

WAR DEPARTMENT
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TM E9-206A, German 7.9-mm Dual Purpose Machine Gun MG34, is published for the information and guidance of all concerned.

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(For explanation of symbols, see FM 21-6.)

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GERMAN 7.9-MM DUAL PURPOSE MACHINE GUN MG34**Section I****INTRODUCTION**

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1. SCOPE.

a. This manual is published for the information and guidance of the using arms and services. It contains information required by the using arms to identify, operate, disassemble, assemble, and preserve the German 7.9-mm Dual Purpose Machine Gun MG34.

2. CHARACTERISTICS.

a. The German 7.9-mm Dual Purpose Machine Gun MG34 is a recoil-operated, air-cooled weapon capable of delivering single or full automatic fire. The gun is normally fed from 50-round flexible, metal belts, two or more of which can be joined end to end. However, in operations where rapid movement is required, or for antiaircraft fire, a 50-round belt drum magazine or a 75-round spring-operated drum magazine is used. The gun can be identified easily by the recoil booster (fig. 1), perforated barrel casing (fig. 1), grooves for mounting the weapon (fig. 1), front and rear sights (fig. 1), seat for the anti-aircraft sight (fig. 2), hand grip with trigger and safety, dust cover (fig. 2), and fin-shaped butt (fig. 2). It can be used on a bipod (fig. 3), on an antiaircraft tripod (fig. 4), or on a tripod mount (fig. 5).

3. DATA.

Weight of machine gun, with bipod	26 $\frac{3}{4}$ lb
Weight of machine gun, without bipod	24 $\frac{1}{4}$ lb
Weight of barrel	4.44 lb
Over-all length	48 $\frac{1}{4}$ in.
Length of barrel	24 $\frac{1}{2}$ in.
Caliber	(7.9 mm) 0.312 in.
Sight radius	20 $\frac{15}{16}$ in.
Rifling	4 right-hand concentric grooves
Cyclic rate of fire	800 to 900 rounds per min

4. CAUTIONS.

a. All preservative and dirt must be removed from the gun before firing. To do this, disassemble the gun (par. 17) and clean as instructed in paragraph 22.

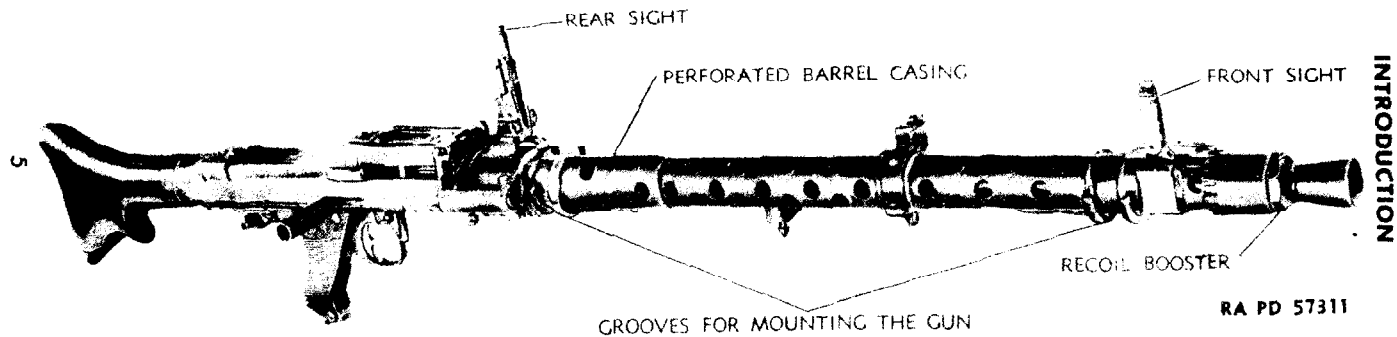
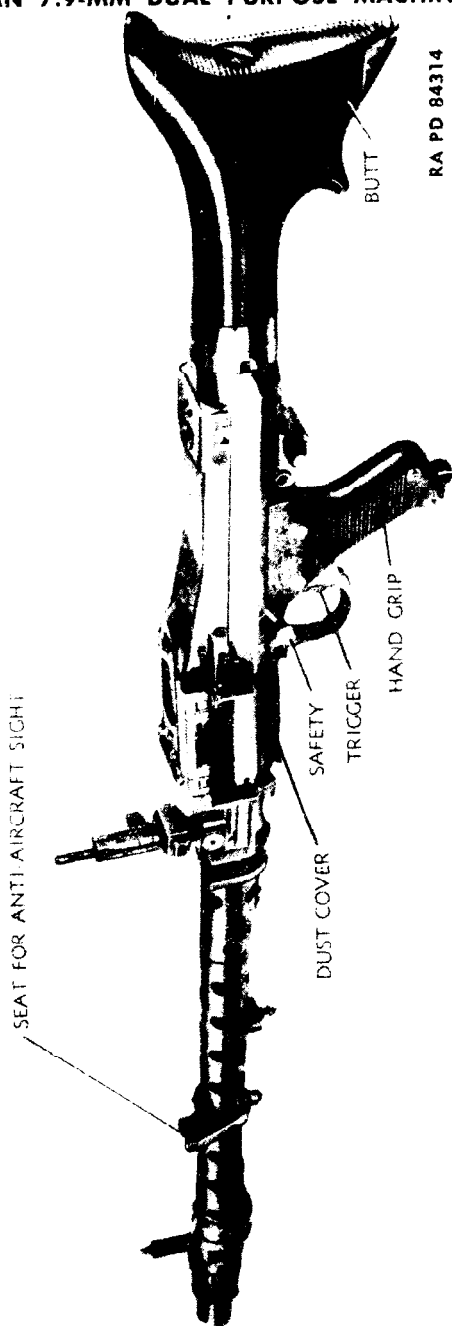


Figure 1 — German 7.9-mm Dual Purpose Machine Gun MG34 — Right Side View

GERMAN 7.9-MM DUAL PURPOSE MACHINE GUN MG34



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Figure 2 — German 7.9-mm Dual Purpose Machine Gun MG34 — Left Side View

INTRODUCTION

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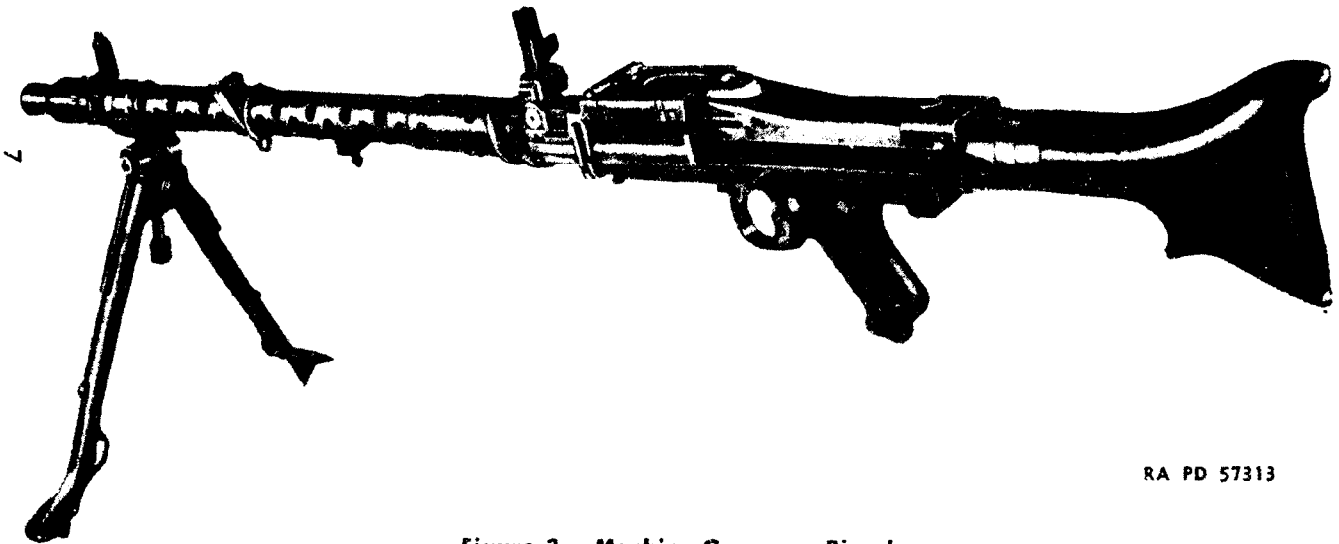


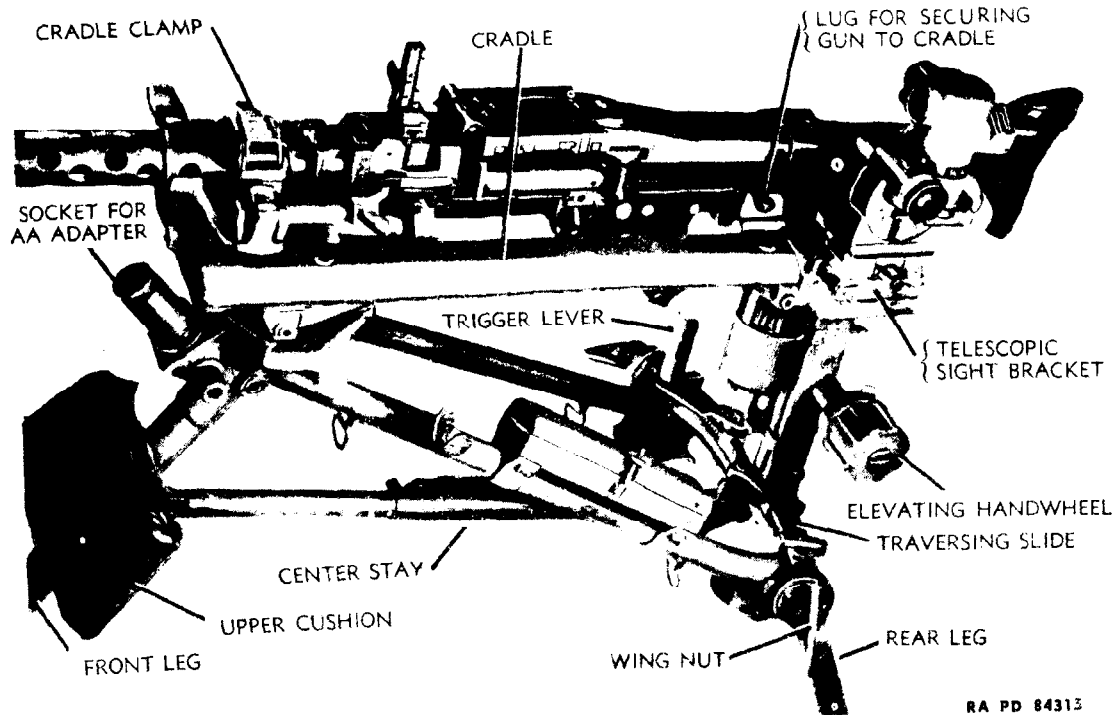
Figure 3 — Machine Gun — on Bipod

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RA PD 57314

Figure 4 — Machine Gun — on Antiaircraft Tripod



RA PD 84313

Figure 5 Machine Gun — on Tripod Mount

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b. Do not attempt to fire this gun with ammunition issued only for United States weapons, as it will damage the gun and injure the operator. Use only enemy ammunition or other ammunition specifically authorized by ordnance personnel (par. 31).

c. Before using any ammunition, make certain the ammunition and belt are clean and free of all traces of sand and dust.

d. The mechanism of the gun is very sensitive to dust or sand. When the gun is not in action, keep the dust cover (fig. 2) on the ejection opening closed.

e. It is dangerous to investigate a feed stoppage or malfunction by raising the feed cover without first cocking the gun or retaining a hold on the cocking handle. Should a live round remain in the chamber, the raising of the feed cover would allow the bolt to continue forward to fire the round, thus causing damage. Should a stoppage occur during firing, cock the gun and move the safety to **SAFE**. Then push the feed cover catch forward, raise the feed cover, and lift out the belt. If the gun cannot be cocked, apply a backward pull on the cocking handle and, at the same time, raise the feed cover and remove the belt. The gun can then be cocked. For further instructions, see section IV.

f. Unload the gun before transporting the gun from one place to another (par. 10).

Section II

OPERATION

	Paragraph
Mounting the machine gun.....	5
Dismounting the machine gun.....	6
Filling the belts and magazines.....	7
Loading the machine gun.....	8
Firing the machine gun.....	9
Unloading the machine gun.....	10
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5. MOUNTING THE MACHINE GUN.

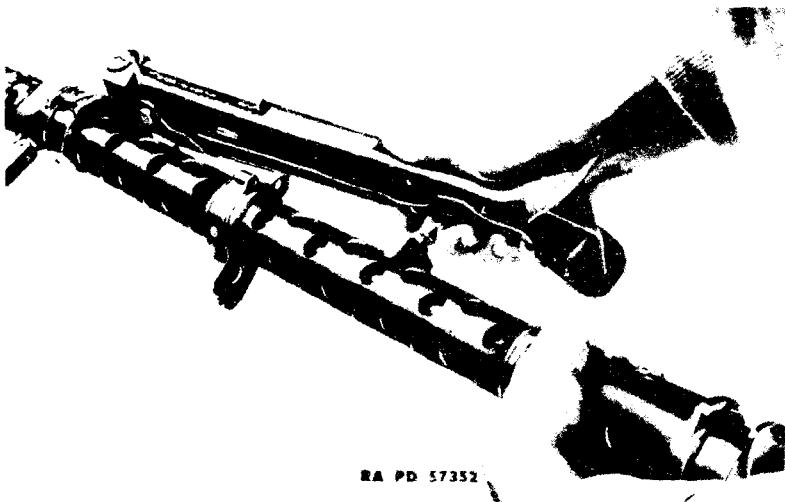
a. **On the Bipod.** Slide the curved head of the bipod into the front mounting guide on the barrel casing. Depress the bipod catch spring on the underside of the casing (fig. 6), and rotate the bipod in the guide until the spring snaps into position. Turn the bipod legs toward the muzzle end and set them on the ground. To adjust the

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RA PD 57321

Figure 6 – Mounting Machine Gun on Bipod



RA PD 57352

Figure 7 – Attaching Bipod Legs to Barrel Casing

spread of the bipod legs, rotate the thumbscrew at the junction of the legs.

NOTE: If the gun is to be carried, collapse the bipod legs, fold

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them backward against the barrel casing, and secure them to the knob on the casing (fig. 7).

b. **On the Antiaircraft Tripod.** Place the machine gun on the tripod so that the curved head on the tripod slides into the rear mounting guide on the barrel casing. Depress the tripod catch spring, and rotate the machine gun until the spring snaps into position (fig. 8). The tripod legs are both hinged and telescopic, to permit large adjustments in the height of the firing position. Smaller adjustments can be made by means of the adjustable support at the top of the tripod.

c. **On the Tripod Mount.**

(1) If the tripod mount is folded, it should be unfolded and erected as follows:

(a) Release the clamping lever on the front leg, extend the front leg to the required position, and then lock the clamping lever.

(b) Loosen the wing nuts on the rear legs, and push the rear legs back. Raise the mount the required height and tighten the wing nuts.

(c) With one hand, grasp the handle; with the other hand, grasp the cradle. Push the press lever forward and raise the cradle, drawing the elevating gear smartly back (fig. 9) until it stands erect and engages the upper part of the mount.

(d) Adjust the legs, so that the cradle is horizontal when the elevating gear is adjusted to its old position. The machine gun can now be mounted on the mount.

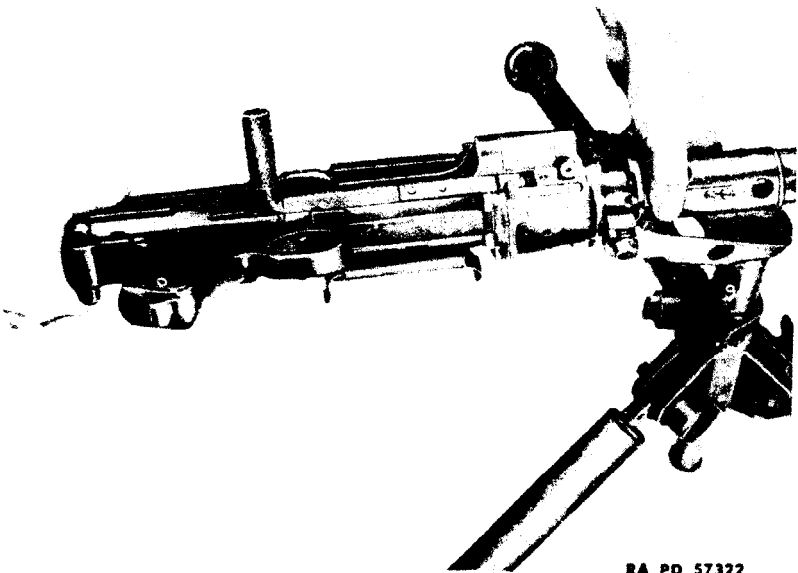


Figure 8 — Mounting Machine Gun on Antiaircraft Tripod

OPERATION

(2) Place the machine gun (muzzle end up) on the mount, so that the projections on each side of the gun fit into the claws on the cradle (fig. 10). Lower the front part of the gun on the cradle and secure it by means of the hinge clamp.

d. **On Antiaircraft Adapter of Tripod Mount.** For antiaircraft fire from the tripod mount, an adapter is secured in the short tube near the swivel (fig. 5). The adapter is similar to the adjustable support at the top of the tripod. The gun is mounted on the adapter as on the tripod. The cradle must be folded when the adapter is used and the adapter should be in a vertical position.

6. DISMOUNTING THE MACHINE GUN.

a. To dismount the machine gun, proceed in the reverse order of mounting (par. 5).

7. FILLING THE BELTS AND MAGAZINES.

a. Belts.

(1) Place a 50-round leading belt on a flat surface, with the leading tab to the right and the tongues up. Insert a round into each link, and push it forward until the tongue snaps into the groove at the rear of the cartridge case (fig. 11).

NOTE: Do not insert a round into the first link. This link is short and has no tongue (fig. 11).

(2) The 50-round leading belt can be extended by joining it to 50-round extension belts. Fill a 50-round extension belt, but do not fill the first link having the rectangular opening (fig. 11). Insert the tongue at the end of the leading belt into the rectangular opening in the first link of the extension belt, and join belts by inserting a round (fig. 11). It is common practice to join as many as four extension belts to a 50-round leading belt.

(3) Instead of a 50-round leading belt, it is possible to join five 50-round extension belts to a short leading belt (fig. 12).

(4) If a short leading belt is not available, an extension belt (or belts) can still be used. However, when loading the belt, do not insert rounds in first three links.

b. 50-round Belt Drum Magazine.

(1) Fill an extension belt and turn it over with tongues on bottom and empty link to the right. Roll up the belt from the left end and insert it into the belt drum magazine with the empty link on the outside (① fig. 13).

(2) If the magazine is to be used immediately or within a short time, fill a short leading belt and attach it (② fig. 13). If the magazine is not to be used for some time, do not join a short leading belt. Instead, close the magazine slide and the cover, to keep dust out.

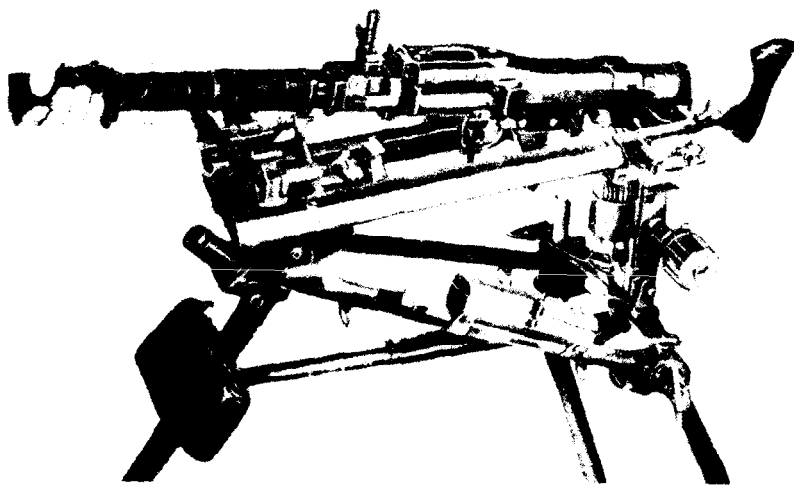
(3) The magazines are transported in carriers shown in figure 14.

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Figure 9 — Raising Cradle of Tripod Mount



RA PD 57323

Figure 10 — Mounting the Machine Gun on the Tripod Mount

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c. **Spring-operated 75-round Drum Magazine.** Apply tension to the magazine springs by turning the two tensioning ratchets on the magazine (fig. 27). Use an enemy tool (if available) or an improvised tool. Then, place the magazine with the mouth up and insert one round after another (fig. 15) until the magazine is filled.

8. LOADING THE MACHINE GUN.

a. **General.** Belt feed can be employed when the gun is mounted on the bipod, antiaircraft tripod, tripod mount, or tripod mount attachment. The 50-round belt drum magazine, and the 75-round spring-operated drum magazine, can be employed when the gun is mounted on the bipod, antiaircraft tripod, or tripod mount attachment, but not on the tripod mount.

b. Loading the Machine Gun With the Belt.

(1) If the bolt is fully home (in most forward position), press the safety lever (fig. 16), and move the safety forward to uncover the letter "F" (fig. 17). If the bolt is retracted, grasp the cocking handle, and, at the same time, pull the trigger, allowing the bolt to go slowly home. Set the safety at FIRE (move it forward to uncover letter "F").

(2) Push the feed cover catch forward and open the feed cover (fig. 18).

(3) Place the loaded belt on the feed block, so that the first round is on the slot of the feed block, and the leading tab is to the right (fig. 19).

(Text continued on page 21.)

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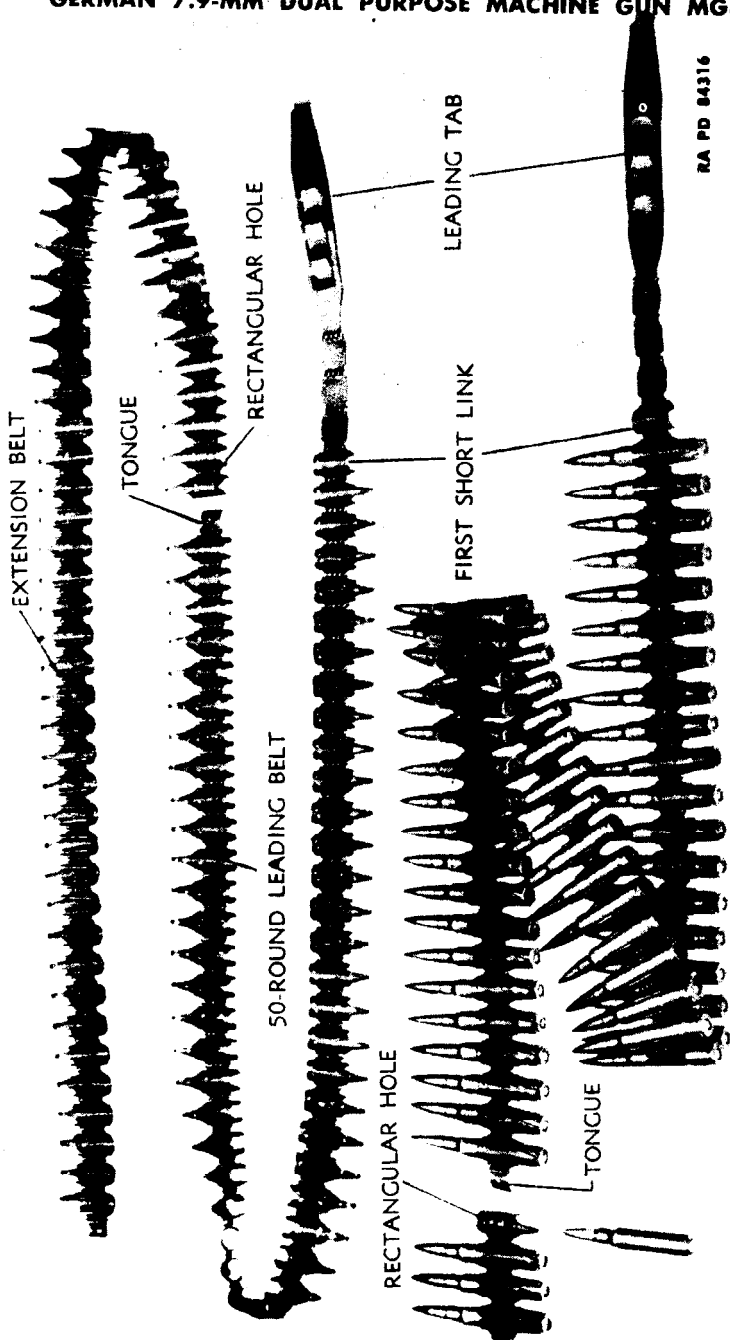


Figure 11 — Loading and Joining of Extension Belt and Leading Belt

OPERATION

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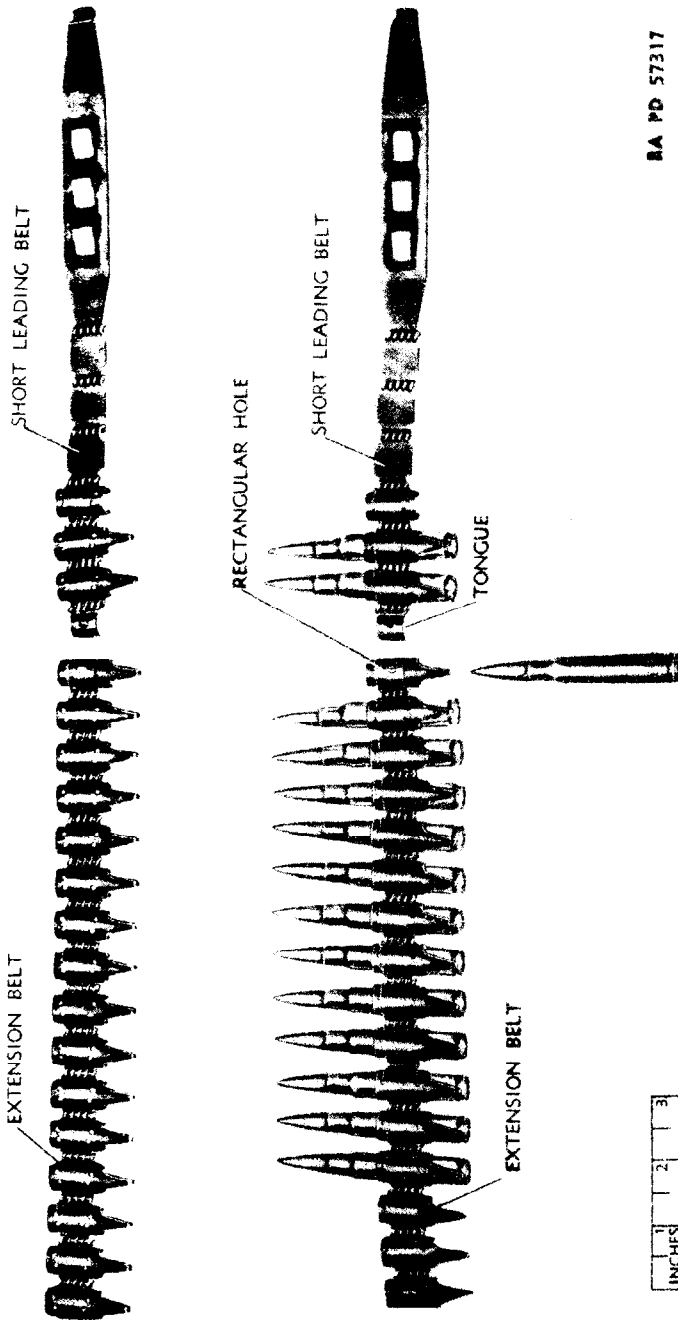


Figure 12 — Loading and Joining of Extension Belt and Short Leading Belt

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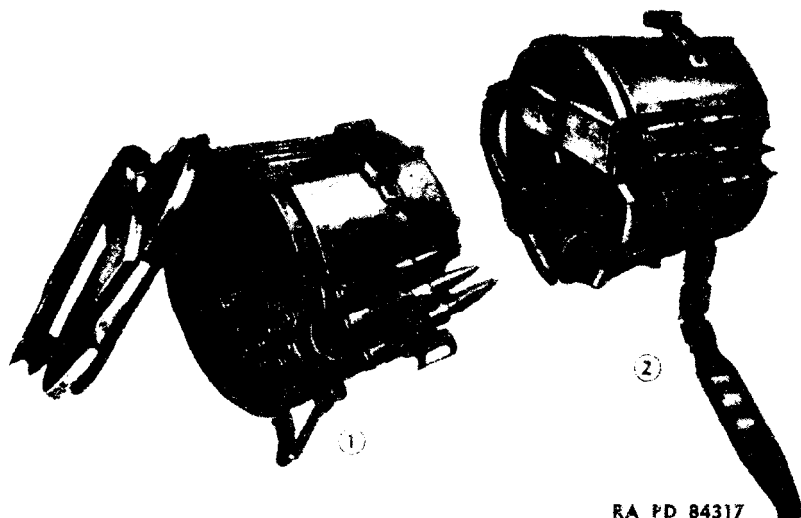


Figure 13 -- Loading a Belt Drum Magazine

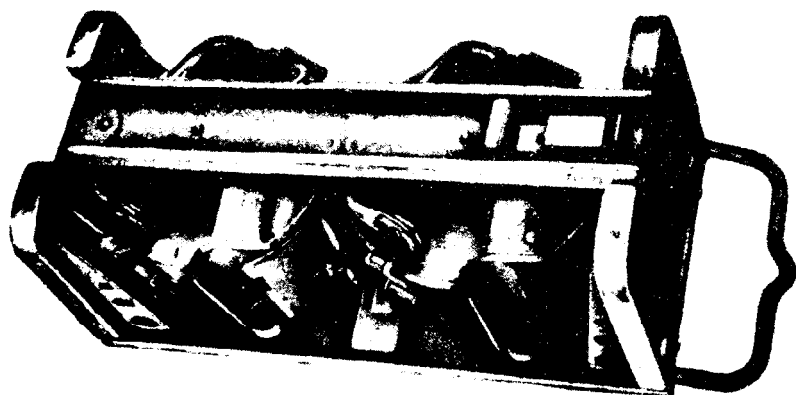
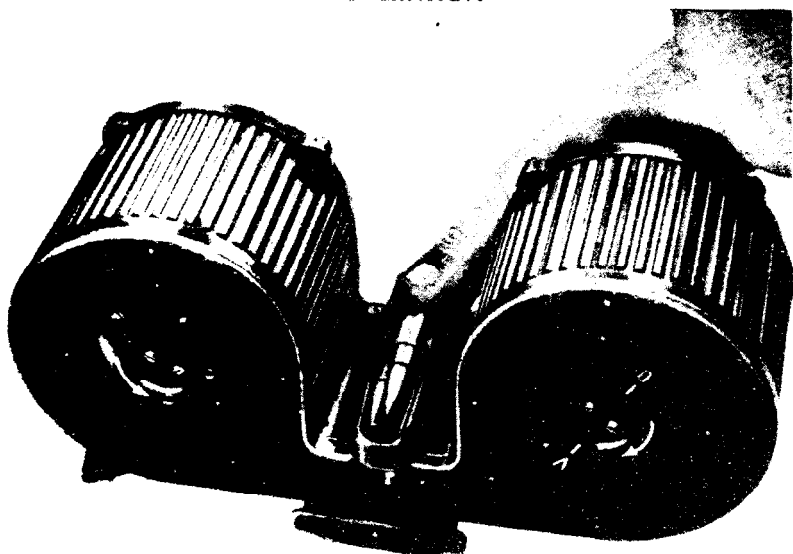


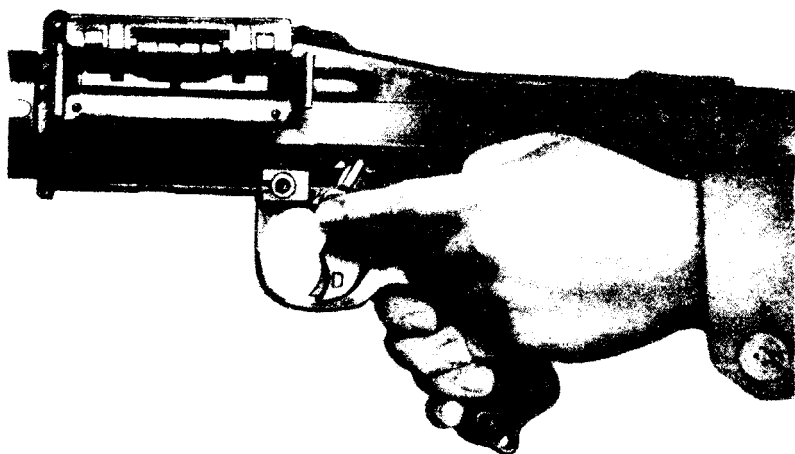
Figure 14 -- Belt Drum Magazines in Carriers

OPERATION



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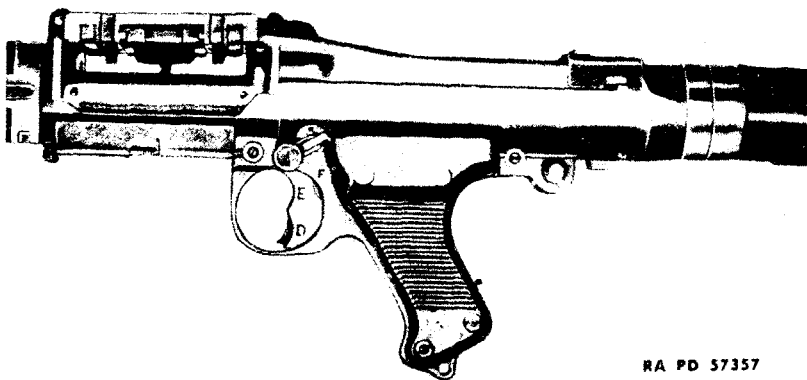
Figure 15 — Loading 75-round Magazine



RA PD 37341

Figure 16 — Adjustment of Safety

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RA PD 57357

Figure 17 — Safety at Fire — Letter "F," Uncovered



RA PD 84318

Figure 18 — Opening Feed Cover

OPERATION

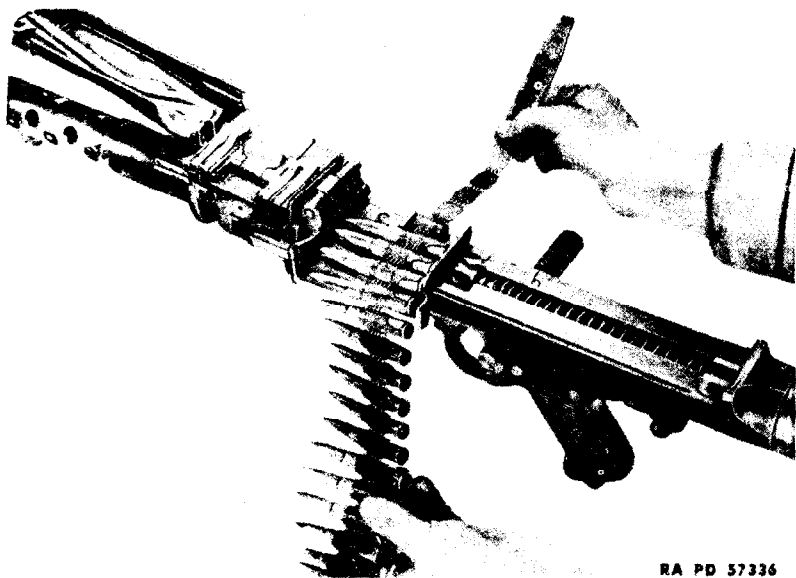


Figure 19 — Positioning Belt on Feed Block

(4) Close the feed cover, making certain that the three pawls on the underside of feed cover engage the first round (fig. 20), that is, the three pawls are between the first and second rounds.

(5) After the operator has become proficient in loading the gun, he may keep the feed cover closed while loading. In that case, make certain the bolt is fully home and the safety at **FIRE** (letter "F" uncovered). Then, insert the leading tab into the feed opening on the left side of the gun, and pull it to the right until the three pawls on the underside of the feed cover engage the first round (fig. 21).

NOTE: In case of right-hand feed, the leading tab is inserted into the feed opening on the right side of the gun.

c. **Loading the Machine Gun With a 50-round Belt Drum Magazine.** See that the bolt is fully home and the safety set at **FIRE** (move safety forward to uncover letter "F," (fig. 17)). Take a fully loaded belt drum magazine (② fig. 13) and insert the leading tab into the feed opening on the left side of the gun. Attach the magazine to the front hook on the feed block (fig. 22), press the latch on the magazine, and secure it to the rear hook on the feed block. Pull the

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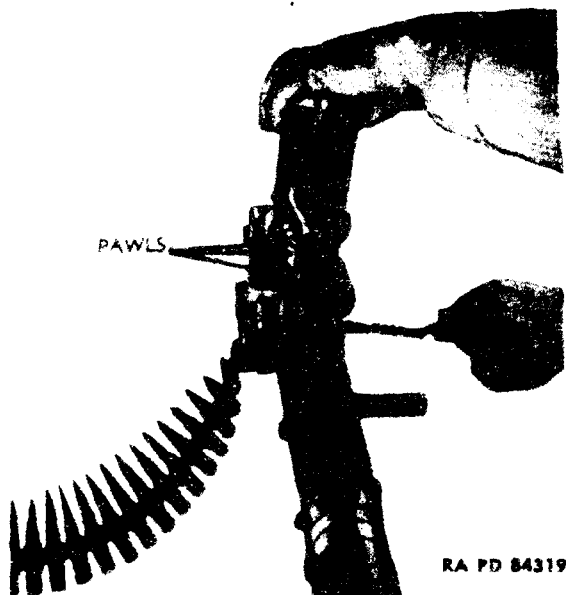


Figure 20 -- Closing of Feed Cover

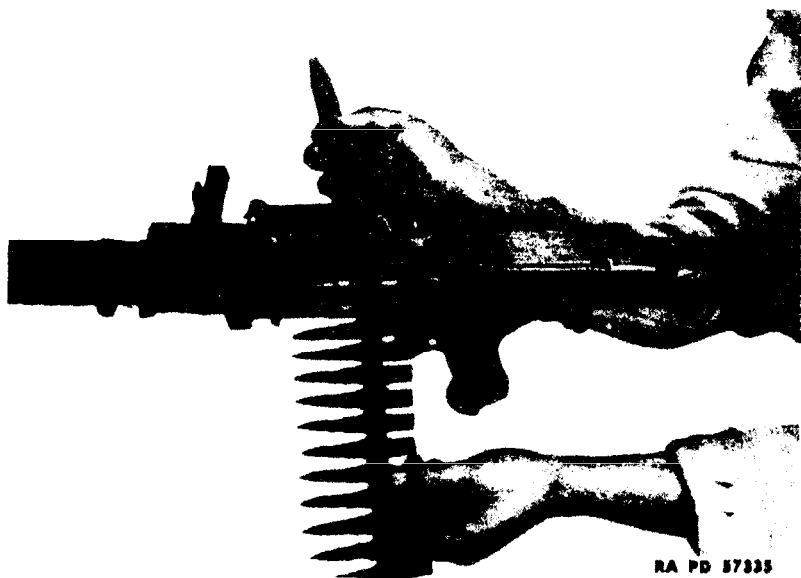


Figure 21 -- Loading Machine Gun with Belt

OPERATION

leading tab to the right until the three pawls on the underside of the feed cover engage the first round.

d. Loading the Machine Gun With a 75-round Spring-operated Drum Magazine.

(1) To load the machine gun with the 75-round magazine, it is necessary to remove the feed cover and feed block, and to replace these with the magazine holder. To facilitate identification, the feed cover and magazine holder are compared in figures 23 and 24.

(2) See that the bolt is fully home and the safety set at FIRE (move safety forward to uncover letter "F," (fig. 17)). Push the feed cover catch forward and raise the feed cover (fig. 18). Press the feed cover axis pin to the left and remove the feed cover (fig. 25).

(3) Remove the feed block (fig. 26). Press the feed cover axis pin to the left and replace with the magazine holder.

(4) Place a full 75-round magazine on the magazine holder, front end down, and press it down until the latch on the holder snaps into position (fig. 27).

9. FIRING THE MACHINE GUN.

a. General. Before carrying out the following instructions, make certain that the machine gun has been loaded with a belt or magazine, and the safety set at FIRE (move safety forward to uncover letter "F," (fig. 17)).

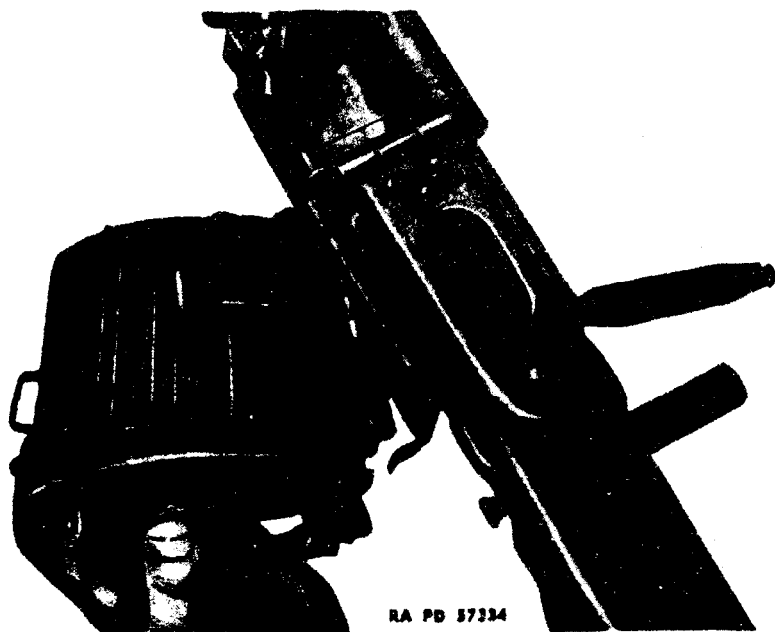


Figure 22 — Mounting Belt Drum Magazine

GERMAN 7.9-MM DUAL PURPOSE MACHINE GUN MG34**b. Firing Gun on Bipod, Antiaircraft Tripod, or Tripod Mount Attachment.**

(1) With one hand, grasp the cocking handle in its most forward position (fig. 28) and retract it until the bolt is cocked (fig. 29). Then push the cocking handle forward as far as it will go (fig. 30).

(2) **SINGLE FIRE.** For single fire, pull the upper part of the trigger marked with the letter "E" (fig. 17) and release it immediately. It is necessary to pull the trigger for every shot to be fired. During lulls in firing, the safety should be kept at **SAFE**. This is done by pressing the safety lever (fig. 16) and moving the safety to the rear to uncover the letter "S" (fig. 31).

(3) **AUTOMATIC FIRE.** For automatic fire, pull the lower part of the trigger marked with the letter "D" (fig. 17). The machine gun will deliver automatic fire as long as the trigger is pulled and ammunition is being fed into the gun. Between bursts, set the safety at **SAFE** (move it to the rear to uncover letter "S" (fig. 31)).

c. Firing the Gun on the Tripod Mount.

(1) Grasp the cocking handle in its most forward position (fig. 28) and retract it until the bolt is cocked (fig. 29). Then push the cocking handle forward as far as it will go (fig. 30).

(2) **SINGLE FIRE.** For single fire, push up the trigger finger on the mount (fig. 32). Then pull the trigger handle on the mount (fig. 33) and release it. The handle must be pulled for each shot to be fired. During lulls in firing, set the safety at **SAFE** (move it to rear to uncover letter "S" (fig. 31)).

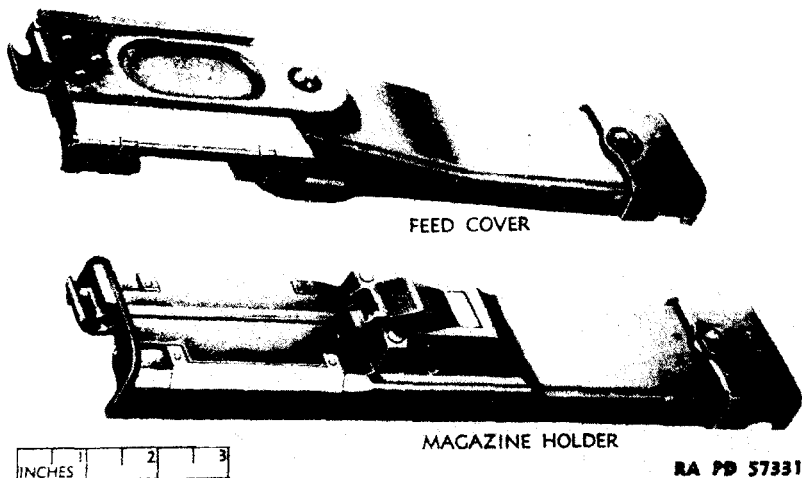


Figure 23 — Feed Cover and Magazine Holder — Top View

OPERATION

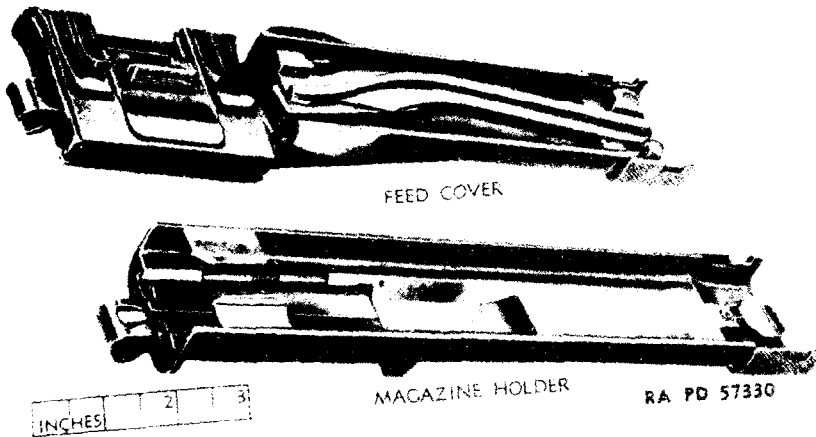


Figure 24 – Feed Cover and Magazine Holder – Bottom View



Figure 25 – Removal of Feed Cover

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(3) **AUTOMATIC FIRE.** Push the trigger finger on the mount down (fig. 34), then pull the trigger handle. The machine gun will continue to deliver automatic fire as long as the handle is pulled and ammunition is fed into the gun. Between bursts, set the safety at **SAFE** (move it to rear to uncover letter "S" (fig. 31)).

(4) **ELEVATION AND TRAVERSE.**

(a) The front end of the cradle is carried on a swivel mounting at the junction of the three tripod legs, while the rear end is supported by the elevating gear. The front leg is telescopically adjustable, and is provided with a clamping lever for fixing the telescopic parts after they have been adjusted. A traversing arc, on which the elevating gear is carried by a traversing slide, acts as a brace between the two rear legs which are jointed, each joint being fitted with a clamping wing nut. An adjustable center stay provided with a clamping lever is connected between the traversing arc and the front leg.



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Figure 26 — Removal of Feed Block

OPERATION

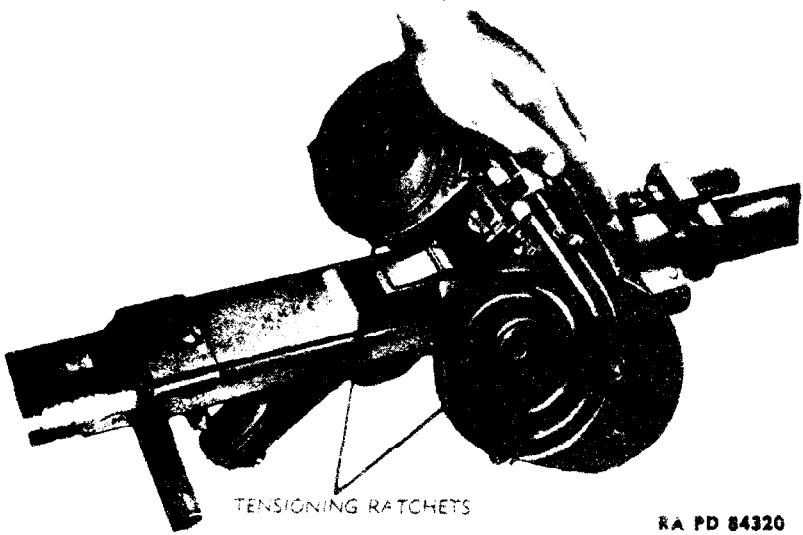


Figure 27 — Mounting of 75-round Magazine



Figure 28 — Cocking Handle in Most Forward Position — Bolt Fully Home

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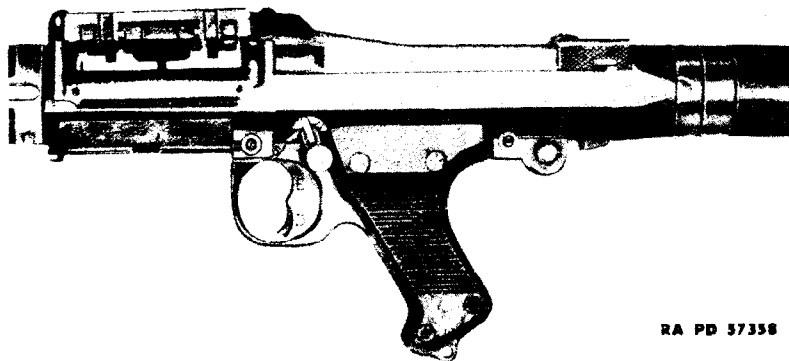
Figure 29 — Cocking Handle in Rearmost Position — Gun Cocked



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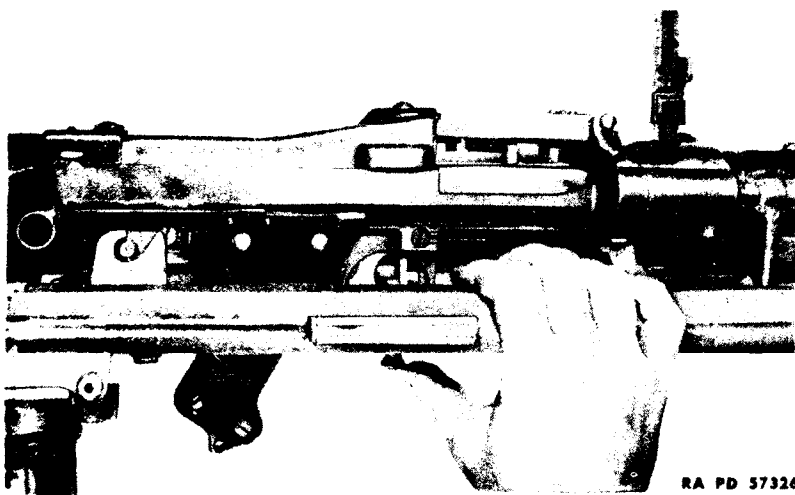
Figure 30 — Cocking Handle in Forward Position — Gun Cocked

OPERATION



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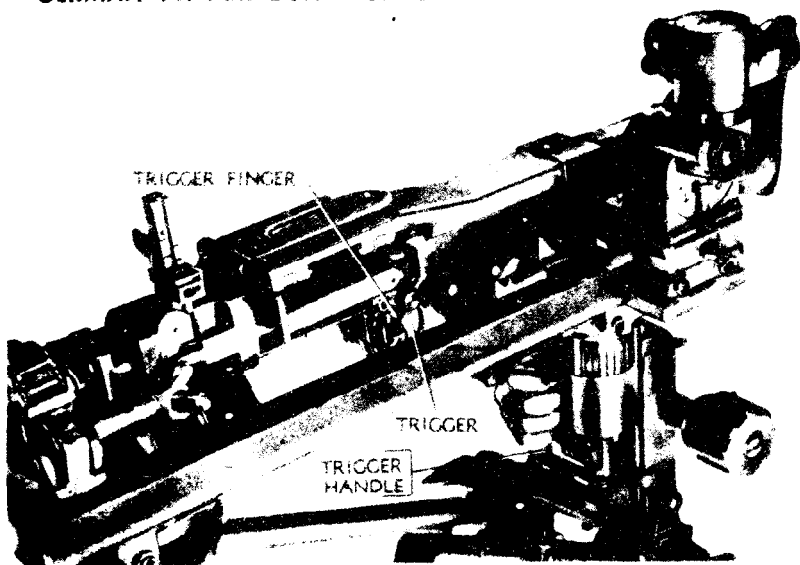
Figure 31 – Safety at Safe – Letter "S," Uncovered



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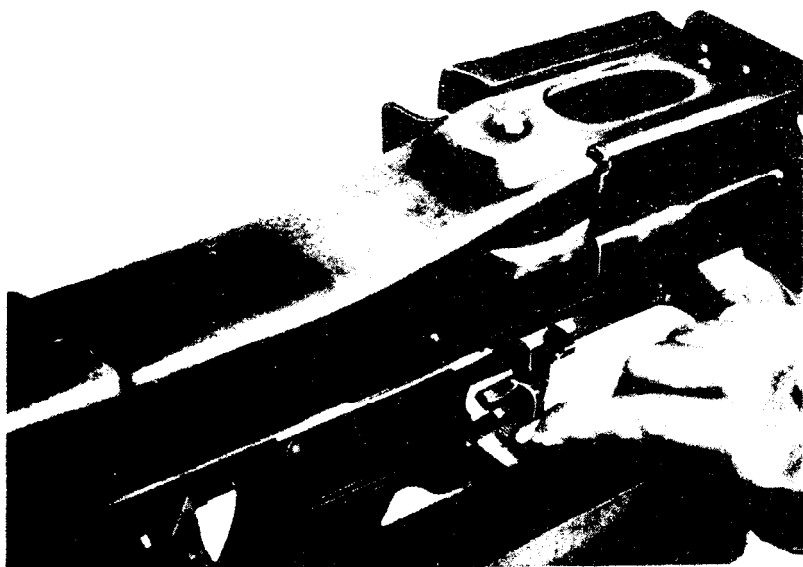
Figure 32 – Adjustment of Trigger Finger for Single Fire

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RA PD 57327

Figure 33 – Firing of Machine Gun



RA PG 57325

Figure 34 – Adjustment of Trigger Finger for Automatic Fire

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(b) Elevation is adjusted by a handwheel on the left of the elevating gear, while adjustments for line are made by shifting the traversing slide along the traversing arc by means of a handle on the right, in which an oil bottle is fitted. A wing nut is provided for clamping the elevating gear and a clamping lever for locking the traversing slide. Adjustable elevating and traversing stops are also provided to enable the gun to be elevated and traversed between predetermined limits. The traversing stops are arranged for the traversing arc, which is graduated to facilitate adjustment of the stops (fig. 36).

(c) In front of the elevating gear is an automatic searching fire device, operated by the recoil of the gun in the cradle, which causes a projection on the cradle slide to strike a roller on the device. Actuated in this manner, the device alternately elevates the cradle step by step, and depresses it similarly each time a shot is fired. The limits of the searching fire, and consequently the distance on the ground covered by it, can be increased or reduced by means of a graduated setting ring (fig. 36).

d. Metric and English Units.

(1) The divisions on the rear sight in meters and yards are shown in figure 35.

(2) The Overhead Firing Table and Table of Minimum Clearance are shown in figure 36 (ranges given in meters) and in figure 37 (ranges given in yards).

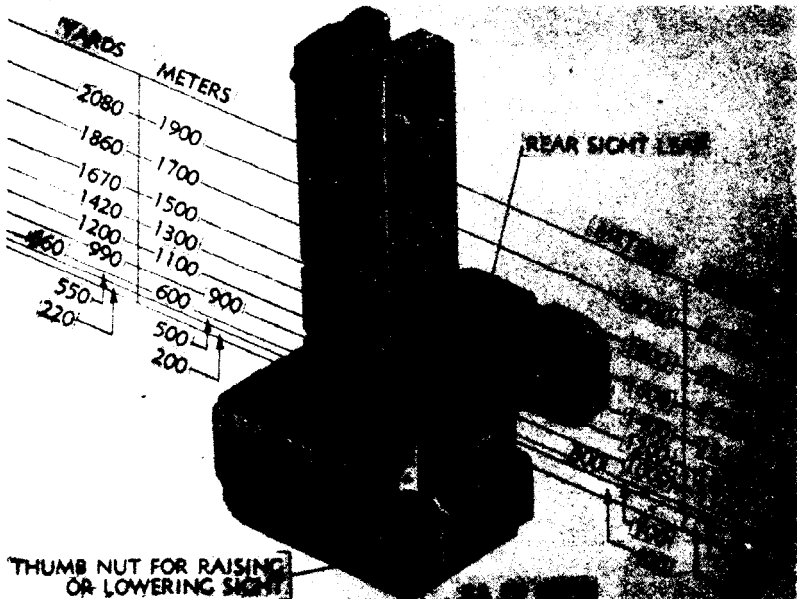


Figure 35 — Rear Sight — Meters and Yards