US M14 and M14A1 Rifles FM23-8

Rifle Marksmanship

FIELD MANUAL

No. 23-8

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D. C., *15 April 1974*

M14 AND M14A1 RIFLES,

AND RIFLE MARKSMANSHIP

*This manual supersedes FM 23-8, 7 May 1965, including all changes.

Addendum

1. **FM** 23-8, April 1974, is changed as follows:

Page 153. Add the following:

b. General. Instructional firing is practice firing on a marksmanship range with help from an instructor. The coach and firer method may be used.

b. Purpose. Instructional firing with the M14 and M14A1 develops the skill needed to engage targets during record fire.

c. Procedure. Instructional firing uses the same procedures for conducting record fire I. Coaches and instructors will critique firers during this exercise. All rounds are scored, but the scores are diagnostic and do not count toward qualification.

2. Post these changes per DA pamphlet 310-13

3. File this change in the front of the publication.

CHAPTER 1

INTRODUCTION

1. Purpose and Scope

This manual provides guidance for presenting instruction with the M14 and M14A1 rifles. It contains a detailed description of the rifle and its general characteristics, procedures for disassembly and assembly, operation and functioning of the rifle, types of stoppages and action to reduce them, types of ammunition, maintenance, fundamentals of rifle marksmanship, battlesight zero, field firing, target detection, automatic fire, quick fire pointing technique, record fire, and advanced marksmanship training.

2. Objectives

The objectives of the United States Army rifle marksmanship program are to—

a. Develop in every soldier during training—

(1) The confidence, will, knowledge, and skills required to fire a rifle and hit enemy personnel in combat.

(2) The ability to apply correct techniques of rifle marksmanship when functioning as an individual in a unit engaged in combat.

b. Insure that every soldier maintains a continuing degree of proficiency in combat rifle firing, consistent with the mission of the unit to which he is assigned.

c. Provide in time of peace a large number of shooters from which potential precision marksmen can be selected and further trained to successfully compete in interservice, civilian, and international competition.

d. Provide in time of war, an instructor base or cadre for sniper training, if it is required.

e. Insure that every soldier can properly maintain his weapon.

3. Training Conditions

a. The procedures and techniques used in the United States Army rifle marksmanship training program are based on the concept that riflemen must be proficient marksmen capable of effectively applying their shooting skills in combat. The degree of proficiency attained by a rifleman is largely dependent upon correct instruction and the proper application of marksmanship fundamentals. Initially, during marksmanship training, emphasis is placed on learning or reviewing shooting fundamentals. These fundamentals are taught in an environment designed to prepare soldiers for combat-type training exercises. Thus, emphasis on the combat applications of marksmanship is gradual, and such training is based on conditions affecting marksmanship on the battlefield. The more common of these battlefield conditions are as follows:

(1) Enemy personnel are seldom visible except in the assault.

(2) Most combat targets are linear in nature and will consist of a number of men or objects irregularly spaced along covered or concealed areas such as ground folds, hedges, and borders of woods.

(3) Most combat targets can be detected by smoke, flash, dust, noise, or movement and will only be visible for a brief moment.

(4) Combat targets can be engaged by using nearby objects as reference points.

(5) The range at which individual personnel targets can be detected and effectively engaged will rarely exceed 300 meters.

(6) The nature of the target, irregularities of terrain, and vegetation will generally require a rifleman to use a position other than the prone position to place effective fire on the target. In a defensive situation the rifleman will usually be firing from a foxhole position or other type defensive emplacement.

(7) Selecting an aiming point in elevation is difficult because of the low outline and obscurity of most combat targets.

(8) The conditions of rifle fire in combat rarely require or permit mechanical adjustments of the rear sight.

(9) Targets in combat requiring time-pressure fire are basically of two types:

(a) A single fleeting target that must be engaged within a minimum unknown time period.

(b) A number of distributed targets engaged within the time they remain available. In the latter case the firer, at times, may select the time spent in engaging individual targets.

b. Competition between individuals and units is an effective means of motivating the individual and building unit pride, but they should *never* be fostered at the expense of the ultimate objective of the marksmanship program—to produce well-trained combat riflemen. Should that objective become secondary to obtaining high scores on the range or qualifying the maximum number of

soldiers, then it is only a matter of time before the more difficult aspects of the marksmanship course(s) are either eliminated or simplified to the point of being useless.

c. None of the marksmanship courses, techniques, requirements, or objectives outlined in this manual are beyond the capability of any individual who has been found physically qualified for military service provided he is given correct instruction and proper supervision.

CHAPTER 2

MECHANICAL TRAINING

Section I. CHARACTERISTICS

4. Description of the Rifles

a. M14 Rifle.

(1) The US rifle, 7.62-mm, M14 (fig 1) is a lightweight, aircooled, gas-operated, magazine-fed, shoulder weapon. It is designed primarily for semiautomatic fire.

(2) When employed as an automatic rifle, the selector and M2 bipod must be installed (fig 2).

(3) The flash supressor is designed with a wide rib on the bottom to reduce muzzle climb and the amount of dust raised by muzzle blast.

(4) The lug on the rear of the flash suppressor is used to secure a bayonet, a grenade launcher, or a blank firing attachment.

(5) The spindle valve is located just forward of the front band between the barrel and gas cylinder. The valve's function is to control the gases used to operate the rifle. When the slot of the spindle valve is in the vertical or ON position, the valve is open and gases necessary for the functioning of the rifle pass into the gas cylinder. When the slot of the spindle valve is in the horizontal or OFF position, the valve is closed. When the valve is closed, it permits the full pressure of the gas to be utilized to propel a rifle grenade and it also prevents the bypass of gas into the gas cylinder.

b. M14A1 Rifle.

(1) The US rifle, 7.62-mm, M14A1 (fig 3) is an aircooled, gas-operated, magazine-fed, shoulder weapon. It is capable of semiautomatic or automatic fire; however, it is designed primarily for automatic fire. It features a stablizier assembly, modified bipod, front and rear handgrip, straight line stock, and rubber recoil pad.

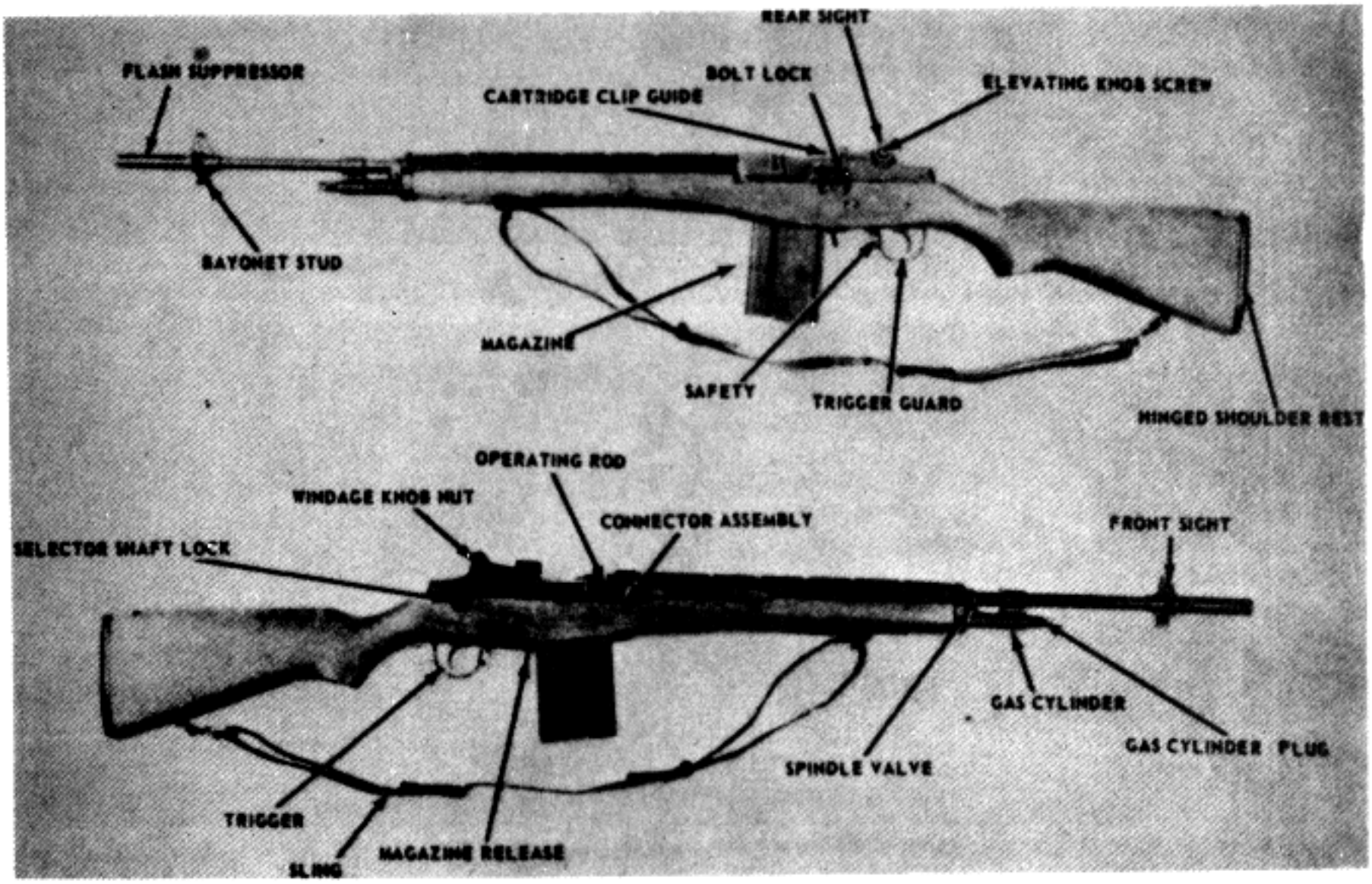

Figure 1. M14 rifle.

Figure 2. M14 rifle with selector and M2 bipod.

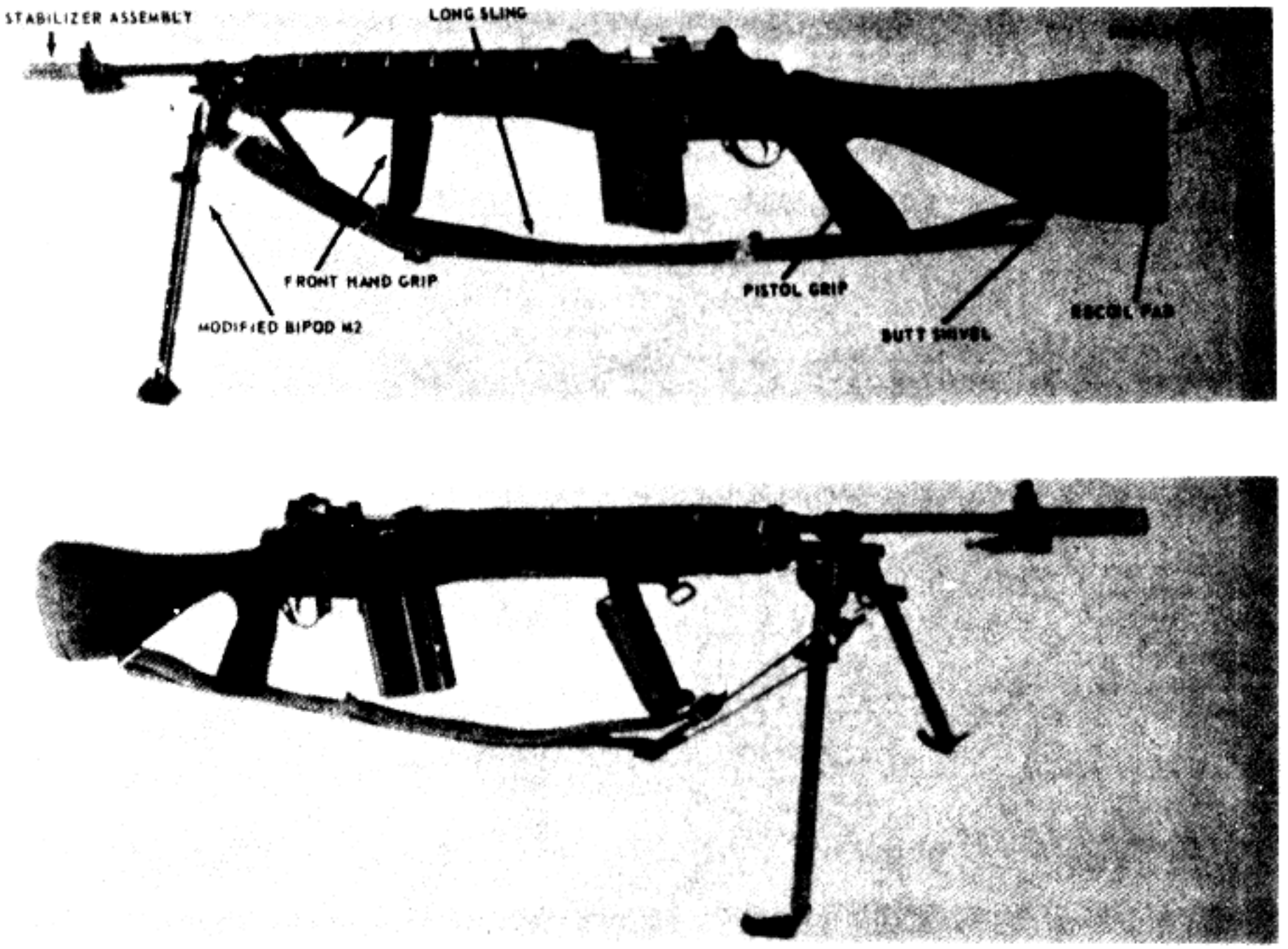

Figure 3. M14A1 rifle.

(2) The M14A1 stock group is the "straight line" type with a fixed pistol grip and folding front handgrip which lies flat along the bottom of the stock when not in use. The location of the front handgrip can be adjusted to one of five positions in 2.5 cm (1 inch) increments to accomodate all firers. The rubber recoil pad reduces the effects of recoil. The hinged shoulder rest provides vertical control of the butt end of the rifle. The butt sling swivel pivots 90 degrees to the left to facilitate carrying of the weapon.

(3) The stabilizer assembly consists of a perforated steel sleeve which slides over the flash suppressor and is fastened to the bayonet lug by a screw and a locknut. The stabilizer provides muzzle stability and reduces recoil.

(4) The M2 bipod is modified by the addition of a sling swivel and a longer yoke assembly pin to accommodate the swivel.

(5) The M14A1 utilizes a sling with an extra hook assembly. The portion of the sling between the handgrip and the bipod provides additional muzzle control during firing. It allows the average firer, by applying rearward pressure on the front handgrip, to increase the pressure of the bipod on the ground to approximately 16 kilograms (35 pounds), reducing dispersion considerably. When the weapon is carried at sling arms, the sling must be disconnected from the handgrip assembly.

5. General Data

a. Weights.

	Kilograms	*(Pounds)*
M14 rifle with full magazine and cleaning equipment	4.59	(10.1)
M14 rifle with full magazine, cleaning equipment, selector, and bipod	5.38	(11.85)
Empty magazine	.23	(.5)
Full magazine (with ball ammunition)	.68	(1.5)
Cleaning equipment	.27	(.6)
M2 bipod	.80	(1.75)
M14A1 rifle with full magazine	5.95	(13.12)

b. Lengths.

	Centimeters	*(Inches)*
M14, overall, with flash suppressor	112.5	(44.3)
M14A1, overall with stabilizer assembly	112.5	(44.3)

c. Sights.

Front	Fixed.
Rear	Adjustable, one click of elevation or windage moves the strike of the bullet .7 centimeters at 25 meters (2.8 cm or 1.1 inch at 100 meters).

d. Ammunition ..... See paragraph 26.

e. Trigger Pull.

	Kilograms	*(Pounds)*
Minimum	2.0	(4.5)
Maximum	3.4	(7.5)

f. Operational characterics.

	Meters per Second	*Feet per Second*
(1) Muzzle velocity	854	(2800)
(2) Cyclic rate of fire (rounds per minute)	750	

(3) *Rates of fire.* These can be maintained without danger to the firer or damage to the weapon.

(a) Semiautomatic. Rounds per minute for a maximum period of:

2 minutes	40.
10 minutes	30.
20 minutes	20.
30 minutes (or more)	15.

(b) Automatic. Rounds per minute for a maximum period of—

1 minutes	60.
2 minutes	50.
5 minutes	40.
15 minutes	30.
20 minutes	25.
30 minutes (or more)	20.

(4) *Range.*

	Meters
Maximum effective (semiautomatic, without bipod)	460.
Maximum effective (semiautomatic, with bipod)	700.
Maximum effective (automatic, with bipod)	460.
Maximum	3725.

g. Terms.

(1) Cyclic rate of fire	The maximum rate at which a weapon fires automatically.
(2) Maximum range	The greatest distance the projectile can travel.
(3) Maximum effective	The greatest distance at which a weapon may be expected to fire accurately to inflict casualties or damage.

Section II. DISASSEMBLY AND ASSEMBLY

6. General

a. The soldier is authorized to disassemble his rifle to the extent called field stripping. Chart 1 shows the parts he is permitted to disassemble with and without supervision. The extent of disassembly he is permitted to perform without supervision is adequate for normal maintenance. Additionally he may disassemble the gas system, but only when it is required to insure continued functioning of the rifle.

Chart 1. DISASSEMBLY AUTHORIZATION

Part	Soldier	Armorer	Maintenance personnel
SEPARATION INTO THREE MAIN GROUPS	X		
DISASSEMBLY:			
BARREL AND RECEIVER GROUP	X		
Front sight			X
Rear sight		X	
Flash suppressor		X	
Spindle valve			X
Sear release		X	
Selector and selector shaft lock		X	
Bipod M2	X		
Connector assembly (spring and plunger)			X
Bolt lock			X
Cartridge clip guide			X
Operating rod guide			X
Barrel from receiver			X
Stabilizer assembly M14A1	X		
STOCK GROUP:			
Stock liner			X
Upper sling swivel bracket			X
Stock ferrule			X
MAGAZINE	X		
BOLT		X	
Bolt roller from bolt stud			X
FIRING MECHANISM		X	
Magazine latch			X
Sear from trigger			X

b. The frequency of disassembly and assembly should be kept to a minimum consistent with maintenance and instructional requirements. Constant disassembly causes excessive wear of the parts and leads to their early unserviceability and to inaccuracy of the weapon.

c. The rifle has been designed to be taken apart and put together easily. No force is needed if it is disassembled and assembled correctly. The parts of one rifle, *except the bolt*, may be interchanged with those of another when necessary. For safety reasons, bolts should never be interchanged.

d. As the rifle is disassembled, the parts should be laid out from left to right, on a clean surface and in the order of removal. This makes assembly easier because the parts are assembled in the reverse order of disassembly. The names of the parts (nomenclature) should be taught along with disassembly and assembly to make further instruction on the rifle easier to understand.

7. Clearing the Rifle

The first step in handling any weapon is to clear it. To clear the rifle, first attempt to engage the safety. (If unable to place the safety in the safe position, continue with the second step.) Remove the magazine by placing the right thumb on the magazine latch and curl the remaining fingers around the front of the magazine. Press in on the magazine latch, rotate the base of the magazine toward the muzzle end of the rifle (fig 4), and remove it from the magazine well. With the knife edge of the right hand, pull the operating rod handle all the way to the rear, reach across the receiver with the right thumb, and press in on the bolt lock (fig 5). Check the safety to see that is engaged (position it in the SAFE position if it is not), tilt the rifle, and look inside the chamber and receiver to insure that they contain no rounds.

8. Disassembly Into Three Main Groups

a. The three main groups are the firing mechanism, the barrel and receiver, and the stock.

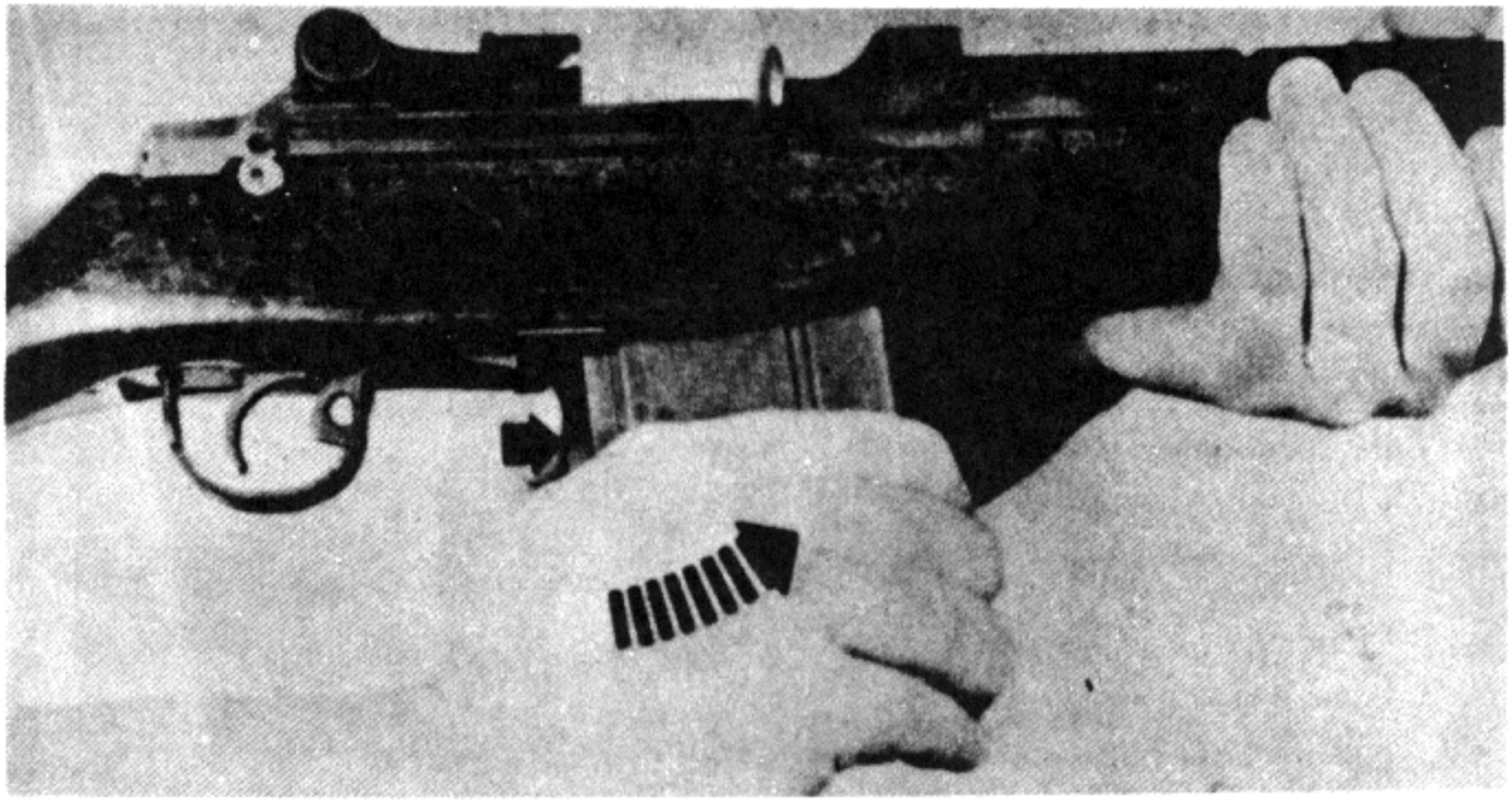

Figure 4. Removing the magazine.