United Nations peace-keeping force, but otherwise these rifles saw little service. Within 5 years of receiving their last FN-49s in 1953, Luxembourg began placing orders for the FN-FAL. The FN-49s were withdrawn from service by 1963, and subsequently nearly all were sold on the surplus market in the U.S. Luxembourg FN-49s are often found in excellent to new condition.

#### *The Luxembourg Gendarmerie FN-49 Rifle*

Between 1953 and 1954 the Luxembourg Gendarmerie purchased a total of 100 FN-49 rifles. These were identical to

Figure 20. Full length view of the Luxembourg sniper variant FN-49.



Figure 21. The ambidextrous cheek rest as seen on Belgian and Luxembourg sniper rifles.



Figure 22. Close up of the base, ECHO mount and OIP scope of a Luxembourg contract sniper rifle.

the late production guns that were being manufactured at that time and all were selective fire. These guns are identifiable by their unique serial number sequence: GL1-GL100. Although some of these rifles had AL stamped on the receiver ring, most did not. These were the only FN-49s originally produced without a receiver crest. These rare guns are unknown in private collections and all probably remain in the Gendarmerie inventory.

#### *The Luxembourg FN-49 Sniper Rifle*

In 1952 Luxembourg placed an order with FN for 203 sniper rifles (Figure 20). They were serial numbered 7001-7203. Like their Belgian equivalents, these were standard production rifles fitted with a 4X OIP scope, OIP-style base, ECHO mount and rings, and an ambidextrous walnut cheek piece (Figures 21-22). The scopes were serial numbered (not to match the rifle) and marked "AL" along with the OIP initials and a stock number. The bases were also serial numbered, but again, this did not match the serial number of the rifle or scope. When the Luxembourg sniper rifles were sold as surplus in the late 1960s, their AL-marked OIP scopes were removed and retained by the Luxembourg Army. Luxembourg sniper rifles are thus often found with Belgian OIP scopes, which are identical to the Luxembourg scopes, except they were marked ABL rather than AL.

#### THE INDONESIAN CONTRACT

The FN-49 was used by the Indonesian land and marine forces. These guns were produced from 1951 through 1953 with an additional 100 rifles ordered in late 1960. Production totals are difficult to determine for this contract but it is known that the Indonesian Government placed orders for a total of 16,100 rifles (6,000 for the Army and 10,100 for the Marines).

All Indonesian contract FN-49s operated in semiautomatic mode only and all fired the .30-'06 cartridge. The crest (Figure 23) was an Eagle over A.D.R.I. (land service) or A.L.R.I. (marine service). Very few of these rare rifles have been observed outside of Indonesia, therefore it is difficult



Figure 23. The Indonesian contract receiver crest.

to determine how or if the design changed during production. However, all appear to have been equipped with the collar style muzzle cap, a corrugated steel buttplate without a trap door, a knurled carrier handle, and a recoil bolt in the stock. The early style receiver cover lock was used on early production guns and the improved style was likely phased into production about half-way through the contract. Early rifles had no dovetail slot on the left receiver. The Indonesian contract rifles had their serial number applied to the left side of the receiver rather than the right, which was the convention with most other FN-49s.

The FN-49 remained in front line service with the Indonesian Army and Marines from about 1952 through the mid 1960s. These rifles were probably used in U.N. peace-keeping missions in 1956-57 in the Sinai Peninsula, and in the Congo during the early 1960s. The FN-49 was probably used in Indonesia against anti-government rebels during the 1950s and 1960s. The Indonesian FN-49s were removed from front line service by 1970. The fate of these rifles remains unknown, but they have never been offered on the surplus market anywhere in the world. These rifles are very rarely seen in private collections.

#### THE BELGIAN CONGO CONTRACT

The Belgian Congo received small numbers of FN-49s. It is believed a total of 2,795 rifles were produced from 1951 through 1953. All of the rifles in this contract fired the .30-'06 cartridge and were selective fire. These rifles were used by the Congolese Army and the Force Publique (i.e., the Congolese Police).

Two different receiver crests were used on these rifles. The guns destined for the Force Publique had a lion and crown coat-of-arms over the inscription "F.P." followed by the date of production (Figure 24). The Congolese Army rifles had the lion and crown coat-of-arms alone without any inscription.



Figure 24. Illustration of the Belgian Congo receiver crest as seen on the rifles of the Force Publique.

Few of these rifles have been observed, so it is difficult to determine what design features may have prevailed. All appear to have been equipped with a cupped steel buttplate with a trap door and a collar style muzzle cap. The early style receiver cover lock was probably used on early production guns with the improved lock phased into later production. Most or all of these rifles probably incorporated a recoil bolt. The carrier handle was knurled on most rifles although knurling was probably phased out late in production.

Since gaining independence in 1960, the Congo has been involved in almost constant civil war and internal strife. Although replaced by the FN-FAL as early as the late 1950s, the FN-49 continued to be used in these various wars for many years thereafter. The FN-49 was used by both the Congolese Army and, when captured, by anti-Government forces. As a result of this nearly constant use, the survival rate of Belgian Congo FN-49s is low, and today they are rarely encountered in private collections. A number of these rifles were returned to Belgium to be rebuilt, probably during the late 1950s. These rifles are recognizable by their grey paint finish prevalent at Belgian Army arsenals at that time.

#### *The Belgian Congo FN-49 Sniper Rifle*

In 1954 the Belgian Congo ordered 185 Sniper rifles from FN. These rifles were similar in appearance to the Belgian and Luxembourg sniper rifles. They were late production Congolese FN-49s equipped with OIP-style bases, and ECHO mounts. The few examples that are known were equipped with OIP scopes.

#### THE COLUMBIAN CONTRACT

The Columbian contract was the smallest of the major FN-49 production contracts—a mere 1,000 rifles were



Figure 25. The Columbian contract receiver ring crest.



Figure 26. The Argentine Contract receiver crest.

produced in 1952-53. The Columbian contract FN-49s all fired the .30-'06 cartridge and operated only in semi-automatic mode. The Columbian coat-of-arms appears on the receiver ring (Figure 25).

All Columbian FN-49s had a full-length dovetail slot on the left side of the receiver. The improved receiver cover lock, a bolt carrier left in-the-white with a knurled handle, and a stock recoil lug were used on all Columbian rifles. Two types of buttplates were used on Columbian FN-49s. Original rifles had a corrugated steel buttplate without a trap door. A rubber recoil pad was also used but it is believed these were added at the time of rebuild (see below).

The FN-49 was used by the Columbian Marines from 1953 until the early 1960s when it was withdrawn from service. All surviving guns are believed to have been sent to the U.S. for sale in the late 1960s. Most observed Columbian FN-49s appear to have been rebuilt and refinished, probably in Columbia, prior to export to the U.S.

#### THE ARGENTINE CONTRACT

The Argentine FN-49 was in production at FN from 1953 until 1955. The total number produced during this time was 5,536 rifles. All were originally manufactured in 7.65 mm Argentine Mauser caliber and all were semiautomatic. The Argentine FN-49 was used by the Argentine Marines. The Argentine coat-of-arms was stamped on the receiver ring (Figure 26) and an "ARA" (Armada Republica Argentina) mark was applied to the left receiver and left buttstock.

Around 1970 all existing Argentine FN-49s were recalled and converted to fire the 7.62 X 51 mm NATO cartridge. This conversion was performed by a private firm in Argentina and consisted of replacing the barrel, modifying the magazine well to accept a detachable 20-round magazine, replacing the extractor and ejector and refinishing the gun in a matte black paint. A collar style muzzle cap,



Figure 27. Illustration of the Brazilian crest as seen on Brazilian Contract rifles.

improved receiver cover lock, smooth carrier handle, and a recoil bolt in the stock were employed in the production of all Argentine FN-49s. None of these rifles had the dovetail slot for mounting a scope.

The Argentine FN-49s were withdrawn from service in the 1980s and then sold as surplus in the U.S. Two large imports into the U.S. occurred; the first circa 1995 and the second in 2003. Most of these rifles were in fair to good condition and came equipped with a matching serial number bayonet.

#### THE BRAZILIAN CONTRACT

The final production contract for the FN-49 was the Brazilian contract. A total of 11,002 Brazilian FN-49s rifles were produced from 1953 to 1956. All chambered the .30-'06 cartridge and were semi-automatic. The receiver ring bears the Brazilian coat-of-arms (Figure 27). "MARINHA BRASILEIRA" and the year of production were stamped on the left side of the receiver in place of the dovetail slot.

Brazilian contract FN-49s had features typical of late contract guns: a collar style muzzle cap, the improved receiver cover lock, a cupped steel buttplate with a trap door, a smooth carrier handle and a stock recoil lug. Unlike other FN-49s, the Brazilian contract rifles have been observed with a dark charcoal grey paint finish.

The FN-49 was used exclusively by the Brazilian Marines. These rifles probably saw action in a coup attempt by the Brazilian Marines in 1964. In 1965 the Brazilian Marines were deployed to the Dominican Republic on a peace keeping mission and it is likely that the FN-49 was used on this mission. The FN-49 was replaced by FN-FAL in late 1960s. The fate of the approximately 11,000 Brazilian FN-49s is unknown. To date no exports are known, and thus these rifles are rarely encountered in the collectors market.



## BAYONETS

In most instances the FN-49 was issued with the Belgian Model 1949 Short Export bayonet which was 14 inches in overall length. Brazil, Venezuela, and Indonesia, however, choose to use the Model 1924/49 Long Export bayonet which was 20-1/4 inches in length.

## SUMMARY AND CONCLUSION

At the time it was designed, in the late 1930s, the FN-49 had a number of advanced features. It had a simple and robust gas mechanism that was fully adjustable. A removable receiver cover and a detachable magazine greatly simplified disassembly and there was a provision for cleaning the barrel from the breech. It is intriguing to speculate how the FN-49 would have fared in comparison to the famous Garand rifle. Unfortunately, although the FN-49 was a promising design, it was never battle tested to the extent the Garand rifle was, and thus it never achieved the status of the Garand. After a relatively small production run of just over 176,000 rifles, manufacture of the FN-49 was terminated. A summary of production by contract is presented below.

<i>Contract</i>	<i>Total Production</i>
Belgian Contract	88,000
Egyptian Contract	37,602
Indonesian Contract	16,100
Brazilian Contract	11,002
Venezuelan Contract	8,012
Luxembourg Contract	6,306
Argentine Contract	5,536
Belgian Congo	2,795
Columbian Contract	1,000

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