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UNION OF SOUTH AFRICA



# Small Arms Training

## Volume I, Pamphlet No. 4

# Light Machine Gun

### 1942

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## GENERAL NOTES

### The Object of Weapon Training

1. The sole object of weapon training is to teach all ranks the most efficient way of handling their weapons in order to kill the enemy. Instructors will always bear this fact in mind, and will continually impress it upon those whom they instruct.

### General Description

2. This pamphlet deals primarily with the Mark I Bren. Any differences in the Mark II are dealt with in the lessons concerned.

3. Weight of gun complete with bipod	...	...	23 lb.
Weight of spare barrel	...	...	6 "
Weight of tripod	...	...	26½ "
Traverse given by arc	...	...	38°
Elevation by elevating gear	...	...	19°

Beaten Zone :—

Range.	Bipod.
500 yards.	175 × 2 yards.
1,000 "	115 × 4 "

The Mark II Bren (*see* Fig. 20) approximates to the above figures.

### Characteristics of the Bren L.M.G.

4. The chief characteristic of the weapon is its power of delivering a volume of fire with the employment of few men. When fired from the bipod, the effective range is 1,000 yards. When fired from the tripod, given perfect conditions of visibility, this distance may be increased.

5. It is an air-cooled weapon, capable of a high rate of fire (automatic or single rounds), and is fired either shoulder-controlled from a bipod, or from a tripod. To avoid overheating, strain and excessive expenditure of ammunition and at the same time to produce the necessary volume of fire as well as to maintain accuracy, it is best, in employing automatic, to fire in bursts of four or five rounds. When the target permits, single shot firing should be used so as to conserve ammunition. By means of single shots, very accurate shooting is possible.



The accuracy of the gun permits of only a small margin of error in aiming, range estimation, or wind. Accurate observation of fire is, therefore, essential; if less than four or five rounds are fired in a burst, observation will be possible only in the most favourable circumstances.

### System of training

6. To ensure that the section will fulfil its role in war, the personnel must be trained so that each individual is capable of performing the following duties concerned with the handling of the gun :—

- i. To prepare the gun for firing and maintain it in action.
- ii. To carry the gun and get it quickly into action on any type of ground.
- iii. To fire accurately at various rates up to 112 rounds a minute according to the requirements of various types of targets likely to be encountered in battle.
- iv. To observe fire and correct its application accordingly.
- v. To assist forward movement by fire while at the same time ensuring that such fire does not endanger his own troops.
- vi. To fire with effect at low-flying aircraft.
- vii. To perform the duties assigned to any member of the section.

7. In this pamphlet, solely to make training easy, members of a section are sometimes referred to by "numbers." Every man in a section, however, must be an efficient shot with the L.M.G., and in addition be able to carry out every duty that will maintain the gun in action under all conditions. All men, in fact, will be interchangeable so far as duties with the L.M.G. are concerned.

### Recruit instruction

8. The principles of instruction laid down in Pamphlet No. 1 of this series will be followed during instruction in the L.M.G. In addition, the following points will be observed :—

- i. Battle order will be worn for all lessons except those contained in Chapter 2.
- ii. The squad should normally be on the left of the gun to watch demonstrations, but they may be moved to the right if necessary.

iii. Practice should be arranged in such a way as to ensure that no time is wasted. This can be done by each individual carrying out a cycle of actions which leaves the gun ready for the next man. Those not actually handling the gun will be constantly questioned so that interest may be maintained. A further demonstration should be given when it is apparent that a point is not clear.

iv. Instructors must appreciate that, while the lessons are designed to be taught in one period, more time will be necessary for practice and revision to obtain efficiency.

9. Instruction in this weapon should be preceded by a demonstration of the weapon's capabilities using live ammunition on the range. This will arouse the recruit's interest and make him eager to learn how to handle the Bren himself.

10. When exercising recruits in their later stage of training or trained soldiers all the lessons in Chapters 2 and 3 should be done on rough ground.

### Trained soldier instruction

11. Once men have been trained in the elementary lessons of the Bren L.M.G. it is wrong to repeat these lessons continually under easy conditions. There must be progression. Trained soldiers will therefore be exercised in the more advanced lessons of Chapter 4. During these lessons great care must be taken to ensure that the details learned in the earlier lessons are applied correctly. Special stress will be laid on training on different types of ground and firing from awkward positions. The correct handling of the Bren must be conscientiously practised on all tactical exercises. During Lessons 15 and 16 live ammunition should be fired by all trained soldiers in the advanced stage of training. The enemy should also be provided with live ammunition to fire near anyone making obvious errors of over exposure. (See S.A.T., Vol. I, Pamphlet No. 1, Sec. 17.)

### Safety precautions

12. Before all lessons the gun, magazines, drill cartridges and pouch equipment will be inspected by the instructor.

### Improvisation

13. When drill cartridges are not available a halfpenny will make a good magazine platform depressor.

For improvised cover, targets, aiming discs, see S.A.T. Vol. I, Pamphlet 3, General Notes.



## CHAPTER I

## HOLDING, AIMING, AND FIRING

The importance of correct holding of the gun will be impressed on the soldier from the start, but efficiency cannot be obtained until ball ammunition is fired. Instruction in correct holding cannot, however, be delayed until this period of training, and any tendency to loose holding even during the most elementary instruction must at all times be checked; otherwise failure in marksmanship will result.

## LESSON 1.—MAGAZINE FILLING, LOADING, UNLOADING, AND SIGHT SETTING

*Instructor's notes*

*Stores.*—Gun, magazines, drill cartridges, utility pouches.

*Note.*—In using drill cartridges in the Bren L.M.G. it is essential to ensure that the gun has been cleared before the ejection opening cover is closed. If the cover is closed and a drill cartridge is left in the breech, when the gun is reloaded the round does not fall through the ejection opening, and as the breech-block moves forward when the trigger is pressed the round is pushed forward into the well at the front end of the slide, and the ejection opening cover jams over it and the gun is put out of action. Should a gun become jammed in this manner, it should be taken to the armourer to be cleared.

If it is known or suspected that a round has been left in the breech, the ejection opening cover must be opened before the cocking handle is pulled back; otherwise the gun may be damaged.

This trouble cannot occur with live ammunition.

If drill cartridges are not available, magazine filling can be taught and practised with empty cases.

## 1. Magazine filling (see Fig. 1).

Explain and demonstrate:—

- i. Hold the magazine in one hand and place each round well back between the lips with the base towards the projections of the magazine platform. Press down and push forward with the thumb. Continue until 28 rounds are filled, ensuring that they are not rim behind rim and the ammunition is clean.

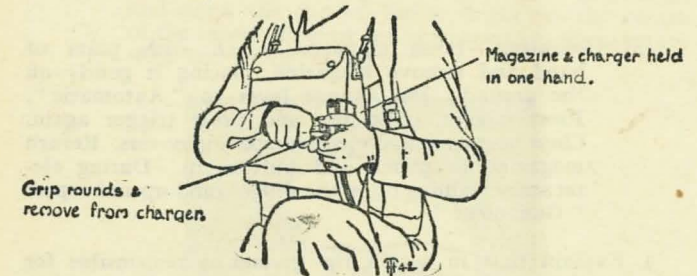
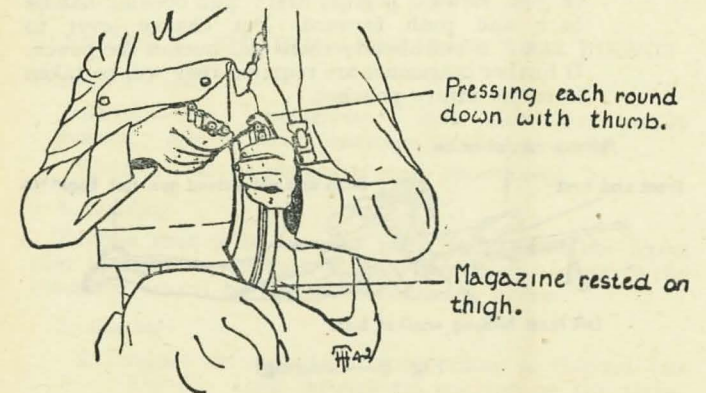


Fig. 1

- ii. Empty the magazine by pushing each round out with the point of a bullet.

## 2. Practise squad.

## 3. Loading and unloading

Explain and demonstrate:—

- i. Lie down with body straight behind gun, legs together. Left hand holds small of butt with over-hand grip; right hand holds pistol grip with first finger outside trigger guard. The position of the change lever is immaterial.
- ii. *Loading.*—Open magazine opening cover; take magazine from pouch equipment, inspect magazine to see that rounds are correctly positioned and place



on gun, forward portion first; pull cocking handle back and push forward. Put change lever to "Safe" if not already there and button the pouch. If further magazines are required they will be taken from the utility pouches.

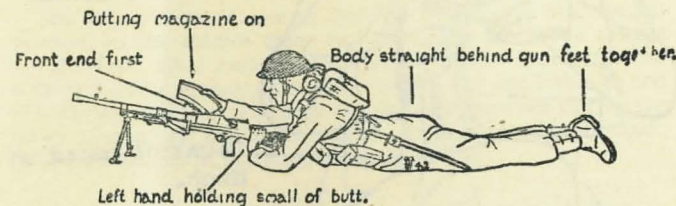


Fig. 2.—Loading.

iii. *Unloading.*—Press magazine catch with palm of hand and remove magazine, placing it gently on the ground. Put change lever to "Automatic". Press trigger, cock gun and press trigger again. Close magazine and ejection opening covers. Return magazine to pouch and button up. During elementary training or on the range stand up and report "Gun clear".

4. Explain that in action the gunner is responsible for keeping the gun loaded with a full or nearly full magazine. If any orders are not understood he will call out "Repeat".

5. Practise squad.

6. *Sight-setting.*—Describe backsight drum and backsight. Turn backsight drum until range required appears in the window. The drum gives a maximum elevation of 2,000 yards, and a minimum of 200 yards. Each click gives an alteration of 50 yards. When the gun is unloaded the sights will always be lowered.

*Note.*—For Mark II Bren raise backsight leaf, adjust to range required, leaving the leaf upright. When not in use lower the leaf. The sight is graduated from 200 yards to 1,800 yards.

7. Practise squad in loading, sight setting and unloading by word of command.

## LESSON 2.—HOLDING, AIMING, AND FIRING

### *Instructor's notes*

*Stores.*—Gun; magazines; drill cartridges; utility pouches; aiming disc; landscape target if necessary.

*Holding must be checked at every opportunity.*

### 1. Holding

Explain that it is essential when firing from the bipod that the gun should be held firmly in order to control the vibration caused by the gun's automatic action.

### 2. Aiming

i. Explain the rule for aiming, using a diagram (see Fig. 3). Look through the aperture at the target and align the top of the foresight on the centre of the target, keeping the aim central in the aperture with the sights upright.

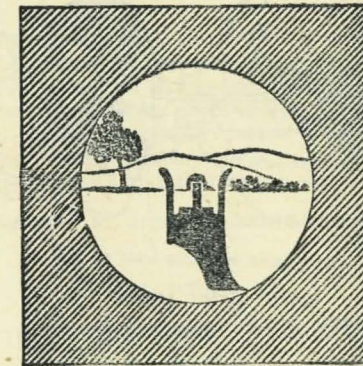
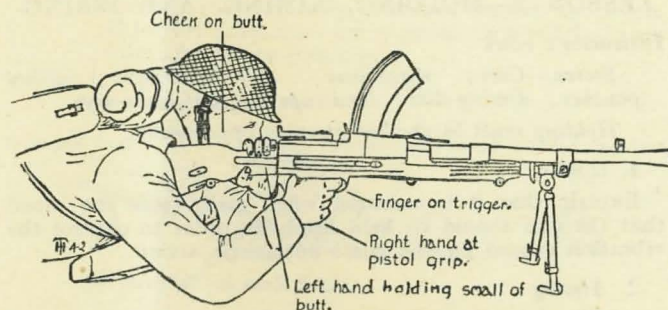


Fig. 3.—Correct aim.

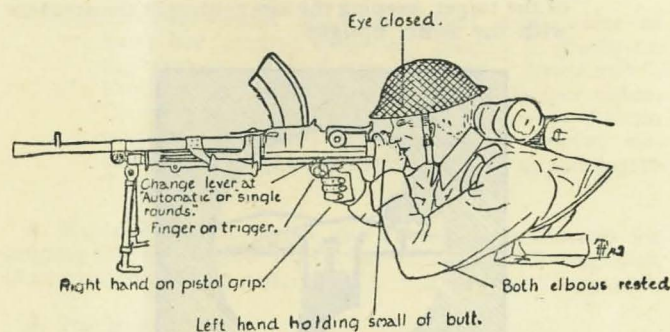
ii. *Aiming position.*—Explain and demonstrate with gun loaded:—

Put change lever to "A" or "R", raise butt and move shoulder forward to meet it. Put forefinger on trigger and grip gun firmly with both hands, pulling downward and backward into the shoulder. The cheek should rest lightly on the butt (see Fig. 4). The bipod legs can be adjusted for height if necessary. (This is not possible with the Mark II bipod.) "Unload".





Right side view.



Left side view.

Fig. 4.—Holding and Aiming.

### 3. Practise squad at aiming disc (no magazine on gun).

### 4. Trigger pressing

Explain that the trigger has only one pressure, which is shorter for "Automatic" than for "Single rounds". It must be taken by a squeezing action of the whole hand round the pistol grip. If firing "Automatic" it must be pressed long enough to fire a burst of four or five rounds. If firing "Single rounds" it must be fully released after each shot.

### 5. Firing

Explain and demonstrate with gun loaded:—

As single rounds are normal the change lever will be put

to "R." If, however, the order is "Bursts" the lever will be put to "A".

The sequence of firing is:—

Aim, fire, observe with minimum head movement, correct elevation or point of aim, if necessary, re-aim.

The rules for aiming off for side winds and aiming down as taught with the rifle must be applied with the L.M.G.

### 6. Practise squad.

### 7. Rates of fire and moving enemy

Explain:—

- i. *Slow*.—About one magazine per minute. Correct holding must be maintained throughout each burst.
- ii. *Single rounds*.—Up to one magazine per minute. Each shot must be well aimed and fired.
- iii. *Rapid fire*.—Four magazines per minute. Bursts of normal length, but minimum intervals between to allow observation and correction. Accuracy must be maintained.

The above are standards which can be reached with practice.

- iv. *Moving enemy*.—It is not possible to swing with the L.M.G. when mounted on the bipod and, therefore, a point ahead of the enemy will be chosen and fire opened just before he closes to the estimated lead. This must be quickly repeated, each burst consisting of eight to ten rounds. Correct holding must be maintained and the elbows must not be moved.

### 8. Practise squad in complete lesson.

## CHAPTER II

### STRIPPING, CLEANING, AND MECHANISM

1. In the following lessons the instructor will explain and demonstrate the stripping and assembling of each group. The parts will be named and the squad frequently questioned about them.

2. After stripping and assembling, the correct functioning of the parts will be tested by cocking the gun and pressing the trigger. Excessive stripping causes undue wear to the various parts of the gun and lessens its efficient functioning. Therefore, stripping, other than that required for efficient instruction and necessary cleaning, will be avoided. Stripping and assembling against the clock will never be practised.



3. All cleaning should be carried out under the supervision of an N.C.O. unless the men are trained soldiers.

4. During extremes of cold, the following should be noted :—

Injurious factors—

- i. Ice.
- ii. Frozen oil or grease.
- iii. Snow.

Counter-measures—

*Ice.*—Keep the gun dry. Ice which has formed should be removed by melting and the weapon thoroughly dried.

*Frozen lubricants.*—The lower the temperature, the less the gun should be lubricated. Below minus 20 degrees Centigrade the weapon should be thoroughly cleaned by washing in petrol, if available, and then re-lubricated with oil, low cold, test. If this is not available the weapon should be left dry.

*Snow.*—Prevent the working parts from coming in contact with snow if possible. It is a serious enemy to the correct functioning of all small arms, especially L.M.Gs. If snow has stuck to the outside of the weapon, remove it by scraping. If inside the barrel, by melting.

### LESSON 3.—THE PISTON AND BARREL GROUPS

#### *Instructor's notes*

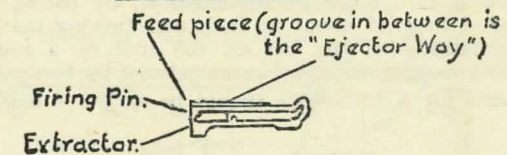
*Stores.*—Gun ; combination tool ; drill cartridges.

*Only those parts of the gun will be named which are dealt with in future lessons.*

#### *Piston group.*

1. Explain and demonstrate stripping and assembling :—
  - i. Cock gun and press the trigger.
  - ii. Push out body locking pin and draw butt back to its fullest extent. (In the Mark II, draw back approximately half-way.)
  - iii. Holding the return spring rod to the left, draw back cocking handle sharply and push it forward.
  - iv. Remove piston and breech block from gun.
  - v. Remove breech block from piston.
  - vi. Remove extractor stay and spring and extractor.
  - vii. Name the principal parts of the piston group (see Fig. 5).
  - viii. Assemble in reverse order.

#### BREECH BLOCK



#### PISTON.

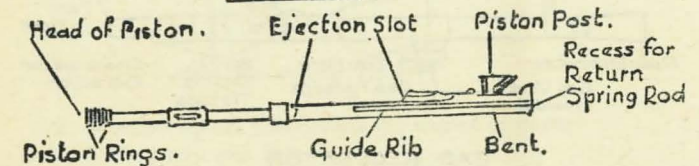


FIG. 5. PISTON GROUP.

2. Practise squad in stripping and assembling, questioning on names of parts.

#### *Barrel group.*

3. Explain and demonstrate stripping and assembling :—
  - i. Cock gun.
  - ii. Disengage barrel nut catch and rotate barrel nut to its fullest extent.
  - iii. Raise the carrying handle, push forward and remove barrel group.

*Note.*—Explain that on service the barrel is normally changed after firing ten magazines at the rapid rate. This duty is usually carried out by the No. 2, when ordered by the No. 1, who would first remove the magazine.

- iv. Push retainer pin flush with the regulator with the base of a round, turn gas regulator and remove.
- v. Name the principal parts of the barrel group (see Fig. 6).
- vi. Assemble in reverse order, ensuring that the retainer pin is pushed through, the regulator is set to the smallest hole which gives reliable functioning and the gas cylinder locking bar engages in the recesses of the



gas regulator. Show how gas regulator may be altered to a larger or smaller hole, by easing the barrel forward about an inch, and turning the gas regulator with the bar on the tool or a round. Clockwise for more gas, anti-clockwise for less gas.

*Note.*—Guns for A.A. defence should be at No. 4 hole.

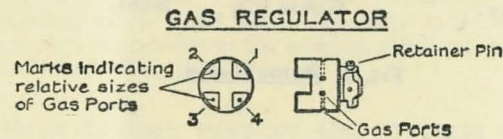
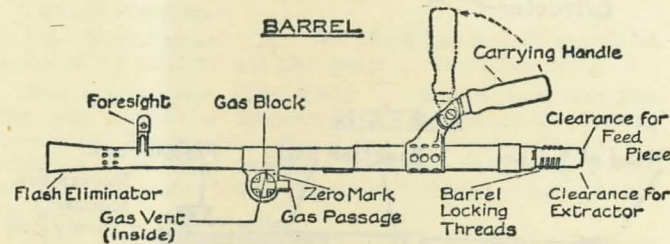


Fig. 6.—Barrel group

4. Practise squad and question on names of parts.

#### LESSON 4.—BUTT, BODY, AND BIPOD GROUPS

##### *Instructor's notes*

*As for Lesson 3.*

Explain and demonstrate stripping and assembling:—

##### 1. Butt group.

- Cock gun and press trigger.
- Push out body locking pin.
- Disengage barrel nut catch, and rotate barrel nut to its fullest extent.

*Note.*—This is not necessary with the Mark II Bren.

- Holding the body, slide off butt.
- Name the principal parts of the butt group (see Fig. 7).
- Assemble in reverse order.

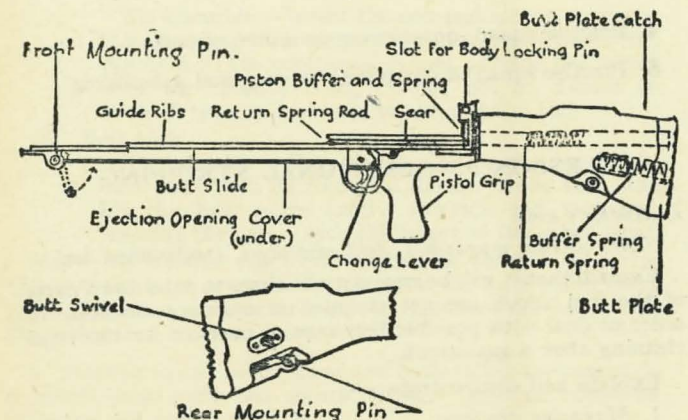


Fig. 7

2. Practise squad questioning on names of parts.

##### 3. Body group and bipod

- Remove piston, barrel and butt groups.
- Press down barrel nut retainer plunger and withdraw barrel nut.
- Turn body to the left and withdraw from bipod sleeve.
- Name principal parts of body group and bipod (see Fig. 8).
- Assemble in reverse order.

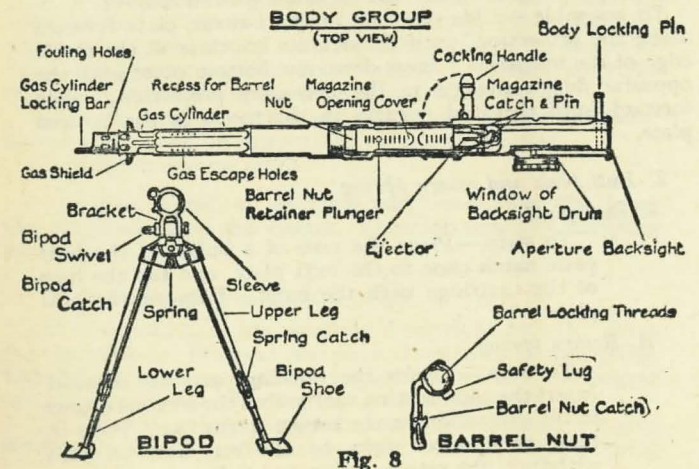


Fig. 8



4. Practise squad, questioning on names of parts.
5. Practise squad in complete stripping and assembling.

### LESSON 5.—ADDITIONAL STRIPPING

#### *Instructor's notes*

*Stores.*—Gun, magazines, drill cartridges, combination tool.

Explain that it will be necessary at times to take down parts of the gun which are not stripped in ordinary cleaning, in order to deal with possible breakage of parts or for thorough cleaning after a gas attack.

Explain and demonstrate :—

#### 1. Magazine platform

To strip.—Press in the stud on the bottom plate of the magazine and slide it off, controlling the spring as it comes out. Lift out spring and platform.

To assemble.—Replace the platform and spring. Compress the spring and slide on the bottom plate until the stud engages in the hole in the plate. A tap with the hand on the thin side of the magazine will assist it to engage.

*Note.*—To strip the Mark II magazine. With the nose of a bullet, depress the stud in the bottom plate. Draw the bottom plate back slightly, lift off sideways and remove.

To assemble.—Slide one side of the bottom plate forward along the projection, until the detents are clear of the inside edge of the magazine. Press down the bottom plate until the opposite flange engages in the necessary projection. Slide forward until the stud engages in the recess in the bottom plate.

#### 2. Butt plate and return spring

##### i. Butt plate

To strip.—Place the nose of a bullet on the butt plate catch close to the butt plate, and tap the base of the cartridge with the hand. Remove the butt plate.

##### ii. Return spring

To strip.—Ensure the working parts are forward. Insert the combination tool so that the recesses engage in the projection on the return spring cap. Press in, turn one-quarter turn to the left, and carefully withdraw the return spring and rod.

To assemble.—Insert the rod and return spring in their housing. Compress the spring by means of the cap held in the combination tool. Guide the spring with the fingers, being careful not to distort it. Press in the cap and turn to the right to lock.

##### iii. Butt plate

To assemble.—Engage the stud on the toe of the butt plate with its recess on the toe of the butt, and lift the butt plate firmly upwards and forwards, pressing the catch with the finger of the other hand.

*Note.*—To remove the return spring of the Mk. II Bren. Unscrew the large screw in the centre of the butt plate, using the combination tool or a screwdriver. This does not necessitate the removal of the butt plate.

3. Practise squad in stripping and assembling the magazine platform, butt plate and return spring. Question squad on stripping and names of parts.

#### 4. Firing pin

To strip.—Press out the retainer pin, taking care that the firing pin does not jump out of the back of the breech block.

To assemble.—Hold the spring in compression with the recess for the retainer pin corresponding with the retainer pin hole. Replace the retainer pin.

#### 5. Magazine catch and ejector

To strip.—Cock the gun, press the point of the magazine catch pin and withdraw to the right to a stop. Slide magazine catch and ejector forward. To separate, squeeze the magazine catch and ejector together to compress the spring, slide the magazine catch back along the ejector and lift off.

While the magazine catch and ejector are off, the magazine opening cover can be removed by sliding to the rear.

Assemble in reverse order.

6. Practise squad in stripping and assembling the firing pin, magazine catch and ejector. Question squad on stripping and names of parts.

#### 7. Trigger group (For N.C.Os. only)

To strip.—All pins are removed from right to left. Press out change lever. Press out sear pin and remove sear and spring. Raise tripping lever, press out trigger pin, and remove trigger and tripping lever. Do not strip further than this.

To assemble.—Keep trigger in position by holding tripping lever vertical and replace trigger pin. Place sear and spring



in position, with the end of the tripping lever through the slot in the sear, and insert sear pin. Hold down tripping lever slightly and press in change lever.

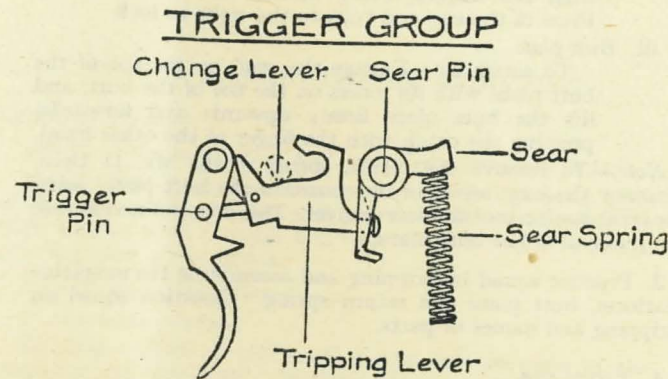


Fig. 9

## LESSON 6.—CLEANING

### Instructor's notes

*Stores.—Gun ; magazines ; spare barrel ; cleaning kit ; drill cartridges ; holdall complete.*

*Cleaning kit consists of :—*

*Single pullthrough with gauze.*

*Double pullthrough and gauze.*

*Spare gauzes.*

*Cylinder cleaning rod.*

*" " wire brush.*

*" " mop.*

*Combination tool.*

*Oil container.*

*Flannelette.*

*Graphited grease.*

*Oil, low, cold, test.*

*The various articles of cleaning kit will be explained as they are used.*

*On no account will anything rough be used.*

*Explain and demonstrate :—*

*Strip the gun completely.*

### 1. Barrel group

The wire gauze will be used for removing fouling. The gas block, gas regulator, and inside the flash eliminator should be cleaned and wiped with an oily rag. After firing this will be done until all fouling is removed. The barrel group should be, if possible, completely dry before firing. A piece of flannelette, 4 inches by 3 inches, will be put half-way through the loop of the pullthrough for this purpose. When the barrel has been cleaned with dry flannelette, a slightly smaller piece, well oiled, will be used to oil the barrel.

### 2. Body group

To remove fouling from the cylinder such as after firing, the wire brush may be found necessary. This should be oiled, and inserted handle first, from the breech end. Free working is facilitated by turning the rod clockwise. With the nose of a bullet, remove any dirt or fouling that may be in the large holes at the end of the cylinder. Then dry and oil. This can be done by attaching the mop to the cylinder cleaning rod. The mop should be covered with a dry piece of flannelette, 4 inches by 4 inches. To oil the cylinder, an oily piece of flannelette, 4 inches by 4 inches, should be attached to the pullthrough.

Remaining parts should be cleaned and wiped with an oily rag.

The cylinder should, if possible, be completely dry before firing.

### 3. Piston group

To remove fouling, clean and wipe with an oily rag. Special attention must be paid to the head of the piston, and piston rings, and all fouling removed. Before firing, they should, if possible, be dry, and the working surfaces of the breech block and piston extension lubricated with graphited grease, R.D. 1179.

### 4. Bipod

To remove fouling, clean the sleeve in the same way as the cylinder. Clean and wipe remaining parts with an oily rag. The bipod sleeve should, if possible, be dry before firing.

### 5. Butt group

Clean and wipe with an oily rag. The return spring should be oiled occasionally. This can be done by depressing the return spring rod and pouring a little oil in the recess.

Re-assemble gun.

### 6. Magazines

Clean and wipe with an oily rag.



7. *Wallet*

Teach contents. Oil can, combination tool, single pull-through and gauze, tin box containing spare gauzes, clearing plug and small spares. The wallet will always be with the gun.

8. *Holdall*

Teach contents.

*Inside.*—Spare barrel, cylinder cleaning rod.

*Outside.*—Top left—Spare breech block (if issued).

Top centre—Mop and wire brush. Double pullthrough.

Top right—Bottle of graphited grease.

Centre—Wallet complete.

Bottom—Tin of oil, low, cold, test.

9. Explain that, when possible, the following should be adhered to:—

- i. When not in use the gun should be well oiled.
- ii. Before firing, if possible, all gas affected parts should be dry.
- iii. During intervals of firing keep the working parts lubricated. Allow the barrel to cool as opportunity offers.  
It will be found that during firing the gun will become stiff in the bipod sleeve. To correct this, rotate the gun in the bipod sleeve at intervals.  
*Note.*—This does not apply to the Mark II Bren.
- iv. After firing, completely clean the gun.
- v. After gas—as for rifle.
- vi. In cases of extreme cold, oil, low, cold, test should be used. In hot and dusty climates, lubricants should be cut to a minimum.

10. Practise squad.

## LESSON 7.—MECHANISM

*Instructor's notes*

*Stores.*—Gun ; magazines ; drill cartridges ; empty case.

*During the lesson the gun will remain with the butt drawn back, and the piston, breech block, magazine catch and ejector removed, only being assembled when it is necessary to emphasize any action.*

Explain, demonstrate the action, and ask questions at the end of each phase.

1. *Backward action*

Some of the gases following the bullet pass through the gas vent and gas regulator into the gas cylinder. This forces the piston to the rear and compresses the return spring until the piston is stopped by the piston buffer. The empty case, being gripped by the extractor, is carried to the rear on the face of the breech block until its base meets the ejector. The case is then ejected downwards through the ejection slot in the piston.

2. *Forward action*

The piston, having been stopped by the piston buffer, is forced forward by the return spring, carrying the breech block with it. The feed piece meets the base of the first round in the magazine and forces it forward into the chamber, the extractor closing over the rim.

The piston post in its final move forward drives the firing pin against the cap of the cartridge, thus firing the round.

3. *Trigger action*

With the change lever at "A," pressure on the trigger disengages the sear from the bent on the piston, and the piston is allowed to go forward. As long as the trigger is pressed, the gun will continue to fire, but, if the trigger is released, the bent will engage with the sear the next time the piston comes to the rear, stopping its forward movement.

With the change lever at "R," the trigger must be pressed each time a shot is to be fired, because the piston is held back after each round. This is caused by the rear part of the piston bearing on the tripping lever during the forward action, causing the sear to rise.

With the change lever at "S," the trigger is disengaged from the sear, and the gun cannot be fired.

If pressure on the trigger is maintained while the change lever is altered from "Safe" to "Automatic" and then released and the trigger pressed again, the gun will not fire. The change lever, therefore, will not be altered when the trigger is pressed.

4. *Empty magazine*

If the magazine is empty, instead of meeting the base of a round, the feed piece on the breech block meets the rear of the magazine platform, and the action cannot go forward. On releasing the trigger and removing the magazine, the piston and breech block go forward until the bent on the piston meets the sear. The action is thus cocked in readiness for another magazine to be placed on the gun and firing to continue.

*Note.*—The Mark I Bren cannot be loaded or fired unless the barrel nut catch is correctly engaged.



## CHAPTER III

IMMEDIATE ACTION, STOPPAGES, HANDLING  
(BIPOD AND TRIPOD) FIXED LINES

1. The characteristics of the L.M.G. and its maintenance in action demand the performance of special duties by certain men of the section (*see* General Notes, paras. 5 and 6).

2. In handling (bipod and tripod) every man of the section is trained in the duties of Nos. 1 and 2. The lessons are designed to exercise the gunner either alone, or with an assistant. In action, the wallet will always be with the gunner or his assistant.

3. Each L.M.G. may, on occasions, be provided with a tripod, for the purpose of firing on "Fixed lines" or between "Fixed limits" during darkness, smoke or fog. There are five tripods per infantry company for this purpose.

4. Overhead fire should not be attempted unless exceptionally favourable conditions exist.

5. When each man has had sufficient practice to enable him to carry out instinctively the correct action on any given command, the instructor will introduce handling exercises.

The object of these exercises is to quicken all numbers of the section in the handling of the L.M.G. Accuracy must not, however, be sacrificed for speed.

These exercises should include all types of fire, immediate action, stoppages, use of cover, etc. No stripping and assembling against time will be carried out.

## LESSON 8.—IMMEDIATE ACTION

*Instructor's notes*

*Stores.*—Gun; magazines; wallet; drill cartridges; landscape target (if the ground itself is unsuitable for defining targets).

*The causes of stoppages will not be taught until the men are proficient in Lessons 8 and 9. They will then be explained as set out in the summary on pages 22 and 23.*

1. Explain that, if the gun is properly balanced and cared for, stoppages other than an empty magazine will rarely occur; also that I.A. is the action performed by No. 1 to remedy a stoppage. It must be carried out quickly, and

with practice should become instinctive. I.A. is not complete until the gun has been re-aimed and fired.

2. Explain and demonstrate :—

If the gun fails to fire or stops firing :—

- i. I.A. Cock the gun. Change the magazine. Aim and fire.
- ii. Practise squad by word of command.

3. Explain and demonstrate :—

If, after I.A., the gun fires one or two rounds and stops again :—

- i. Cock the gun and remove magazine, press trigger, cock gun. No. 1 will disconnect the barrel and adjust the gas regulator to the next largest hole—replace the barrel—place magazine on and fire.
- ii. Explain that this stoppage will rarely occur with a properly balanced gun.
- iii. Practise squad by word of command.

## LESSON 9.—STOPPAGES

*Instructor's notes*

*Stores.*—As for Lesson 8.

*Lesson will start with a recapitulation of Lesson 8.*

*A clearing plug will be used for the instructor's demonstration, but not for squad practice. A drill cartridge will be used for this purpose.*

1. Explain and demonstrate :—

If, after I.A., the gun will not fire :—

Cock gun and remove magazine.

Examine for obstruction in the body or chamber.

- i. If obstruction in the body, such as a jammed round or empty case, remove it—put magazine on and then fire.
- ii. If no obstruction in the body—insert the clearing plug into the chamber—press the trigger—cock gun, removing clearing plug and separated portion—put magazine on and then fire.

2. Practise squad by word of command.

3. Explain cause of stoppages (*see* summary on pages 22 and 23).



### SUMMARY OF CAUSES

The following table is for instructors who, using it in conjunction with Lessons 8 and 9, should teach the causes of stoppages when the man is proficient in these lessons.

Ref.	Possible cause of stoppage	How to teach cause of stoppage	Words of command for practice
(1)	(2)	(3)	(4)
Lesson 8, para. 2.	i. Empty magazine.  ii. Badly filled magazine. iii. Misfire. iv. Faulty ejection. v. Hard extraction.	Explain and, where necessary, demonstrate the effect of no ammunition in the magazine. Lesson 7, para. 4. Explain and demonstrate overlapping rims. Explain "No gas." Explain empty case in body. Explain hard extraction, force of the gas absorbed in extracting empty cases; not enough left to drive working parts to the rear.	"Gun firing all right." "Gun stops." "Gun fires all right."
Lesson 8, para. 3.	Insufficient gas.	This stoppage will not occur when a gun is properly balanced, i.e. gas regulator correctly adjusted. Care must be taken not to start with too much gas, or excessive strain and unnecessary hammering of the working parts will occur. Explain that, through lack of gas, the breech block may not be forced back far enough to engage behind the next round in the magazine or with sufficient force to ensure complete ejection of the empty case.	"Gun firing all right." "Gun stops—Fires one or two rounds and stops again—Gun fires all right."

22

### SUMMARY OF CAUSES—continued.

Ref.	Possible cause of stoppage	How to teach cause of stoppage	Words of command for practice
(1)	(2)	(3)	(4)
Lesson 9.	i. Obstruction caused by mechanical break-down.  ii. Separated case.	Not set up.  Explain that a separated case in the chamber is a very rare occurrence, but can be removed by the use of the clearing plug.	"Gun firing all right." "Gun stops—Will not fire."  Instructor will say: "Obstruction in body" or "Obstruction in chamber." "Gun fires all right."

23



## LESSON 10.—USE OF COVER

*Instructor's notes*

*Stores.*—Gun with sling attached ; magazine on gun ; gun placed in rear of the position.

Ground containing suitable types of cover must be chosen before the lesson.

## 1. Introduction

Question squad on points taught in using cover (rifle) and explain that the same principles must be applied with the L.M.G.

2. Explain and demonstrate mounting the gun for firing from various types of cover. Practise squad after each demonstration.

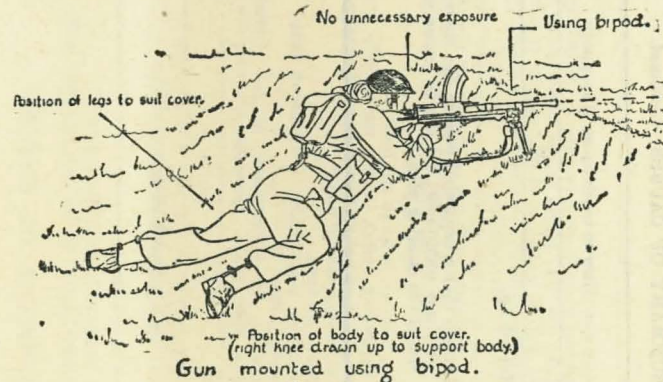
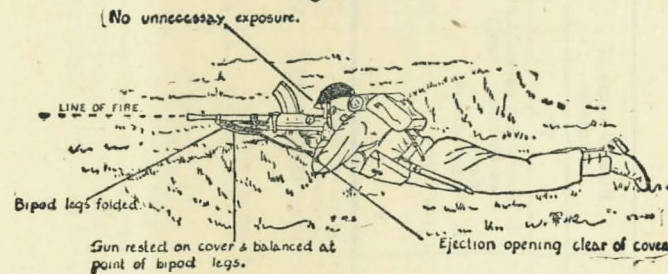
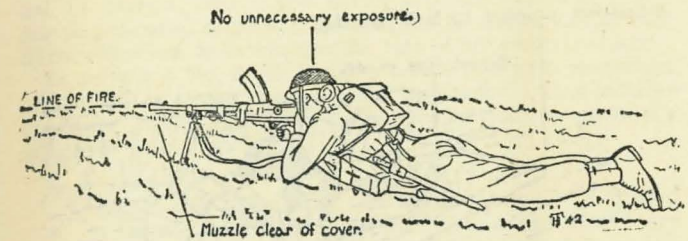


Fig. 10.



Gun mounted without use of Bipod.

Fig. 11.



Gun mounted using a fold in the ground.

Fig. 12.



Gun mounted round isolated cover

Fig. 13.

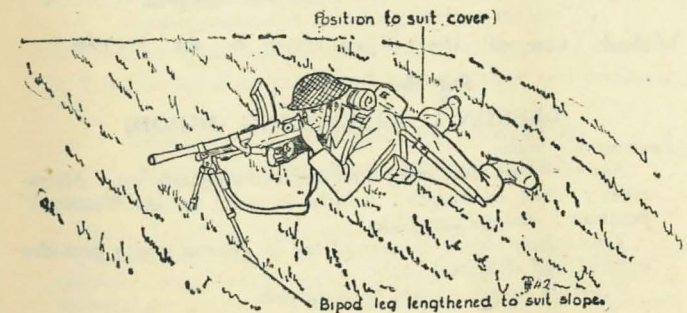
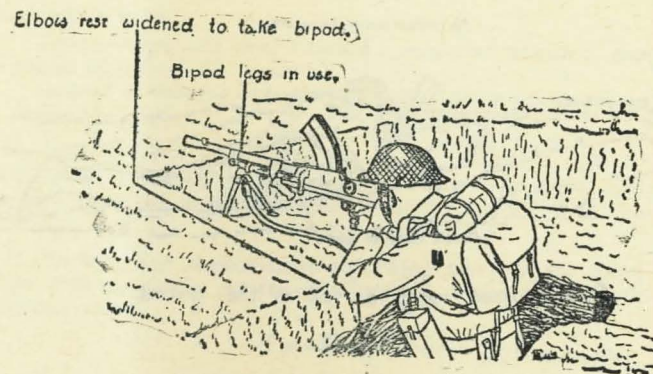


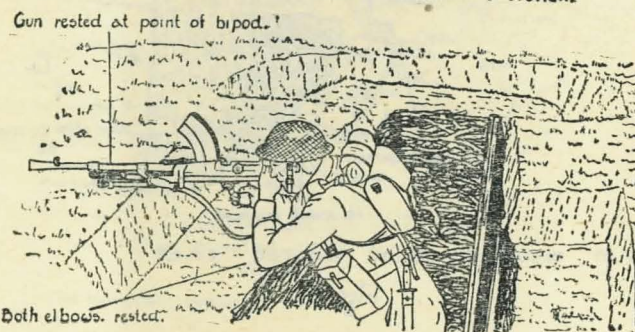
Fig. 14. Gun mounted on the side of a slope.





Both elbows rested.

Fig 15. Using the bipod from a slit trench.



Without use of the bipod from a slit trench.

Fig 16.

### LESSON 11.—HANDLING (BIPOD)

#### Instructor's notes

Stores.—Gun with sling attached and magazine on. Magazines; drill cartridges; utility pouches in the "action" position; holdall complete.

This lesson should be carried out on ground which provides natural and artificial cover.

Realistic targets should be indicated.

#### 1. Introduction

Explain that during movement the gunner must be prepared

to operate the gun without assistance. The spare barrel will not be carried, and if the barrel becomes excessively hot, due to prolonged rapid fire, he must use his discretion, in view of the situation, as to whether the rate of fire can be reduced.

In defence a No. 2 will be close beside him with magazines and holdall to render every possible assistance. This includes changing barrels and conveying the section commander's orders to firer.

#### 2. No. 1 acting alone

i. Explain:—"Positions of observation", "Behind cover" and the actions on "Watch the front" are the same as for the rifle (see Pamphlet 3, Lesson 7).

ii. Explain and demonstrate:—On the order "Down" lie quickly behind the cover and crawl forward so that the whole of the front can be seen without undue movement or exposure. The gun below cover, concealed. On the range being ordered set the sights and mount the gun according to the cover; this must be done as inconspicuously as possible, finally cock the gun. Engage enemy as indicated. If the gun is detached from the section these actions will have to be carried out on the firer's own initiative. During later training, therefore, verbal situations only should be depicted by the instructor and the No. 1 should then be left to act for himself.

iii. On command "Stop", lower butt and change magazine, if necessary. With drill cartridges the working parts remain forward once the trigger is pressed, but with live ammunition they would remain back on the trigger being released. On the order "Go on" continue firing as ordered.

iv. On the order "Cease firing", unload the gun and place a full magazine on. Return behind cover and remain concealed awaiting further orders.

3. Practise squad individually behind all types of cover.

4. Practise squad in pairs working as gunner and assistant.

### LESSON 12.—HANDLING (TRIPOD)

#### Mounting and dismounting tripod

#### Instructor's notes

Stores.—Tripod; gun with magazine on.

This lesson should be carried out on ground affording suitable cover, behind which the gun and tripod could be mounted for firing. When the gun and tripod are mounted, the squad should be taken to view the position from the enemy's



point of view, noting concealment, camouflage required, etc. In the later stages of training, good practice can be obtained in the following manner:—

Detail two members of the squad to mount the gun and tripod behind cover, within an area. Remainder of squad to watch the area from a suitable distance in front. Instructor to comment on concealment, undue exposure, and time taken.

Names of parts will be dealt with as they occur (see Fig. 17).

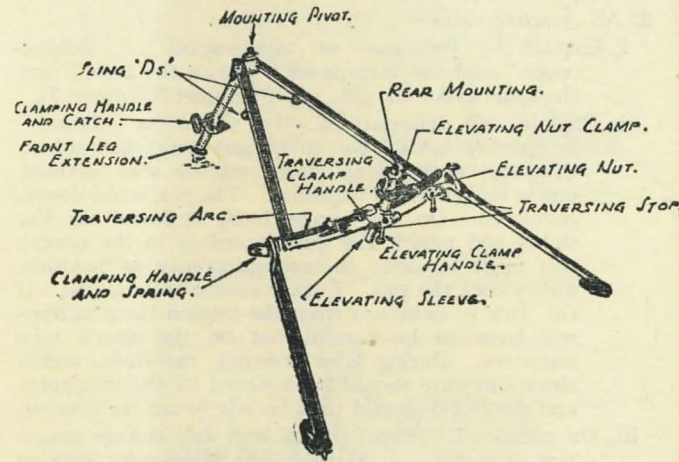


Fig. 17

#### Introduction

Instructor explains para. 3, page 20.

Explain and demonstrate duties of No. 2.

#### 1. To mount the gun and tripod

- i. Lay the tripod on the ground with the front leg underneath. Kneel or lie down according to the nature of the cover. Loosen rear leg clamping handles, swing legs back, and clamp approximately in line with the main frame. Loosen front leg clamping handle, swing leg forward and clamp. The legs should then be adjusted to suit the particular type of cover being used, remembering that when the tripod is mounted the traversing arc must be horizontal from right to left. With experience it will be possible to mount the tripod without unnecessary loss of time to suit the type of cover being used. Loosen the necessary traversing stop, move it to end of arc and clamp. Loosen the traversing clamp

handle, move elevating gear to centre of arc and clamp. Loosen elevating clamp handle, slide sleeve half-way forward and clamp. Raise to vertical position.

- ii. Duties of the No. 1.—Disengage front and rear mounting pins. Place the front mounting pin housing on the mounting pivot and replace mounting pin. Attach butt to rear mounting with the rear mounting pin.

Note.—Detail one of the squad to act as No. 2.

Both numbers slide the gun and tripod cautiously forward. Obtain rough direction by moving the rear legs. Make any adjustment necessary. Ensure legs are firm in ground (when possible by stamping in) and all clamps tight. Use sandbags or sods of earth to ensure tripod does not move.

#### 2. Dismounting gun and tripod

- i. Both numbers slide the gun back behind cover and dismount in the reverse order. Ensure mounting pins are replaced and clamps left tight.

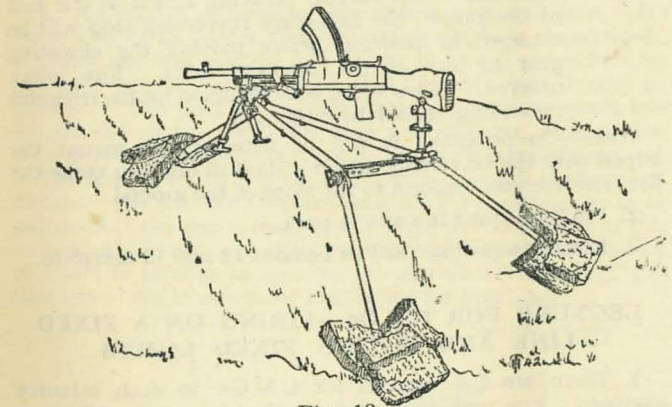


Fig. 18

Fig. 18 above shows gun and tripod mounted, ready to fire:—

- (a) Traversing arc horizontal.
- (b) No undue exposure.
- (c) Sandbags or sods on legs.
- (d) Legs are adjusted to suit cover.

3. Practise squad in pairs, mounting and dismounting gun and tripod.



## LESSON 13.—HANDLING (TRIPOD)

## Firing from tripod

*Instructor's notes*

*Stores.—As for Lesson 12.*

1. *Aiming and firing*

- i. Order two members of the squad to mount gun and tripod.

Explain and demonstrate :—

- ii. Order "Load." On the range being given, set the sights. On the target being indicated, aim the gun accurately with the aid of the traversing slide and elevating gear, clamping both and the elevating clamp nut when aim is accurate. The eye will be in the correct aiming position. Adopt any convenient firing position behind the gun with a minimum of exposure. (The butt need not be in the shoulder.)
- iii. When firing between fixed limits, aim will be laid at each end of the target. Having aimed at one end of the target, the necessary traversing stop will be clamped in position before moving the elevating gear to aim at the opposite limit. Fire when ordered. When firing between fixed limits, irregular traversing should be employed.

*Note.*—On occasions it will be necessary to mount the tripod with the traversing arc on a slant in order to make the fire from the gun conform to the slope of the ground.

2. Practise squad in pairs in para. 1.
3. Practise squad in pairs in Lessons 12 and 13 complete.

## LECTURE FOR N.C.Os.—FIRING ON A FIXED LINE AND WITHIN FIXED LIMITS

1. There are five tripods for L.M.Gs. to each infantry company; one with each platoon, the other two with company headquarters for allotment to platoons as required. Normally tripods are used only in defence.

## 2. The use of the tripod is twofold :—

- i. To enable the gun to fire on a fixed line.
- ii. To enable it to fire within the limits of a fixed arc. Apart from these uses, the gun will normally be fired from the bipod, because of the far greater flexibility with which it can engage targets in different directions when thus mounted.

3. Firing on a fixed line implies that certain measures and preparations have been carried out during daylight, so that when darkness comes, fog descends, or the enemy uses smoke, elevation and direction with the gun can still be maintained and its fire can be brought down on a previously selected line on the ground. With the L.M.G. these measures consist of mounting the tripod and clamping the elevating gear on the traversing arc in a fixed position, so that when the gun is mounted, its fire will fall on the previously selected line.

4. The method of laying a fixed line is given in Lesson 14. There are, however, additional factors which must be understood by all N.C.Os. down to section commanders. It must be first appreciated that the necessary fixed line tasks, and the guns which are to fire on them must be co-ordinated by battalion, etc., commanders as a part of the complete fire plan. A section commander will merely be told that his gun is to carry out a fixed line role and what that particular task is.

5. *The section commander has certain responsibilities.*—He must first of all ensure that the safety angle is maintained; no fixed line will ever be laid nearer to any position held by our own troops than an angle of 5 degrees; but it may be greater. It is possible that he may be given the exact line for the fire of the gun; this does not, however, absolve him from checking to ensure that the safety angle is being observed.

The line on which the fire of the gun is to fall having been decided, the section commander's next responsibility is to ensure that the gun is laid on to a point at the far end of this line, that is to say, at a point on the fixed line *opposite* the far end of the locality or area to be protected. (See Fig. 19.) The sights of the gun must also be set for this range.

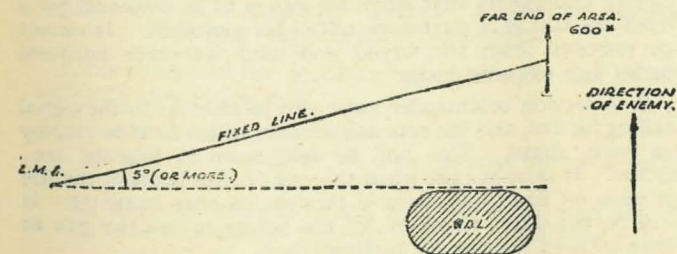


Fig. 19

The reason for this is that when firing on a fixed line with the L.M.G. the whole of the dangerous zone, as opposed to the beaten zone only, is used. (See S.A.T., Vol. I, Pamphlet



No. 1, Chapter 2, Theory.) As to whether this is possible will, of course, depend to some extent on the conformation of the ground and the range at which the fixed line is being laid. The fixed line should be laid, if at all possible, to take advantage of the most suitable ground. A normal range for fixed line firing will be about 600 yards. At such a range, by laying on the far end of the line, the whole of the dangerous zone is applied.

The extreme importance of L.M.Gs. being accurately zeroed for elevation must also be stressed, for if a gun fires low much benefit of the above will be lost.

6. It should be appreciated that it is a principle that the foremost guns in a defended locality should not normally be given fixed line tasks. Should such foremost posts themselves be attacked, they will take the gun off the tripod and use it to protect themselves, thereby failing in their fixed tasks. This is only human nature, and is hard to avoid. Fixed line tasks should, therefore, be given to guns which, as far as possible, are protected by other positions to their front. In order to obtain the maximum benefit from the fire, all fixed line tasks should be enfilade ones. There will, of course, be exceptions to this such as a L.M.G. firing on a fixed line down a cutting or sunken road leading into the front.

7. A section commander allotted a fixed line task must be given clear instructions as to the times the gun is to be available for the task. If he is not told, he must ask. Normally this will probably be during the hours of darkness only, i.e. from "stand to" in the evening until "stand down" the following morning, and will also include all periods of fog, mist or when smoke is used. Certain fixed line tasks may be ordered by day as well as night. The section commander must clearly understand that when his gun is to be available for a fixed line task it is, as it were, out of his command. It cannot be removed from the tripod and used for other purposes under any circumstances.

8. A section commander must also be clear as to the signal calling for fire, and the rate and amount of fire he is to employ on such signal. This will be laid down in brigade, etc., orders. It is vital that when the call for fire is given the fire of guns on fixed line tasks is brought to bear instantly. It will be the duty, therefore, of the sentry to fire the gun at once without waiting for further orders.

#### 9. Firing within fixed limits

Guns in the foremost positions can often be suitably employed by firing within fixed limits of an arc to cover narrow approaches leading into their position in darkness,

fog, etc., or they may be used for their own protection by being laid to traverse along an obstacle. Guns sited for coast and beach protection should normally be employed firing within fixed limits, a series of interlocking arcs of fire in enfilade being thus provided. Preparations are still necessary in daylight. The gun having been mounted on the tripod, is laid for elevation as required and the limits of the arc required to be traversed are fixed by the stops on the traversing arc. Should the gun be used to protect its own post the aim should be low down on the wire obstacle. For beach defence the sights should, if possible, be set to 600 yards, and the aim laid for that distance, in order to get the maximum distance covered by fire taking advantage of the flatness of the trajectory up to that range. Thus in darkness or fog the gun can be fired irregularly in bursts within the limits of the chosen arc. It should be realized it may often be necessary to have the tripod mounted so that the traversing arc is on a slant in order that the fire may conform to the ground. Should this not be done, while fire may be at the correct height at one limit it will often be found that at the other limit it is very high in the air and, therefore, quite useless. Firing within fixed limits must not be confused with firing on a fixed line. Preliminary measures are still required by daylight, but the gun fires within the limits of an arc as opposed to firing on a definite line. Moreover, when firing on a fixed line a gun is nearly always being used to protect another locality. This does not necessarily follow when firing within fixed limits.

## LESSON 14.—FIXED LINES

### *Instructor's notes*

*Stores.—As for Lesson 12.*

*This lesson should be carried out on ground similar to that mentioned in Lesson 12. Describe a simple situation relative to the task and position of own troops.*

1. Order two of the squad to mount the gun and tripod, with reference to the task.
2. Explain and demonstrate:—
  - i. Using the gun sights, align on the edge of the defended locality, the safety of which is involved.
  - ii. Note the reading on the traversing arc, and lay off not less than 5 degrees. The fixed line must not be within the limit of 5 degrees of our own troops. It may be necessary to lay off a greater amount



in order to get suitable ground for the line of fire and to avoid obstacles.

- iii. With sights set at the range required, lay on the far end of the area to be covered. This is the fixed line for the gun.
- iv. Clamp the elevating and traversing gear tight. Clamp both traversing stops firmly up against the traversing slide.
- v. The "dangerous zone" as opposed to the "beaten zone," is used in fixed line firing.
- vi. Great care must be taken that the tripod is not moved and that the elevating and traversing gear and traversing stops are all kept firmly clamped.
- vii. Every man in the section should know the reading on the sights and on the traversing arc, and the point at which the gun is aimed.
- viii. Should it be permitted to remove the gun from the tripod to resume its bipod role, this may now be done. It will be replaced on the tripod when required to take up its fixed line role. This should be done before dusk to enable the fixed line to be re-checked.

### 3. Practise squad.

## CHAPTER IV

### SECTION HANDLING

#### LECTURE FOR N.C.Os.—SECTION HANDLING

##### General

1. i. The Bren L.M.G. is the principle weapon of the infantry and every man will, therefore, be trained to use it.
- ii. The rifle is the personal weapon of the individual. It will be needed to augment the fire of the L.M.G. when required in an emergency, for local protection, and especially for "sniping" single enemy.
- iii. Each section in the platoon is equipped with a L.M.G. The gun may be employed within the section under the direct control of the section commander or detached.

- iv. The ammunition available in the platoon truck for the L.M.G. is 3,000 rounds, of which 700 rounds for each gun is in magazines, the remainder being in a box. The whole should be regarded as a platoon pool.

##### In movement

2. i. The gun can be operated by one man, provided the ammunition is within reach. To ensure this, a second member of the section is required to maintain an adequate supply at the gun.
- ii. During the attack sections will be divided into two groups—the rifle group and the L.M.G. group. The rifle group consists of :—

Section comdr.  
No. 1 rifleman.  
No. 2 rifleman.  
No. 1 bomber.  
No. 2 bomber.

The L.M.G. group consists of :—

2nd i/c sec.  
No. 1 Bren.  
No. 2 Bren.

Each group can advance under the fire of the other, or the whole section can be used to cover the advance of another section or *vice versa*.

- iii. The task of the section is to get on to its own objective, and although it may have to take up a fire position, it will be only temporary and the advance must be resumed at the earliest opportunity.
- iv. The maximum use of available cover must be made.

##### In defence

3. i. Within defended localities L.M.Gs. will be given arcs of fire covering their localities. Foremost sections will automatically engage targets directly threatening them and greater flexibility will be obtained by firing from the bipod. A long field of fire is not essential, a field of fire of 100 to 150 yards will suffice. In the foremost posts, therefore, guns will be given arcs of fire covering the approaches to their positions and will not normally be given fixed line tasks (see para. 6 of Lecture on Firing on Fixed Lines).
- ii. Guns which are defiladed and protected from the front by the disposition of other sections will normally be



given arcs of fire and fixed lines so that, should one gun go out of action there is another covering the same, or almost the same, ground from a different position. Alternative positions will always be selected and prepared for guns not on fixed line tasks.

- iii. Concealment from ground and air is of the utmost importance.
- iv. As sustained fire may be required, barrel changing may be necessary. The gunner will, therefore, require an assistant constantly at the gun, whilst, if additional ammunition is available, other members of the section will be required for filling magazines in addition to their other duties.

#### Section handling (Lessons 15 and 16)

- 4. i. This consists of training the section with the L.M.G. It will take the form of exercises designed to reproduce conditions of battle. The duties of all members of the section will be practised.
- ii. The supposed direction of the enemy will always be indicated. In section handling the position of the instructor will be that of the section commander in battle until he has given orders. He will then resume the role of instructor and move about checking faults by questioning the section.
- 5. The section will normally fight equipped as follows:—
 

<i>Sec. Comdr.</i> —T.M.C., 6 T.M.C. mags., 2 L.M.G. mags., wirecutters, matchet, whistle ...	65 lbs.
<i>No. 1 Rifleman.</i> —Rifle, No. 3, bayonet, 50 rds. S.A.A., 4 L.M.G. mags. ...	61 lbs.
<i>No. 1 Bomber.</i> —Rifle, bayonet, 50 rds. S.A.A., 236 grenades, 2 smoke grenades, 1 L.M.G. mag.	60 lbs.
<i>No. 2 Rifleman.</i> —Rifle, bayonet, 50 rds. S.A.A., 4 L.M.G. mags. ...	61 lbs.
<i>No. 2 Bomber.</i> —Rifle, bayonet, 50 rds. S.A.A., 236 grenades, 3 L.M.G. mags. ...	60 lbs.
<i>2 i/c Sec.</i> —Rifle, bayonet, 50 rds. S.A.A., 2 L.M.G. mags., 2 smoke grenades ...	61 lbs.
<i>No. 1 Bren.</i> —L.M.G., 50 rds. S.A.A., 4 L.M.G. mags. in basic pouches, spare parts wallet ...	75 lbs.
<i>No. 2 Bren.</i> —Rifle, bayonet, 50 rds. S.A.A., 4 L.M.G. mags. in basic pouches, 2 utility pouches ...	63 lbs.

- Notes.*—i. S.A.A. will be carried in bandoliers if available.
- ii. Equipment and weapons carried should be varied to suit the particular operation in hand. For

patrol work and other special duties, considerable modifications will be necessary.

- iii. The above figures regarding ammunition are given as a guide, i.e. dependent on the situation.
- iv. During movement the immediate S.A.A. supply is limited to that carried by the section. Normally an individual should not carry more than four magazines, except for short distances. In addition, the 350 rounds for the rifles can, in an emergency, be filled into the magazines.
- v. The following are the duties in connection with ammunition supply:—
  - (a) No. 1 will use one of the four magazines which he is carrying for the initial loading of the gun. The two remaining magazines will be kept as a reserve for use in an emergency.
  - (b) No. 2 will at all times keep the gun supplied with ammunition. He will place himself as near the gun position as cover will allow, so that he can carry out his duties of ammunition supply with the minimum movement and exposure, or, if required, act as a rifleman. He will collect full magazines from other members of the section and place them in his set of utility pouches within reach of No. 1. As further ammunition is required, No. 2 will collect more magazines in the other set of utility pouches. Empty magazines will be redistributed by him to the section.

- vi. Magazines should be refilled as opportunity offers.

6. Sections should be frequently exercised in Section Handling (Movement and Defence) under their commanders. The ground for section handling must be constantly changed and training made progressive.

#### LESSON 15.—SECTION HANDLING (MOVEMENT)

##### *Instructor's notes*

##### *Stores:—*

- i. Gun with sling and magazine on; magazines; wallet; utility pouches. Magazines should be in the equipment of the section.
  - ii. Fatiguemen with rifle and blank S.A.A.
  - iii. Fatiguesman with dummy screen, or silhouette figure targets placed in position.
- The lesson should be carried out on rough ground.  
It is essential that if fatiguemen are used they must be



fully rehearsed and that the instructor should have his situations prepared. Suitable targets may be used in lieu of fatiguemen.

The instructor should be fully conversant with the lecture on section handling, page 34.

He should criticize the actions of the riflemen first. When criticizing the actions of the gunner, the remainder of the section should be called to the side of gun.

Should the gun be detached from the section the riflemen should follow in order to benefit from any criticisms made by the instructor on the actions of the gunner and/or his assistant. The instructor should bring out faults made by questioning the whole section.

#### 1. Explain :—

- i. The purpose of this lesson is to practise all members of the section in their duties during movement. All members of the section will be practised by interchange of duties.

- ii. General Notes, para. 6, as applicable.

- iii. The organization of the section. (Para. 5, pages 36, 37.)

2. Instructor, acting as section commander, gives a simple situation dealing with the whereabouts of the enemy, the general line of advance, sections on right and left.

#### 3. Method of conducting :—

The section advances over the area selected for the exercise in a formation suitable to the ground and tactical situation.

Signal for a pre-arranged situation to be presented and order the section to take cover.

Give a fire control order, suitable for the target, and one or two switch targets.

Check and comment where necessary on the actions taken by each rifleman.

With riflemen round the gun, deal with the actions of the gunner and No. 2.

Re-allot duties within the section and repeat as necessary.

4. As proficiency increases, more difficult situations should be introduced including :—

Ordering gun forward, covered by riflemen.

Gun covering riflemen forward.

Gas.

Casualties (this should not be neglected as it calls for quick thinking and initiative on the part of the individual, particularly when the gunner and section commander become casualties).

This lesson will require frequent repetition. It should never be carried out by the same section over the same ground.

## LESSON 16.—SECTION HANDLING (DEFENCE)

### Instructor's notes

*Stores.*—Gun, with magazine on ; holdall complete ; magazine in equipment ; S.A.A. box ; utility pouches ; tripod ; camouflage ; fatiguemen or suitable targets.

The ground must be selected beforehand and the situations prepared.

Attention is drawn to Instructor's notes, Lesson 15.

#### 1. Explain :—

The purpose of this lesson is to exercise the section in its duties during defence. This lesson must be continually varied and the set sequence given in paras. 3, 4, 5, below, not adhered to slavishly.

The changes in the duties of the various numbers of the section are as follows :—

No. 2 will be in a position close to the gun from which he can assist No. 1 in every way possible.

Remaining numbers duties are the same as for movement.

2. Instructor, acting as section commander, reconnoitres position. Points out gun position and alternative position. Orders section to occupy position and indicates direction of enemy, neighbouring sections, arc of fire and reference points.

#### 3. Bipod role

Orders section to stand down. Posts sentry and arranges for pre-arranged situation to be presented. Gives fire control order. Checks and comments briefly on the actions of each member of the section.

#### 4. Tripod role and fixed lines

Explain that, after an action as above, orders are received to prepare the gun for fixed lines. Details of the fire plan and the positions of neighbouring defended localities are described.

Point out the defended locality or area to be protected and the position in which the gun is to be mounted.

No. 2 sets up the tripod.

As section commander, order No. 1 to lay the fixed line as taught, in the meantime questioning the section on fixed lines.

Explain that it is advisable to complete all arrangements just before dark, so that the aim and safety angle can be checked. Features which are likely to stand out in the failing light, and which may assist in maintaining direction, must be noted during daylight.

On the call for fire, rapid and slow fire will be employed as ordered in brigade, etc., orders.



To be effective, fire must be produced immediately the signal calling for it is given. Arrangements should be made to replenish at once ammunition so expended.

Instructor explains that it is now dusk, and orders section to "stand to". Instructor checks fixed line and safety angle. Orders section to stand down, explains that darkness has fallen and posts two sentries. Signal for pre-arranged situation to be presented.

Check and comment, with special emphasis on the following:—

Action of sentries.

Was fire opened immediately?

Was the correct type of fire used?

Action of the section.

*Note.*—As fire must be opened immediately when a call for fire goes up, one sentry should perform this duty at once.

5. *Tripod role in forward posts*, i.e. guns not protected from the front:—

Explain that in the most forward posts guns will be given arcs of fire covering the main approach to their position. At night or in conditions of bad visibility where the main approach is narrow, guns can be suitably employed by firing from the tripod, using the traversing stops. In this role, fire will be under the control of the section commander.

Point out the approach or arc on which fire is to be brought to bear, indicating the limits of the traverse.

No. 2 sets up the tripod.

As section commander, order No. 1 to lay on the approach or limits of arc.

Explain that the section commander will decide, according to the situation, whether the gun will remain on the tripod after dark or be used in the bipod role until he orders it on to the tripod.

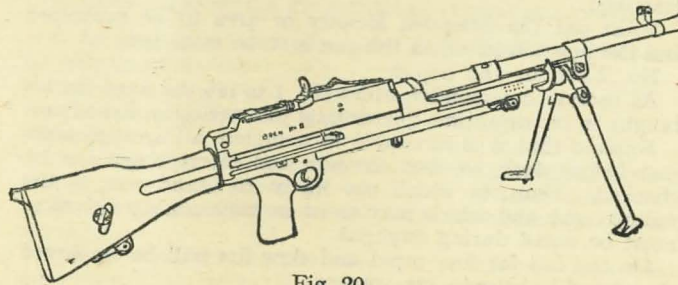


Fig. 20.

IN EACH OF THE FOLLOWING TESTS THE MAN WILL BE ALLOWED THREE ATTEMPTS AND, TO PASS, TWO MUST BE CORRECTLY CARRIED OUT WITHIN THE TIME LIMIT, WHERE THIS EXISTS.

Name of test and stores	Conditions of test	Time	Remarks
No. 1. Loading. Gun and one filled magazine.	Firer lying on ground—gun unloaded—butt on ground—magazine in pouch equipment—change lever at "A" or "R".	10 secs. from command "Load" until left hand returns to butt.	Firer will be given range and "Fire," or "Bursts-Fire." Maximum alteration of sights 400 yards. Aiming disc held one yard in front of gun. Height of disc to be varied for each aim. To pass the test all actions, including sight setting, must be carried out correctly.
No. 2. Aiming and firing. Gun—aiming disc.	Firer lying behind gun—butt on ground until the order "Fire" is given—gun cocked—change lever at "Safe"—no magazine on gun.	Nil.	Instructor ensures that the gas regulator is at No. 2 hole at the beginning of the test. Time will be taken from the first "Gun stops" until "Gun is firing all right" at the end of second I.A. The combination tool must be used from the wallet.
No. 3. Immediate action by No. 1. Gun, full magazine. Any suitable aiming mark. Wallet.	Instructor will order "Load—Range—Target—Fire." "Gun is firing all right." "Gun STOPS." On No. 1 having applied I.A. the instructor will order: "Gun fires one or two rounds and stops again."	45 seconds from the command "stops" until No. 1 fires, having altered the regulator.	Serious faults, e.g. incorrect mounting of gun, over-exposure and incorrect handling will entail failure.
No. 4. Handling. Gun. Magazine on. Wallet. Magazines in utility pouches.	No. 1 acting alone, will be tested in Lesson II complete behind various types of cover.	Nil.	