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# FM 23-8

DEPARTMENT OF THE ARMY FIELD MANUAL

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*Replaces by FM 23-8  
1 May 65*

**U. S. RIFLE**

**7.62-MM**

**M14**

**RESCINDED**

**FOR HISTORICAL USE ONLY**

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**HEADQUARTERS, DEPARTMENT OF THE ARMY  
DECEMBER 1959**

AGO 2766B—Dec

FIELD MANUAL  
U.S. RIFLE, 7.62-MM, M14

FM 23-8  
CHANGES No. 1

HEADQUARTERS,  
DEPARTMENT OF THE ARMY  
WASHINGTON 25, D.C., 20 May 1960

FM 23-8, 7 December 1959, is changed as follows:

**1. Purpose and Scope**

\* \* \* \* \*  
b. Marksmanship training is covered in FM 23-5, FM 23-15, and FM 23-71.

**3. Description of Rifle**

a. The M14 rifle \* \* \* installing a selector. **The M14 with bipod attached (fig. 1.1) and the selector installed is designed primarily for automatic fire.**

\* \* \* \* \*  
e. (Added) The final production model of the rifle (fig. 1.1) will be equipped with a slotted handguard and a hinged butt plate.

**4. General Data**

a. *Weights in Pounds.*

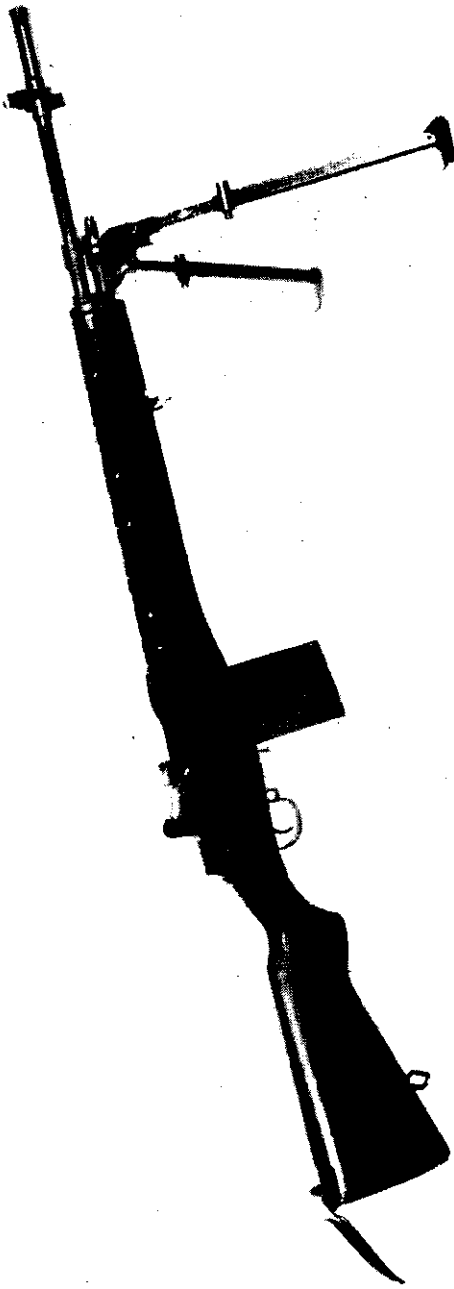
\* \* \* \* \*  
(Added) Bipod, M2----- 1.7

**10. Disassembly of the Bolt**

\* \* \* \* \*  
b. *Bolt in Rifle.* Rescinded.

**11. Assembly of the Bolt**

\* \* \* \* \*  
b. *Bolt in Rifle.* Rescinded.  
Figures 15 (1) and (2). Rescinded.  
Figure 17. Rescinded.



*Figure I.1. (Added) M14 rifle with bipod.*

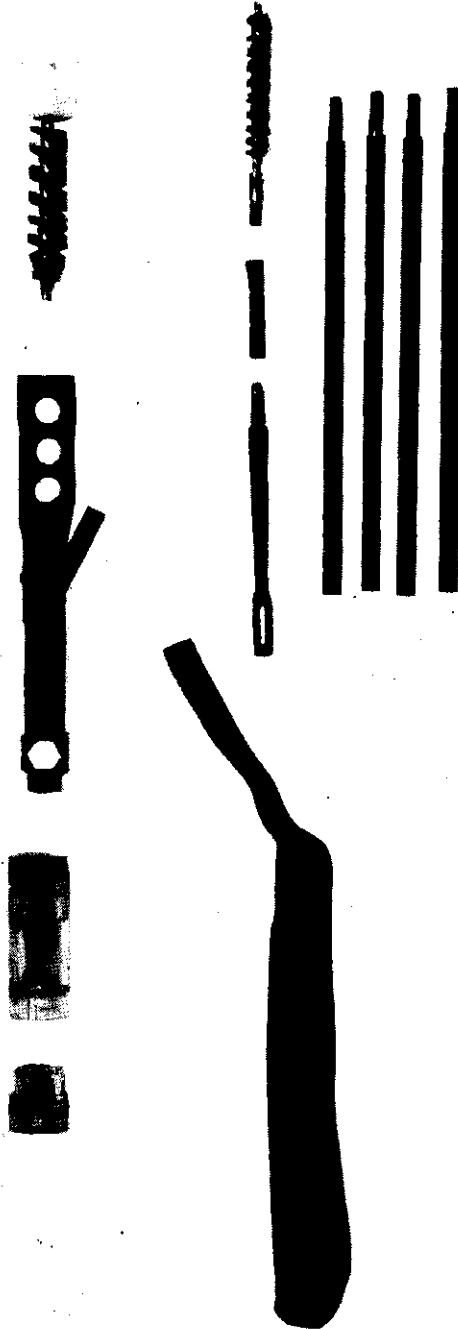
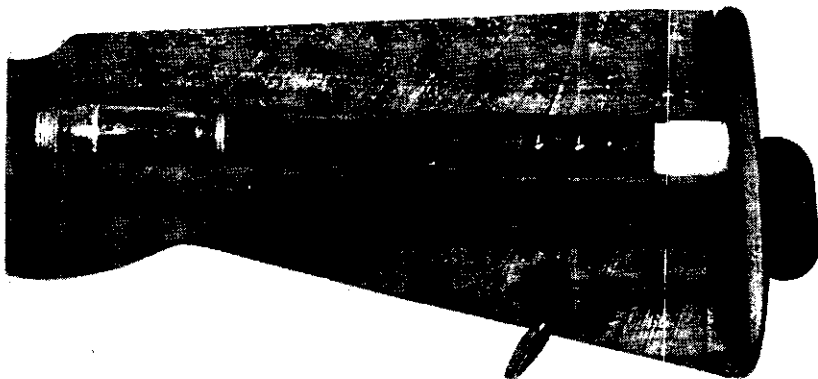


Figure 47. (Superseded) Maintenance equipment.



*Figure 52. (Superseded) Stowage of accessories in butt stock.*

[AG 474.2 (25 Mar 60)]

By Order of *Wilber M. Brucker*, Secretary of the Army :

**L. L. LEMNITZER,**  
*General, United States Army,*  
*Chief of Staff.*

Official :

**R. V. LEE,**  
*Major General, United States Army,*  
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USAR: Units same as Active Army except allowance is two copies for each unit. For explanation of abbreviations used, see AR 320-50.

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FIELD MANUAL

U.S. RIFLE, 7.62-MM, M14

FM 23-8

CHANGES No. 2

HEADQUARTERS,  
DEPARTMENT OF THE ARMY  
WASHINGTON 25, D. C., 15 August 1962

FM 23-8, 7 December 1959, is changed as follows:

4. General Data  
(Superseded)

a. Physical and Mechanical Characteristics.

Weights:

Complete with full magazine (steel), cleaning equipment and selector .....	11.34 pounds
Complete with full magazine (steel), cleaning equipment, selector, and bipod .....	13.09 pounds
Empty magazine (steel) .....	.50 pound
Full magazine (steel, with ball ammunition) .....	1.50 pounds
Cleaning equipment .....	.63 pound,
Bipod M2 .....	1.75 pounds

Length:

Overall with flash suppressor ..... 44.31 inches

Sights:

Front .....	Fixed
Rear .....	Adjustable. One click of elevation or windage equals one minute of angle.

Trigger pull:

Minimum .....	5.5 pounds
Maximum .....	7.5 pounds

Ammunition ..... See chap. 6.

b. Firing Characteristics.

Muzzle velocity (approximate) .....	840 meters per second
Cyclic rate of fire .....	700-750 rounds per minute

Rates of fire: (The following rates of fire can be maintained without danger to the firer or damage to the weapon.)

Semiautomatic:

1 minute .....	40 rounds
2 minutes .....	40 rpm ( 80 rd total)
5 minutes .....	30 rpm (150 rd total)
10 minutes .....	20 rpm (200 rd total)

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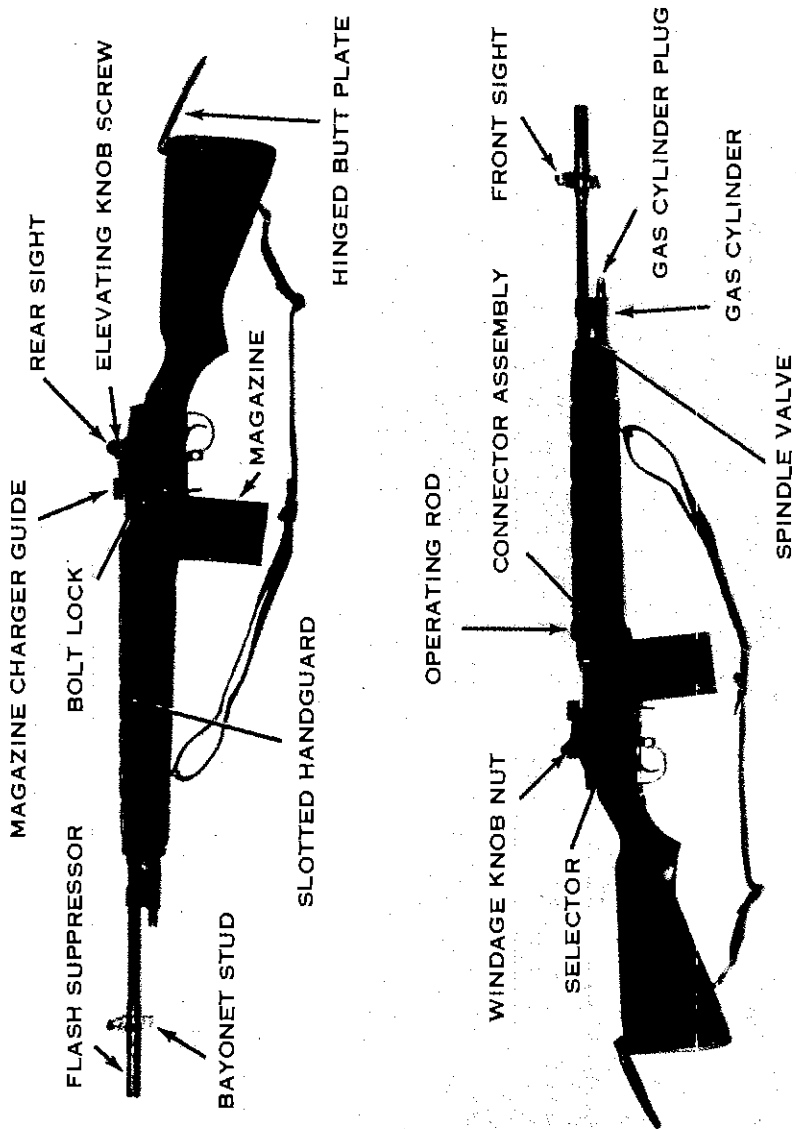


Figure 1. (Superseded) The M14 rifle.

15 minutes	-----	20 rpm (300 rd total)
20 minutes	-----	20 rpm (400 rd total)
30 or more minutes	-----	15 rpm

**Automatic:**

1 minute	-----	60 rounds
2 minute	-----	50 rpm (100 rd total)
5 minutes	-----	40 rpm (200 rd total)
10 minutes	-----	30 rpm (300 rd total)
15 minutes	-----	30 rpm (450 rd total)
20 minutes	-----	25 rpm (500 rd total)
30 minutes or more	-----	20 rpm

**Range:**

Maximum effective (semiautomatic without bipod)	460 meters
Maximum effective (semiautomatic with bipod)	700 meters*
Maximum effective (automatic with bipod)	460 meters**
Maximum (M59 ball ammunition)	3725 meters

*c. Definitions.*

Cyclic rate	-----	The rate at which the weapon fires automatically.
Maximum effective range	-----	The greatest distance at which a rifleman can be expected to fire accurately to inflict casualties or damage.

**6. Separation of the Three Main Groups**

Place the safety in the SAFE position (inside the trigger guard). Place the butt of the rifle on your left hip or thigh with the sights to the left, and loosen the sling. Grasp the magazine with your right hand so the thumb is against the magazine latch and the fingers are around the front of the magazine. Push the magazine latch with the thumb; then push forward, pulling the magazine out of the magazine well (fig. 2). Next, turn the rifle so the sights are to the right. Place the cutting edge of the right hand against the operating rod handle and push it all the way to the rear. While holding it to the rear, reach across the receiver with the thumb of the right hand and press the bolt lock in. Release the pressure against the operating rod handle. Insure that the bolt and bolt lock are engaged. Inspect the chamber to insure it is clear. Pull back on the operating rod handle, release it, and allow the bolt to move forward.

*a. Turn the rifle so the sights are to the left. To remove the \* \* \* firing mechanism assembly.*

\* \* \* \* \*

**22. Loading the Magazine**

\* \* \* \* \*

*b. To load the magazine using a filler, slide the filler over the top*

\* The addition of the bipod adds much to the stability of the rifle and enables the automatic rifleman to effectively engage targets semiautomatically in excess of 460 meters.

\*\* Enemy squad formations and hasty crew-served weapons emplacements may be effectively engaged up to this range; bunker apertures, windows, and like targets which require precise accuracy can best be engaged by using semiautomatic fire.



rear portion of the magazine (fig. 34.1). Insert a 5-round \* \* \* the magazine filler.

Page 56.

Chart 2. Stoppages: Their Causes and Remedies

Stoppage	Cause	Remedy
Failure to feed -----	Defective or worn parts. * * *	Replace parts. * * *
* * *	* * *	* * *
Failure to lock -----	* * *	* * *
	Weak operating rod spring.	Replace spring.
Failure to fire -----	* * *	* * *
Failure to unlock -----	* * *	* * *
	Insufficient gas.	Tighten gas cylinder plug.
	Spindle valve closed.	Open valve.
* * *	* * *	* * *

### 38. Description

(Superseded)

The types of ammunition are easily identified by their individual markings.

a. *Ball.* The M59 ball cartridge has a boattailed bullet (the rear of the bullet is tapered). The bullet consists of a gliding metal jacket, a steel core, and a lead antimony point and base filler. The M80 ball cartridge bullet consists of a gliding metal or gilding metal clad steel jacket with a lead antimony slug. Ball ammunition is unpainted.

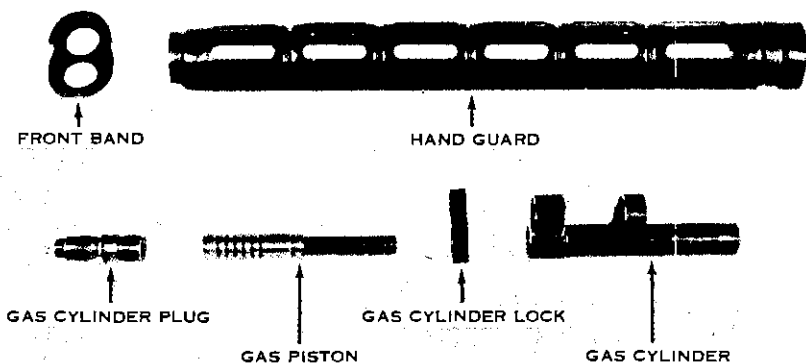


Figure 19. (Superseded) Parts of the gas system, handguard and front band.

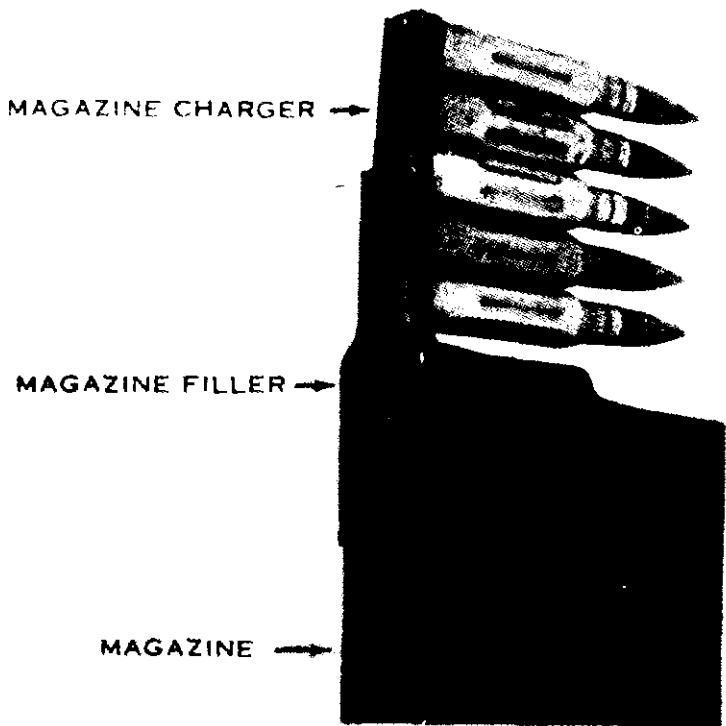


Figure 34.1. (Added) Loading the magazine using a filler.

*b. Armor Piercing.* The armor piercing cartridge has a boat-tailed bullet which consists of a gilding metal clad jacket, a steel core, and a lead antimony base and point filler. The cartridge can be identified by the black bullet tip.

*c. Tracer.* The bullet of a tracer cartridge is boattailed and consists of a gilding metal clad steel jacket, a lead antimony point, a tracer, a subigniter and igniter composition, and a closure cap. The tip is painted orange.

*d. Blank.* This cartridge consists of a primer and propellant in a brass case which is shaped to conform approximately to the configuration of a bulletted combat cartridge. The propellant is held in the cartridge by a wad. The mouth of the cartridge is

sealed with a drop of red lacquer and then crimped to protect against air and moisture.

*e. Dummy.* The dummy cartridge case has six longitudinal corrugations approximately one-third the length of the case. There are no markings on the bullet.

*f. Cartridge, Grenade.* The grenade cartridge has a five petal rose crimp on the mouth of the cartridge case and does not contain a bullet. It is designed for use in the M14 rifle for projecting grenades.

### 39. Ballistic Data

Specific data on 7.62-mm ammunition is contained in FT 7.62-A-2, January 1962. The approximate maximum range and average muzzle velocity of ball ammunition are shown below.

<i>Cartridge</i>	<i>Max range (meters)</i>	<i>Average muzzle velocity (meters per second)</i>
Ball M59	3725	839.7
Ball M80	3549	839.7

## APPENDIX REFERENCES

\* \* \* \* \*

FM 23-5	US Rifle, Caliber .30, M1.
FM 23-15	Browning Automatic Rifle, Caliber .30, M1918A2.
FT 7.62-A-2	Gun, Machine, 7.62-MM, M60 on Mount, Machine Gun, 7.62-MM, M122 and Rifle, 7.62-MM, M14.

\* \* \* \* \*

BY ORDER OF THE SECRETARY OF THE ARMY:

G. H. DECKER,  
*General, United States Army,  
Chief of Staff.*

Official:

J. C. LAMBERT,  
*Major General, United States Army,  
The Adjutant General.*

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NG: None.

USAR: Same as active Army except allowance is one copy to each unit.

For explanation of abbreviations used see AR 320-50.

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FIELD MANUAL

No. 23-8

HEADQUARTERS,  
DEPARTMENT OF THE ARMY  
WASHINGTON 25, D. C., 7 December 1959

**U.S. RIFLE**  
**7.62-MM, M14**

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# CHAPTER 1

## INTRODUCTION

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### 1. Purpose and Scope

a. This manual is a guide for commanders and instructors in presenting instruction and training in the mechanical operation of the M14 rifle. It includes a detailed description of the rifle and its general characteristics; procedures for detailed disassembly and assembly; an explanation of functioning; a discussion of the types of stoppages and the immediate action applied to reduce them; a description of the ammunition used; and instructions on the care, cleaning, and handling of both the weapon and ammunition.

b. Marksmanship training is covered in FM 23-5 and 23-71.

### 2. Importance of Mechanical Training

The rifle is the infantryman's basic weapon. It gives him an individual and powerful capability for combat. To get the most out of his individual combat capability, the infantryman must develop two skills to an equal degree—he must be able to fire his weapon well enough to get hits on battlefield targets and he must know enough about its working parts to keep them operating smoothly so the rifle will never fail him. The infantryman gets his firing skill on known distance and TRAINFIRE ranges and he learns how to keep his rifle working from the mechanical training that is detailed in this manual.

### 3. Description of Rifle

a. The M14 rifle is a 7.62-mm, magazine fed, gas operated, air-cooled, semiautomatic, shoulder type weapon. The front sight is mounted on the flash suppressor. The M14 (fig. 1) is designed primarily for semiautomatic fire, but it can be converted to fire automatic fire by installing a selector.

b. The wide rib on the bottom of the flash suppressor reduces muzzle climb and lessens the amount of dust raised by muzzle blast. There is a lug on the rear of the flash suppressor to accommodate a bayonet and a grenade launcher. The spindle valve (fig. 1) is used when launching a grenade to prevent gas operation of the rifle, thus avoiding possible damage to moving parts and the discharge of unburned powder near the firer's face.