

M-1 GARAND

TM 9-1005-222-12

PLUS SUPPLEMENTAL MATERIAL FROM

TM 9-1005-222-35 and FM 23-5

Department of the Army Technical Manual

**OPERATOR AND ORGANIZATIONAL
MAINTENANCE MANUAL INCLUDING
REPAIR PARTS AND SPECIAL TOOLS LIST**

RIFLE, CALIBER .30 M 1

**RIFLE, CALIBER .30 M 1C (Sniper's)
and**

RIFLE, CALIBER .30 M 1D (Sniper's)

M-1 GARAND

HEADQUARTERS, DEPARTMENT OF THE ARMY, 17 March, 1969

Operator and Organizational Maintenance Manual

RIFLE, CALIBER .30: M 1, M 1C (Sniper's), M 1D (Sniper's)

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WARNING

Dangerous Solutions

Avoid contact of P-C-111 with skin. If contact does occur, wash compound off thoroughly with running water. A good lanolin base cream is helpful if applied after washing off compound. Recommend use of gloves and protective equipment.

WARNING

Dangerous Conditions

Before starting an inspection, be sure to clear the weapon. Do not actuate the trigger until the weapon has been cleared. Inspect the chamber to insure that it is empty, and check to see that no ammunition is in position to be introduced.

This manual contains portions of U.S. Army Technical Manuals, TM 9-1005-222-12, TM 9-1005-222-35, and U.S. Army Field Manual FM 23-5. All photographs and drawings in this manual, the text of Chapter 1, "Origins and Development", and other additional text have been added to the original Army text.

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***This manual supersedes TM 9-1005-222-12P/2, 11 August 1965 in its entirety.**

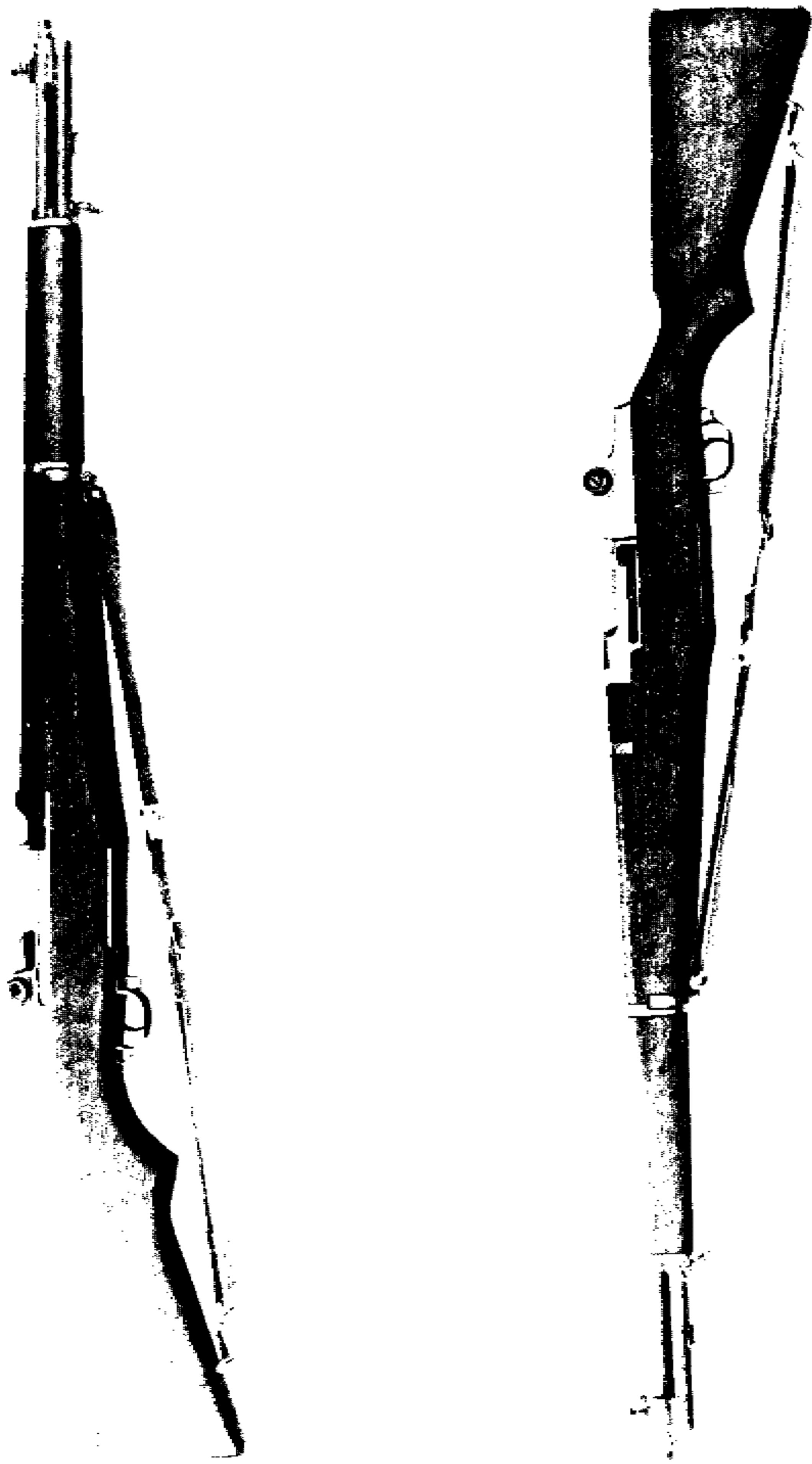


Figure 1. U.S. Rifle, Caliber .30, M 1

PREFACE

This book is the second in our series of small arms technical manuals, and it represents something of a departure from the original U.S. Army publications on which it is based. We have added several photos and sequences which were not shown in any of the Army manuals, and we have used different camera angles in many other photos, in order to provide a better view of the operations being performed. It is hoped that these changes will be viewed as improvements upon the original texts.

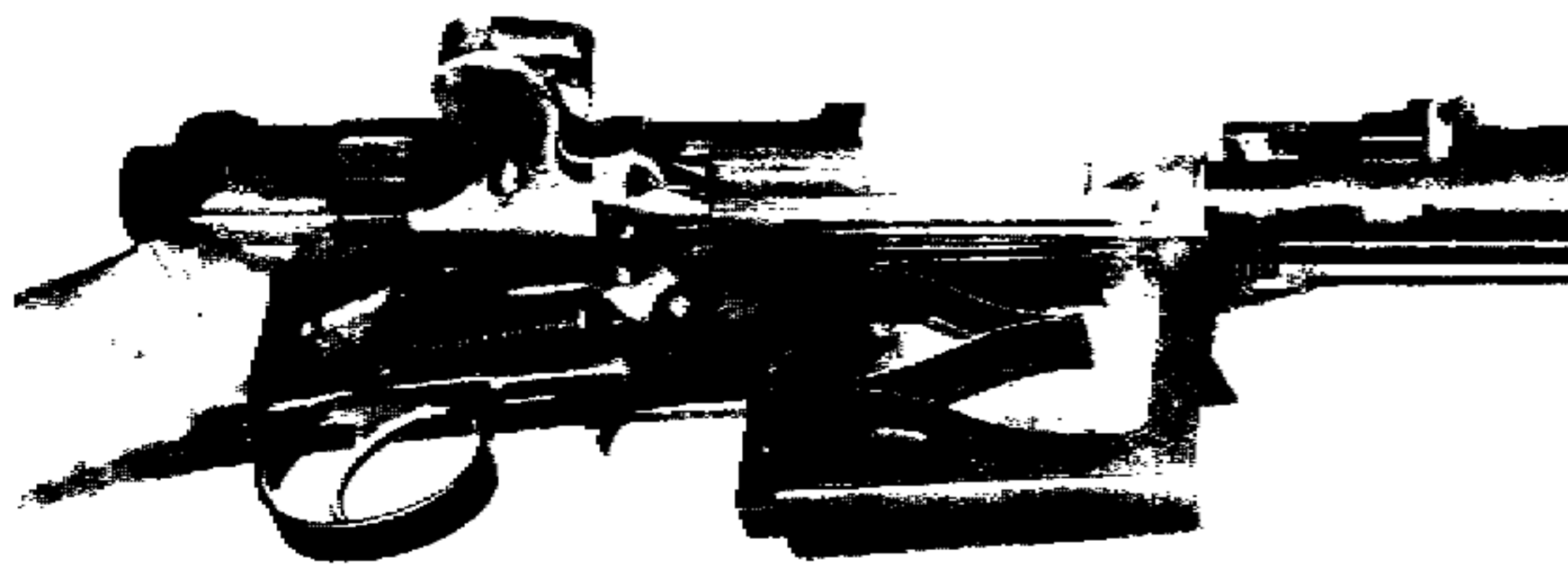
We have also strayed rather far afield in writing the introductory chapter on the history of the M 1. Since the available space would not permit a detailed history of the rifle, nor an adequate biography of John C. Garand, himself, the chapter focuses on the long and tortuous development process which led to its adoption. It is hoped that the chapter will lead to an appreciation of the background of this remarkable weapon and its important place in military history.

We would also like to express our thanks to Springfield Armory, Inc., of Geneseo, Illinois, for providing information and the photo of their version of the T 26 "Tanker" Garand, surely one of the most legendary side lights to the M 1 story.

The real "stars" of the book, however, are the rare and fascinating weapons which we were able to photograph, thanks to three of the finest and friendliest gun collectors one could ever hope to meet. Bill Douglas, of Dunedin, Florida would never part with his valuable M 1C. Just imagine letting someone take a screwdriver to it, for the sake of a couple of pictures! Pierre Posse, of Sebring, Florida, trekked home, some sixty miles, to fetch his Pedersen rifle, just so we could photograph it at a gun show! Finally, Ronnie Butler, of Lakeland, Florida, invited us to his home twice to examine and photograph several prized pieces from his collection, including the extremely rare Mondragon rifle. Not only does Ronnie have one of the finest collections of military rifles around, but his charming wife, Katrinka, shares in his hobby with interest and enthusiasm to match his own. Some guys just have it all!



Figure 2. Mondragon semi-automatic rifle.
From the collection of Ronnie Butler.



SIG 760 550

Figure 3. S.I.G. Factory cut-away photo of
Mondragon rifle. Courtesy of Ronnie Butler.

Introductory Chapter "Origins and Development of the M 1 Garand"

By Jeff Lesemann

"The M 1 rifle is the greatest battle instrument ever devised"
General George S. Patton

On first glance, Patton seems to have been making another of the sweeping exaggerations which characterized so many of his public statements. But was it really such an exaggeration? In order to properly understand the M 1 rifle and the reputation that it earned, we ought to examine the complex story of its development. We must also remember the context in which General Patton's high praise was given. Only then can the relative merits and drawbacks of the M 1 Garand be accurately weighed.

The semi-automatic military rifle had its origins in one of the most unlikely places imaginable. General Manuel Mondragon, of the Mexican Army, was something of a ballistics expert and the inventor of a straight-pull bolt action rifle, in which the bolt handle cammed a rotating bolt face to unlock the breech and open the action. These rifles, which are now extremely rare, were chambered in an equally rare 5 mm caliber. While General Mondragon was serving as Mexico's Military Attache' to France, he developed his bolt action rifle into a practical, gas-operated, semi-automatic weapon. In 1907 he patented the rifle in the United States, and he then had it built by S.I.G., in Switzerland. The Mexican Army accepted the rifle for service and placed an initial order for 4,000 pieces. Production began in 1912, but the outbreak of World War I interrupted delivery after only a handful of rifles had reached Mexico. Instead, they went to Germany, where they were issued to the Flying Corps. General Mondragon was caught up in the turmoil of Mexico's revolution of 1916, after which he and his remarkable rifle both faded into obscurity.

The Mondragon semi-automatic rifle (see fig. 2) was a remarkable and well made weapon, with a number of advanced features, including a gas cut-off, which had the effect of converting the rifle back to a straight-pull bolt action, and a bolt disconnect, enabling the bolt to be opened manually for loading and cleaning. Some models of the rifle also featured a detachable box magazine, with a capacity of up to twenty rounds. It was chambered for the excellent 7 mm Mauser cartridge, and the bolt was designed with four extremely strong locking lugs. (see fig. 3) Considering the difficulties which were to plague the development of a successful semi-automatic military rifle, this obscure pioneer showed truly remarkable sophistication!

The next semi-automatic rifle to be developed, and the first to be presented to the U.S. Army for trials, came from a Danish inventor, with the extraordinarily appropriate name of Soren Bang. His rifle was submitted for tests at Springfield Armory in 1911, and it showed considerable promise. It was another gas-operated design, with a method of operation that harkened back to some of the early experiments of John Browning. On Bang's rifle, a funnel-like cap was fitted over the muzzle. As the bullet passed by, the gasses behind it filled the cap and pushed it forward, operating the action through linking arms. It all worked quite well, but the rifle suffered from severe overheating problems, which were never solved. In 1927 Bang submitted another rifle, but it, too, was unsuccessful. Mr. Bang was not heard from again.

The French developed a semi-automatic rifle in 1916, which was built at the St. Etienne Arsenal. (see fig. 4) Although it was built in substantial numbers and issued to French troops toward the end of World War I, this gas-operated weapon, built around the rimmed 8 mm Lebel cartridge, was truly an armorer's nightmare! (see fig. 5) Both the bolt and the magazine were prone to failure, and the St. Etienne passed from the scene following the end of World War I.

In keeping with the international flavor of this story, the next entry in the semi-automatic sweepstakes came from a Chinese inventor! T.E. Liu, of China's Hangyang Arsenal, built two slightly different gas-operated rifles, which were submitted in 1918. They used the gas-cap idea, previously tried on the Bang rifle, but they were equally unsuccessful. The problem with this