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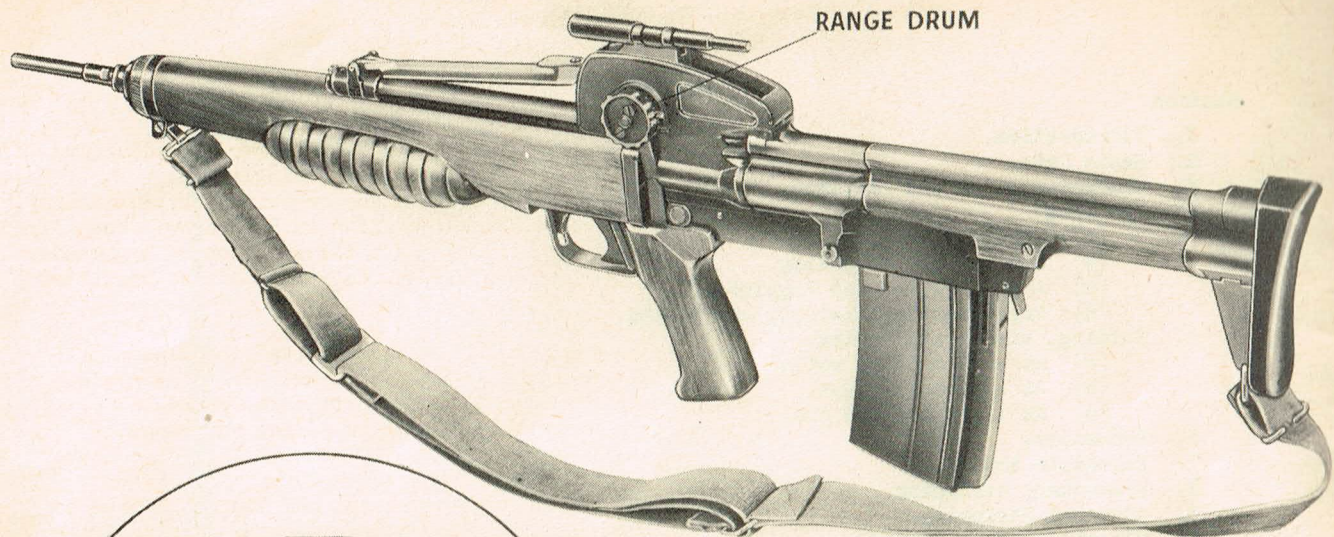
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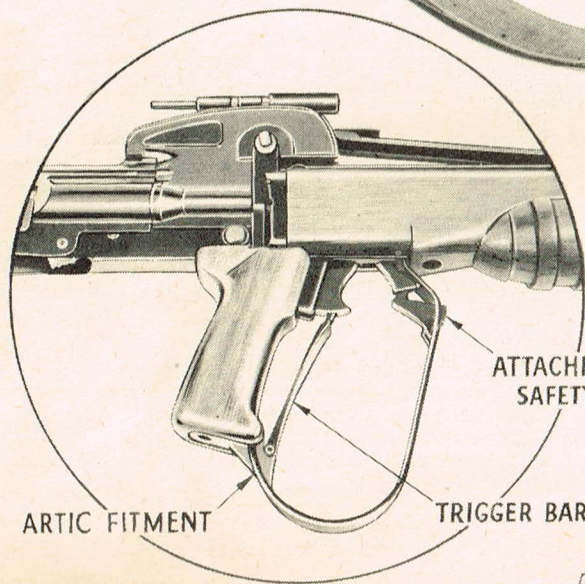
PROVISIONAL NOTES
FOR USERS OF
RIFLE, AUTOMATIC, .280-IN.
E. M. 2
(C. E. A. D.)

D. OF A. (S. A.)
MINISTRY OF SUPPLY
LONDON
1950

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RANGE DRUM

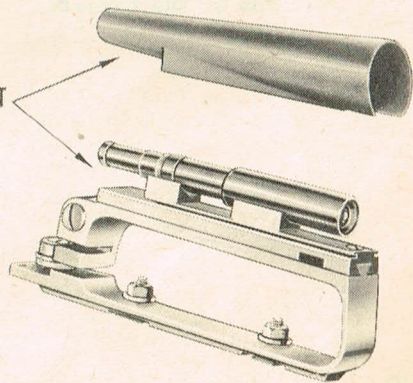


ATTACHMENT TO
SAFETY CATCH

ARTIC FITMENT

TRIGGER BAR

FIXED SIGHT



Frontispiece

SECTION 1

INTRODUCTION

1. The general characteristics of the weapon are its versatility and its power of delivering either rapid single round fire or a volume of fire with the employment of a single man.

The weapon can be fired as a self loading rifle, a sub machine gun or (with the addition of a bipod) a light machine gun. Its effective range as a self loading rifle is 500-yards. When fired from the bipod its effective range can be increased to 800-yards. With the addition of a grenade launcher, it can project a 1 $\frac{1}{4}$ -lb. grenade to a maximum range of 250-yards. It can also be fitted with a bayonet.

2. It is an air cooled weapon. To avoid over-heating, 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, when employing automatic, to fire in bursts of two to three rounds.

The accuracy of the gun permits of only a small margin of error in aiming and range estimation.

3. Taking into account the time required to change magazines a trained man should be able to maintain, if required, an average rapid rate of 30/40 aimed single shots a minute. Firing automatic an average rapid rate of 60-rounds per minute can be obtained.

Bearing in mind the limited amount of ammunition available with the gun during movement a man can fire 10 magazines at the automatic rapid rate. After this, in order to preserve the barrel of the gun and to avoid excessive over-heating, it is advisable that the rate of fire should be reduced if the battle situation permits.

4. 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 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 60-rounds per minute according to the requirements of various types of targets likely to be encountered in battle.
- (iv) To observe fire and correct his 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 engage appropriate targets with effective rifle - grenade fire.
- (viii) To use the weapon effectively, with the bayonet in close quarter fighting.

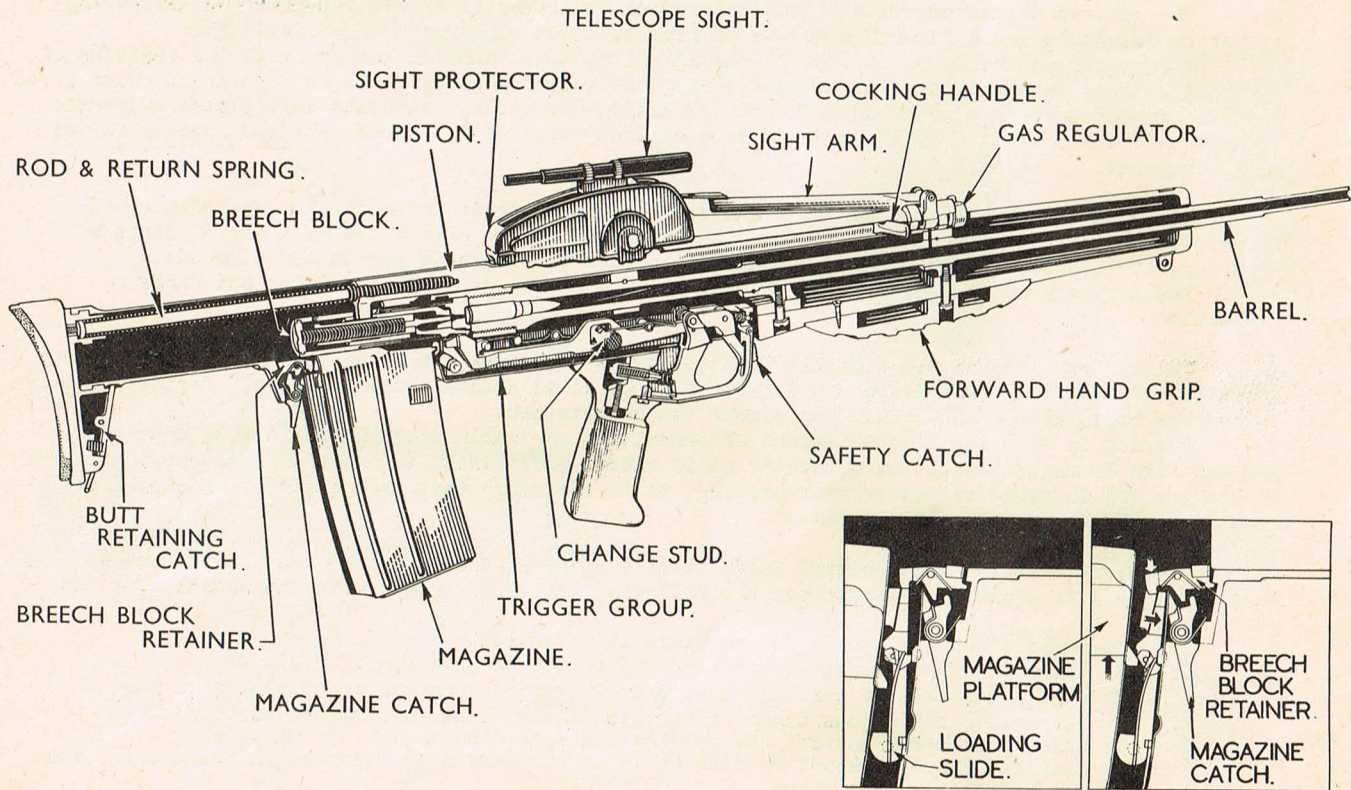


Fig. 1.

HOLDING OPEN DEVICE.

5. General description of E.M.2. Automatic Rifle .280.

		<u>Lightened Pattern</u>
Weight of Gun	7-lbs. 13-ozs.	7-lbs. 8 $\frac{1}{2}$ -ozs.
Weight of Gun (and bipod)	8-lbs. 6 $\frac{1}{2}$ -ozs.	8-lbs. 2-ozs.
Filled magazine (20 rounds)	1-lb. 7-ozs.	-
Length of gun overall	35-ins.	-
Length of barrel	24 $\frac{1}{2}$ -ins.	-
Type of Sight	Unit Telescopic Sight (Unit magnification).	
	<u>Long Arm Sight</u>	<u>Fixed Sight</u>
Graduation	100-yds. to 800-yds.	100-yds. to 900-yds.

SECTION 2

BASIC DATA.

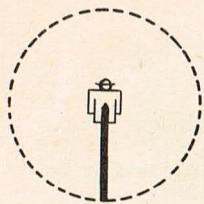
(a) Shot travel	23.5-ins.
(b) Muzzle velocity	2415-ft/sec.
(c) Weight of projectile	14.0-grains.
(d) Weight of charge	31.5-grains.
(e) Maximum pressure	23.5 tons/sq.in. (true)
(f) Weight of barrel	1-lb. 14 $\frac{1}{2}$ -ozs.
(g) Estimated rate of fire	600/650 r.p.m.
(h) Magazine capacity	20-rounds.

SECTION 3

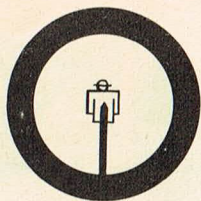
CHARACTERISTICS AND FEATURES (FIG.1)

- (a) Gas operated with gas regulation.
- (b) Straight through shoulder reaction.
- (c) Positively locked breech with forward locking.
- (d) Mechanical and applied safety.
- (e) Single and automatic firing with double trigger pressures.
- (f) Firing pin energy divorced from return spring.
- (g) Holding open device when magazine is emptied.
- (h) Release, for holding open device, incorporated in magazine catch.
- (i) Optical sight.
- (j) Initiation of fire with breech block in locked position.
- (k) Charger loading device incorporated in the magazine.

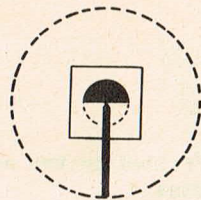
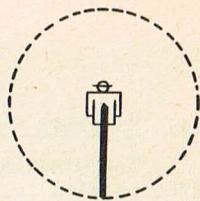
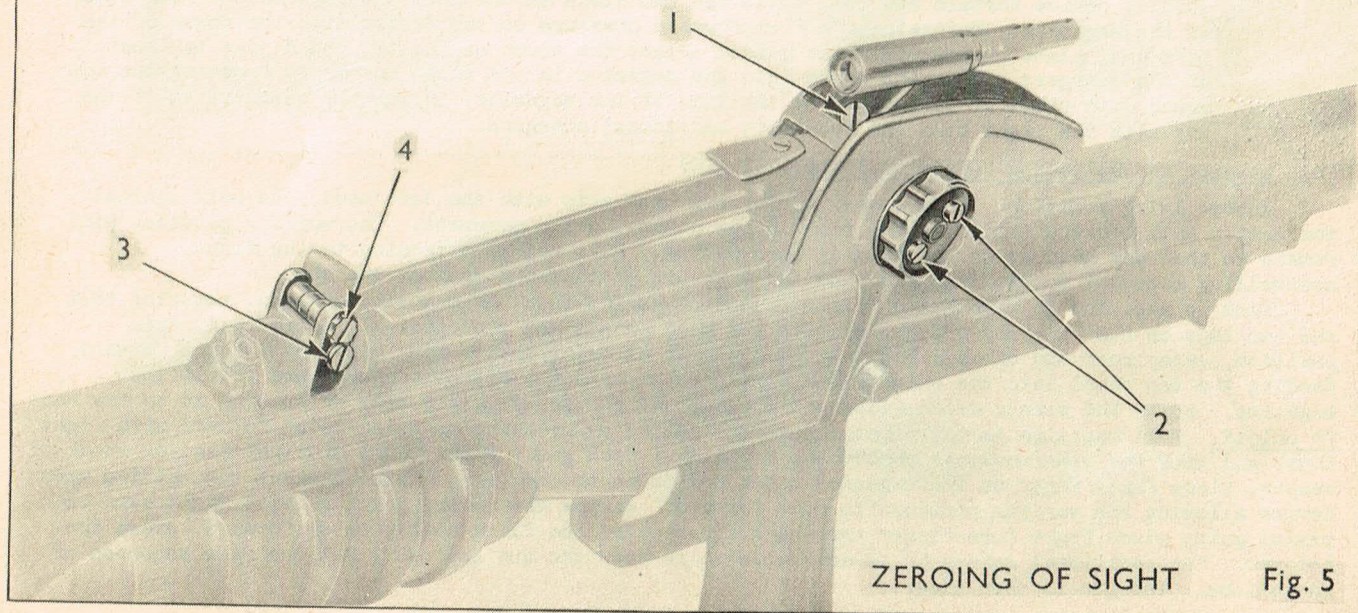
For illustrative purposes only



Correct aim.



Floating aim.

Correct aim
at a range target.Correct aim
at a figure target.

ZEROING OF SIGHT

Fig. 5

(c) Adjusting the gas regulator

The gas regulator has two positions. 'N' for normal gas, and 'E' for excess gas.

The gas regulator will always be adjusted to 'N' at the start of a shoot.

To adjust: Using the nose of a bullet depress the positioning stud of the regulator out of engagement with the positioning groove, and turn regulator to the alternative position, allowing the stud to reassert itself in the alternative groove, thus positioning and retaining the regulator in the new position.

Note that no stripping is required for this operation such as in removal of the gas regulator.

(d) Sights and Sight Setting.

Two types of unit sight have been designed for use with the automatic rifle:-

The "Long arm" sight with range graduation drum.

The "fixed sight" with inverted pointer, and range graduations incorporated within the lens.

Both sights differ in zeroing, sight setting, and aiming.

The Long Arm Sight (fig.5)

This sight is mounted on an arm, attached to the rifle, which allows it to be held in two positions:-

- (i) the "sight down" position, when the sight is NOT in use, and in this position the sight is fully protected by the two protectors mounted on the rifle.
- (ii) the "sight up" position which is used always when the rifle is brought into action and the sight is going to be used.

Both positions are obtained by flicking the sight up or down, as required.

When the gun is unloaded, the sight will always be lowered into the "sight down" position.

The sight has a range drum, which, when turned, pivots the sight to give the correct elevation for the required range.

The range scale is graduated in hundreds of yards from 200 to 800 yards. Each click gives an alteration of 100 yards.

To set the sight the range drum must be rotated until the required figure (or dot) is opposite the pointer.

Zeroing

The pointer is intended to be zeroed to give a central M.P.I., at 100-yards.

Method

Vertical error (elevation) is compensated by adjustment of the elevation screw (1) and the two cam screws (2) on the elevation drum.

Rough elevation is obtained by slackening or tightening the elevation screw situated under the tube of the sight, which depresses or raises, respectively, the sight, giving more or less elevation. The final adjustment is made by slackening the two cam securing screws, and rotating the drum into the required position. The cam securing screws are then tightened, and the sight is thus locked into its position.

Lateral deflection (line) is compensated by unscrewing the locking screw, (3) situated at the base of the sight arm, and rotating the deflection screw (4). The deflection screw rotates in well defined clicks, each click giving a lateral alteration of $1\frac{1}{2}$ -inches, at the target, at 100-yards.

Aiming.

- (1) Keep the sight upright.
- (2) Close the left eye.
- (3) A full field of view must be obtained. If the eye is too near, or too far from the sight, a floating aperture will be obtained.
- (4) Place the tip of the pointer in the centre of the target.
- (5) Aiming off for wind and movement should be done as usual.

Fixed sight with inverted pointer and Range graduations (fig.6)

This is a later development of the Sight already described.

Zeroing.

The pointer is intended to be zeroed to give a central M.P.I., at 100-yards. The lens tube thereafter remains fixed in relation to the axis of the barrel, until such time as re-zeroing becomes necessary.

Method.

Vertical error (elevation) is compensated by fitting a thicker or thinner washer (or distance piece) on the elevation adjusting screw (1).

Lateral elevation (line) is compensated by fitting a thicker or thinner washer (or distance piece) on the lateral adjusting screw (2).

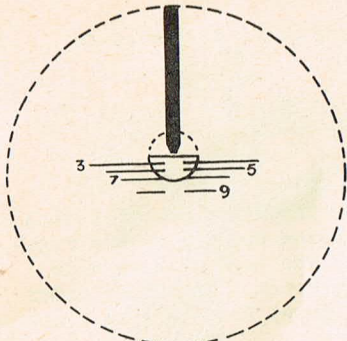
Aiming.

The aim varies in accordance with the drop of the bullet, under the influence of gravity during its time of flight to the target.

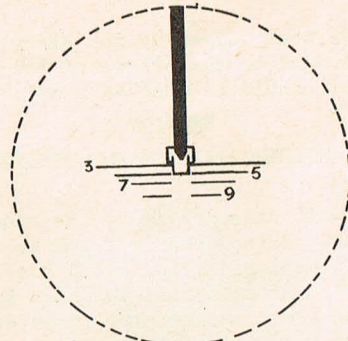
For ranges up to 100-yards, the tip of the pointer is brought down to the centre of the target.

For succeeding ranges the pointer is raised above the centre of the target to a height which represents the gravity drop of the bullet over that distance.

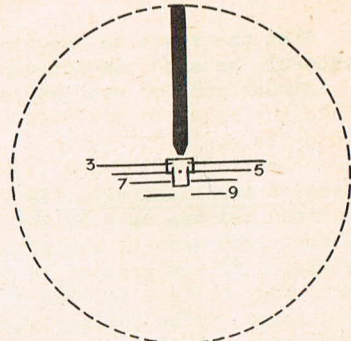
Owing to the restricted space available on the lens only alternate range graduations are marked (300, 500, 700, and 900-yards). These graduation lines are broken in the centre (i.e. vertically beneath the pointer), the object being that the width of the central gap should represent the apparent width of a man (wearing full equipment), at the range indicated. This can be used as a medium for judging distance. M.P.21.



100 yds.

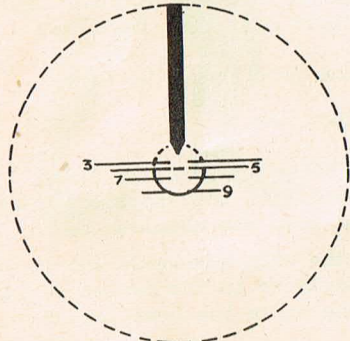


100 yds.



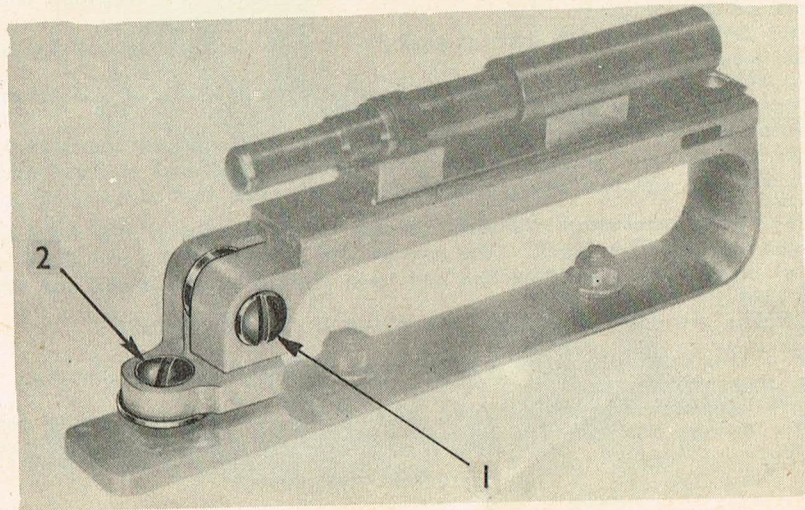
500 yds.

Correct aim at a figure target



500 yds.

Correct aim at a range target



ZEROING OF SIGHT

Fig. 6

for illustrative purposes only.

When the range to the target has been judged by the Firer, the appropriate point on the scale vertically beneath the pointer is brought to the centre of the target.

Aiming off for wind and movement should be done as usual.

SECTION 5

HOLDING, AIMING AND FIRING.

(a) As a self loading rifle. (fig.7)

Hold the weapon with the left hand, grasping it by the hand grip. Assume the lying position (fig.4). Use the right hand to assist movement. Extend the left arm to the front, magazine opening to the right, the weapon firmly grasped in the left hand and lying along the left fore-arm. The legs will be wide apart, body oblique to line of fire. Load weapon as taught. Apply the safety catch. On a Fire order being given, raise and set sights and press change stud (located above pistol grip) from left to right. Press safety catch forward and assume the firing position.

Aiming and Firing.

The right hand must be the master hand for every shot fired. The hold on the pistol grip should be firm and controlled and a steady pressure applied to the rear, bearing the weapon into the shoulder and locking it there. Whenever the butt is brought into the shoulder the fore-finger must take the first pressure on the trigger.

The left hand should form a support for the forward end of the weapon; the grip should be firm without causing strain.

No attempt should be made to pull the rifle into the shoulder with the left hand.

Position of the Butt.

Owing to the straight through reaction of this weapon there is a tendency for the orthodox firer when getting in the firing position, to use only the heel of the butt in contact with the shoulder. This must be guarded against and a conscious effort made to bed as much of the butt into the shoulder as possible.

The whole position is finally locked by the weight of the head pressing the chin downwards and to the right against the stock. The eye relief between sight and firer's eye should be in the region of 3-4".

The tripod for the rifle has now been formed by the chest and arms and the rifle has been locked on that tripod.

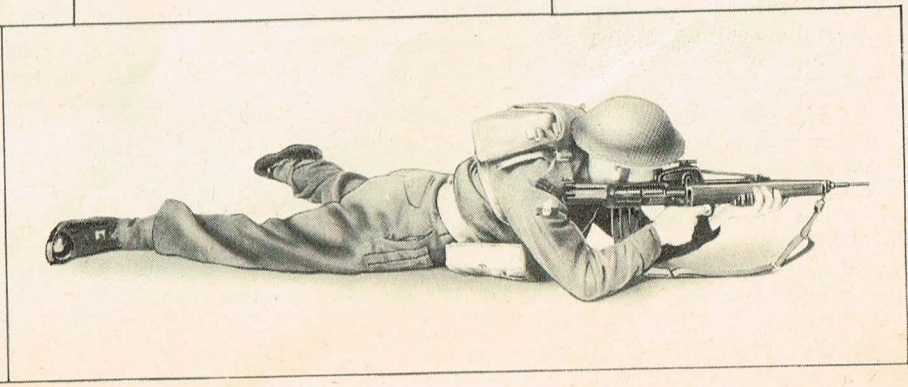
Aiming. As already taught (according to type of sight).

Firing.

On coming into the aim the firer must take the first pressure. Whilst concentrating on the target take an approximate aim.

Just before an accurate aim is taken breathing must be gently restrained.

The instance that the eye registers the correct aim the second pressure will be taken and the shot fired.



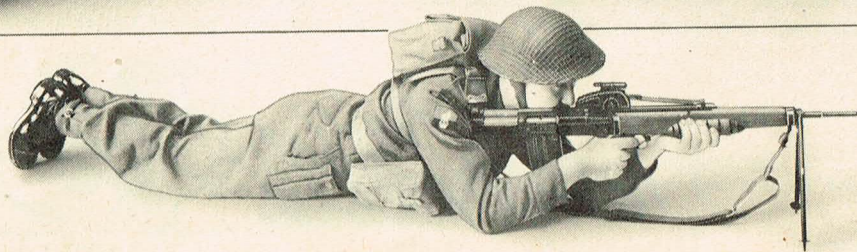
SELF LOADING RIFLE

Fig. 7

SUB MACHINE GUN



Fig. 8



LIGHT MACHINE GUN

Fig. 9

The hold and aim must be maintained at least until the bullet has left the barrel. In fact it is advisable that the firer follow through until the bullet has reached the target. Observe strike. Release pressure on the trigger cleanly and completely. The weapon has now fed another round into the chamber and the gun is cocked ready to fire this round. If it is required to fire another round the sequence is as before.

AIM - FIRE - OBSERVE - RE-AIM.

The slow rate of fire is 10 rounds per minute.

(b) Sub Machine Gun (fig.8)

Holding is of the first importance especially when firing in bursts. Correct holding can be gained only by experience in firing ball ammunition.

There are two positions for holding the Infantry Personal Weapon as a sub machine gun:-

- (i) At the waist.
- (ii) In the shoulder.

Holding at the waist.

(i) The left foot is advanced with the knee slightly bent, and the right leg braced; the weight of the body being balanced on the left foot. The right hand is on the pistol grip with the forefinger on the trigger; the left hand on the forward grip supporting the weapon. The butt of the weapon is pressed tightly against the side by the right arm. The left elbow is pulled back into the body and the complete weapon is thus clamped in its correct position so that when the body is turned to face an enemy the gun is instinctively aligned on to the target. Care must be taken that the right forearm is kept in its correct position in line with the pistol grip so as not to interfere with ejection.

Holding in the shoulder.

(ii) The position of the body and hands is the same as for holding at the waist; the right elbow is raised and the right shoulder pushed well forward into the butt with the left elbow almost under the weapon.

Firing

Owing to the speed with which single rounds can be fired and also the fact that the firer can correct on the strike, much more easily, greater accuracy is obtained by firing single rounds, and the need for economy of ammunition is met, so that single round firing will be employed wherever possible. Bursts should be reserved for extreme emergency and when used should be of two to three rounds only. In the role of machine carbine the weapon can be carried in any convenient position but when expecting to meet the enemy it should be held at the waist. Although the weapon can be fired whilst on the move greater accuracy is obtained by halting momentarily to do so. For targets at about 25 yards the weapon may be fired from the waist by sense of direction. For ranges above this and if time permits aim will be taken using the sight.

(c) As a light machine gun. (fig.9)

The gun when in the role of a light machine gun, will be fitted with a bipod. The weapon will be placed gently on the ground with the bipod upright and the butt of the gun resting on its left side bringing the magazine opening to the right.

M.P.21.

Position for Loading

The body straight behind gun, legs together, left hand holds forward grip; right hand holds pistol grip; first finger along trigger guard when butt is on the ground; load as taught.

Holding. Holding is most essential when the weapon is fired in this role as normally fire will be in bursts and although the weapon has little shock of recoil the automatic action of the gun when fired from the bipod sets up vibration which unless controlled, throws the gun off its alignment.

This control can only be effected by correct holding which is essential for accurate shooting.

Aiming position. (fig.9) Place left elbow on ground and hold forward grip with the left hand. Raise the butt and place the butt into the shoulder by moving body forward into the gun. Hold pistol grip in right hand exerting a downward and backwards pressure. Lock the gun into position by pressing the head against the stock with the eye in correct aiming position.

Firing. The normal rate of automatic fire is 20 rounds per minute fired in bursts of two to three rounds. In rapid fire this is stepped up to 60 rounds per minute. Correct holding must be maintained throughout each burst. After each burst observe the strike of the shoot with a minimum movement of the head and correct if necessary. The firer will always make allowance for side winds by applying the rules for aiming off.

Changing magazines. On a magazine being emptied the weapon will be swivelled on the bipod, bringing the magazine to the right. The magazine will be removed as taught and the full magazine inserted, which will release the holding open device and feed the first round into the chamber ready for firing.

SECTION 6

MECHANISM

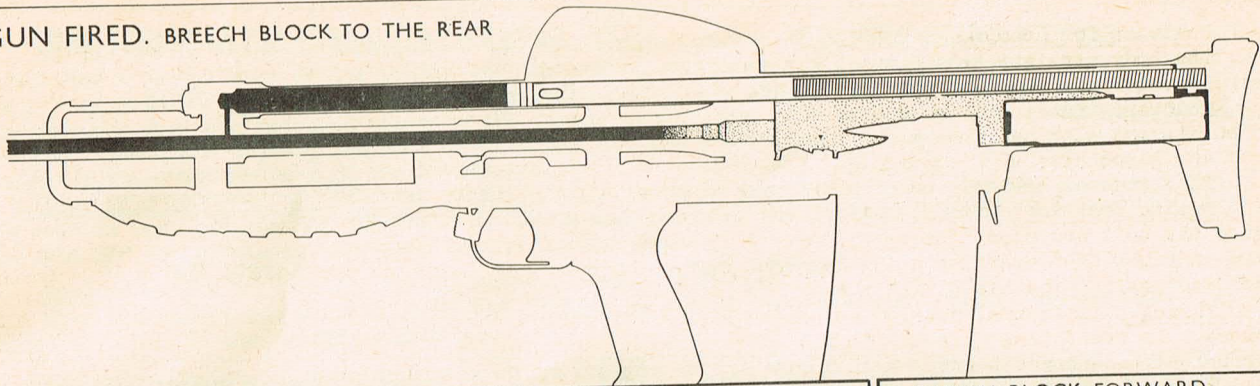
Backward Action.(fig.10)

Some of the gases following the bullet pass from the barrel through the gas regulator into the gas cylinder. This forces the piston to the rear and compresses the return spring until the piston comes to the end of its stroke. As the piston is secured to the firing pin sleeve within the breech block the initial movement of the piston withdraws the firing pin until the bent of the firing pin is engaged by the sear on the underside of the breech block. At the same time the faces on the firing pin, cam the locking lugs (illustrated in fig.13) out of engagement and thus release the breech block. The piston and breech block together are then carried to the rear.

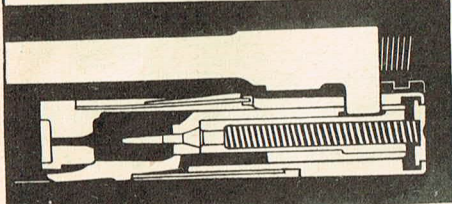
Forward Action. (fig.10)

The piston, having reached the end of its stroke, is forced forward by the return spring. A stud on the underside of the piston engaging with a spring projection on the top of the breech block carries the breech block with it. The face of the breech block meets the base of the first round in the magazine and forces it forward into the chamber, the extractor closing over the rim.

GUN FIRED. BREECH BLOCK TO THE REAR

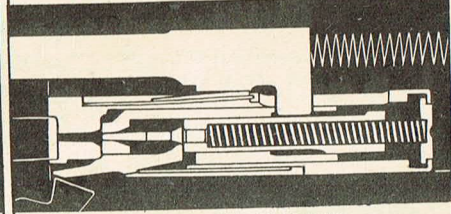


BRECH BLOCK TO THE REAR.



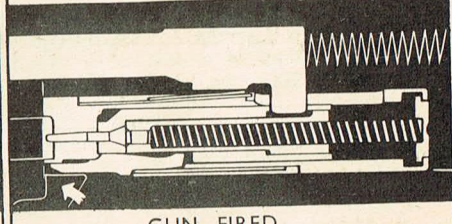
SHOWING COCKING ACTION.

BRECH BLOCK FORWARD.



FIRING PIN COCKED.

BRECH BLOCK FORWARD.



GUN FIRED.

CYCLE RE-COMMENCES.

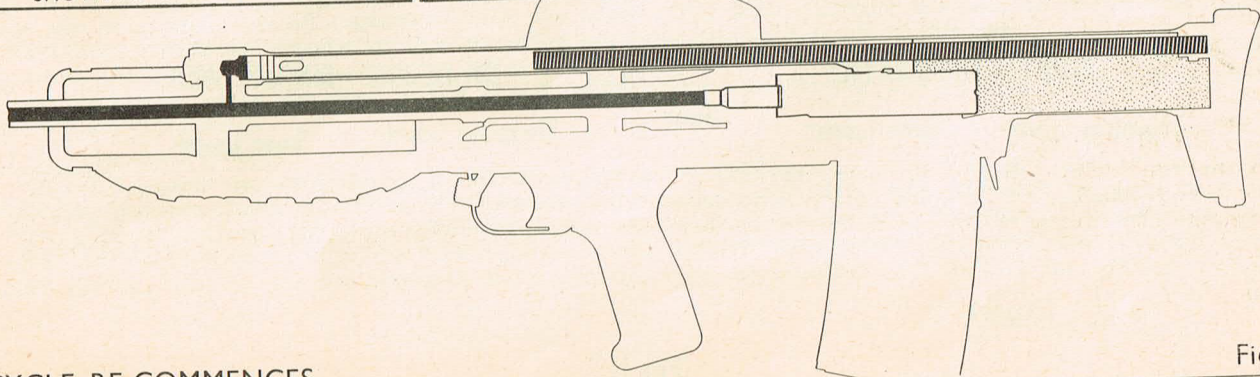


Fig.10

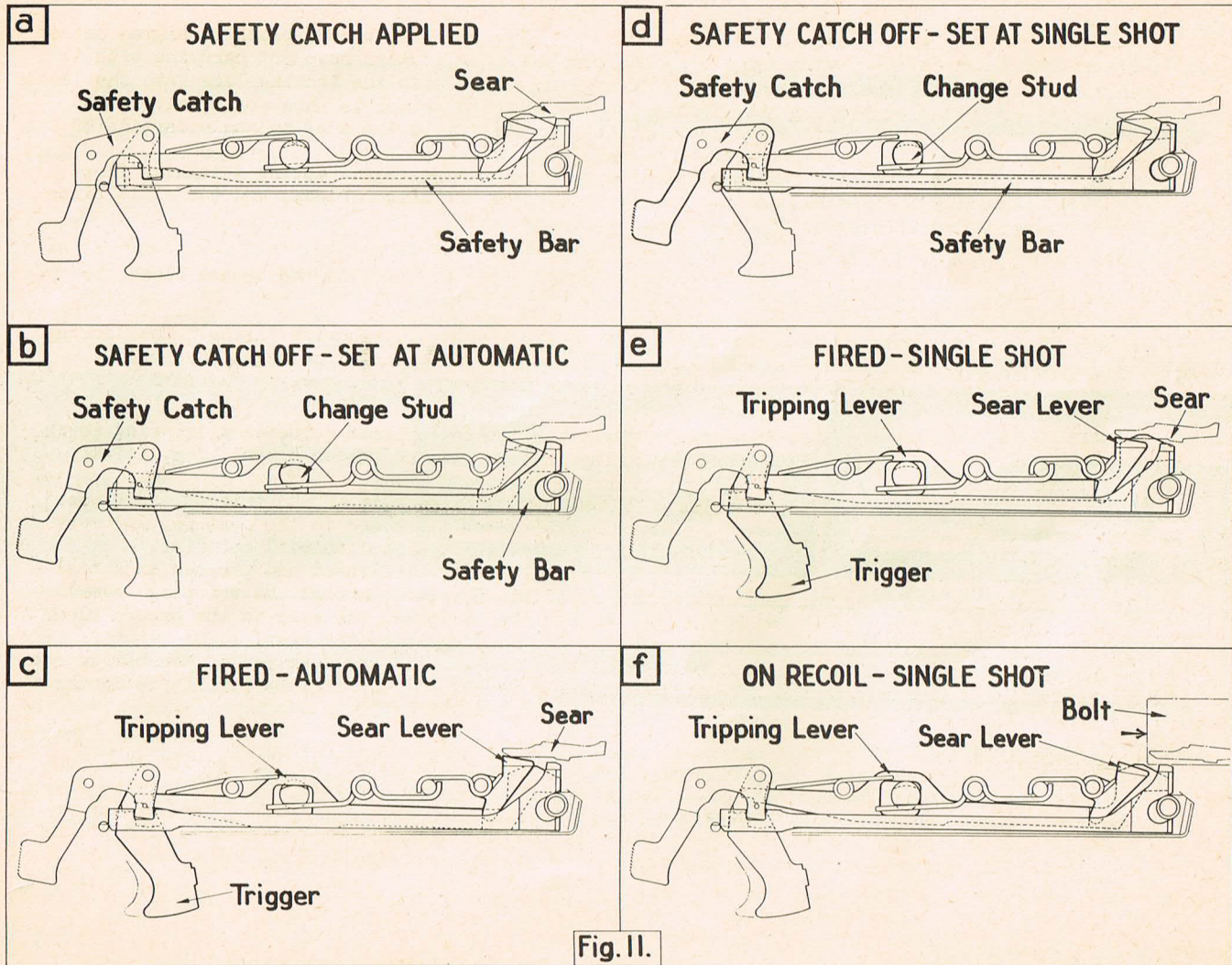


Fig. II.

As the breech block is arrested at the chamber the projection of the breech block is cammed out of engagement with the stop on the piston and the piston continues its forward movement carrying with it the firing pin sleeve. This last movement of the firing pin sleeve cams the locking lugs into the locked position and they are retained there by the firing pin sleeve. The action is thus positively locked, with the firing pin cocked, and held to the rear against its spring, by the sear on the underside of the breech engaging in the bent of the firing pin.

The rifle is fired off the sear during single round or repetition fire; during automatic fire the sear is kept permanently depressed in the locked position of the breech block, and the rifle fires straight off the retaining shoulders of the locking lugs.

Applied safety is provided by the safety catch. (Fig.11A)

When the safety catch is applied, the trigger is locked, and the sear, in the breech block, is locked by a bar in the trigger mechanism.

Mechanical safety is provided by positive locking of the breech block during firing. The locking lugs are provided by retaining shoulders which do not allow the firing pin to be released (even although the trigger is pressed), until the breech block is locked.

Trigger Action

With the change lever at "Automatic", (Fig.11B) pressure on the trigger actuates a tripping lever which in turn, rocks the sear lever into engagement with the sear in the breech block, (fig.11c) releasing the firing pin.

As long as the trigger is pressed, the gun will continue to fire, but, if the trigger is released, the bent of the firing pin will engage with the sear in the breech block and in the next forward movement, a round will be fed into the breech and the action will lock but the gun will not fire.

With the change lever at "Single shot" (11d), the trigger must be released and pressed each time a shot is to be fired (fig.11e), as the movement of the recoiling portion (through the tripping lever) trips the sear lever out of engagement with the sear (11f), thus allowing the sear in the breech block to re-assert itself and engage in the bent of the firing pin holding it to the rear.

With the safety catch applied the trigger is positively locked, and the rear end of the bar in the trigger mechanism locks the sear in the breech block thereby positively locking the firing pin in the breech block (fig.11A).

Holding Open Device

A holding open device (Fig.1)' is incorporated (with the magazine catch) in the body of the gun, behind the magazine opening. This device holds the working portions to the rear when an empty magazine, or no magazine is in the gun. On a full magazine being placed in the gun, the holding open device is pivoted out of engagement with the breech block, which is then driven forward, under the action of the return spring, feeding the top round in the magazine, into the chamber, and locking the action.

The gun is then ready to fire. If it is required to clear the gun, the magazine is removed and the cocking handle pulled to the rear. This will eject the unfired round and the recoiling portions will remain to the rear, held up on the holding open device. To release the holding open device from the breech block, press the magazine catch to the rear. This will allow the working portions to go forward, under the action of the return spring, and lock the action. Press the trigger and release the firing pin. The gun is now clear.

SECTION 7

IMMEDIATE ACTION.

1. If the gun is properly cared for, stoppages other than an empty magazine will rarely occur. Immediate action is the action performed by the firer to remedy a stoppage.

It must be carried out quickly, and with practice, should become instinctive. Immediate action is not complete until the gun has been re-aimed and fired.

2. If the gun fails to fire, or stops firing:-

Immediate action. Remove magazine; pull back cocking handle; release holding open device; pull back cocking handle; replace magazine; aim gun and fire.

Note: If cocking handle stops to the rear, it indicates, NOT a stoppage, but an empty magazine.

Immediate action. Remove empty magazine; replace full magazine; aim gun and fire.

SECTION 8

ELEMENTARY STRIPPING (FIG.12)

1. Remove magazine; cock gun; release holding open device; press trigger; the gun is now clear.

2. To Strip

- (a) Remove sling; hold gun at hand grip with left hand. Press butt retaining catch (1), swing butt to right until it disengages from the retaining stops, and withdraw butt, complete with return spring and rod(2).
- (b) Pull cocking handle (3) to rear and withdraw it from the piston. Withdraw breech block (4) and piston (5) from rear of gun. Detach piston from breech block.
- (c) To remove trigger group turn gun upside down, push out fixing pin (6) located in forward edge of magazine opening.
- (d) Slightly swing up rear end of trigger group (7) and withdraw by sliding rearwards.
- (e) When projections (8) on the trigger group are opposite cut away portions in the wood, lift out.
- (f) Unscrew the two screws (9), securing the furniture to the gun, withdraw the screws, and slide the barrel (10) out of the wooden hand guard(11).
- (g) To remove gas regulator (N.B. This must never be attempted until trigger group has been removed). Press the positioning stud (12) of the regulator (13) out of engagement with the gas cylinder (14), rotate the regulator until the positioning stud is horizontal and remove.

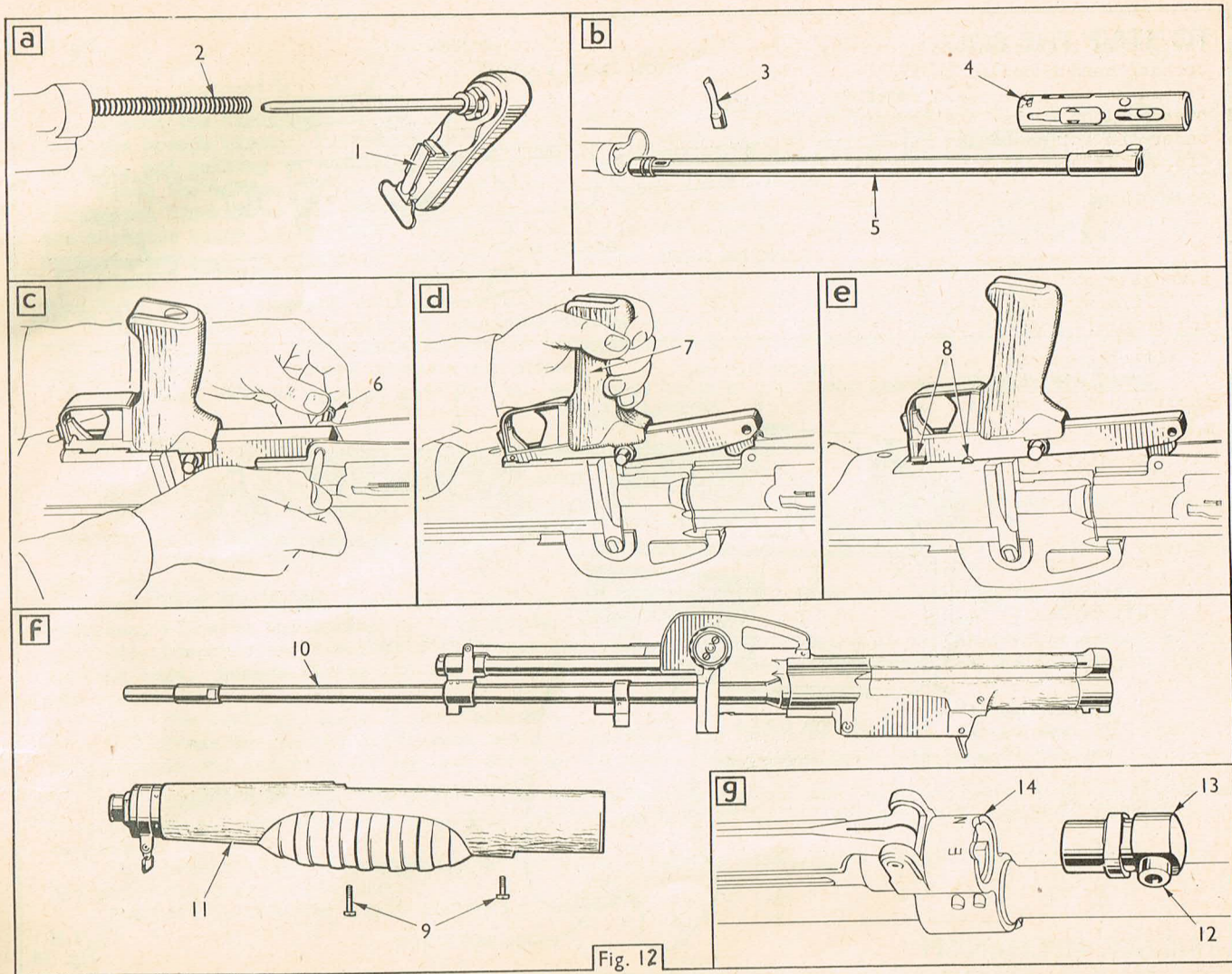
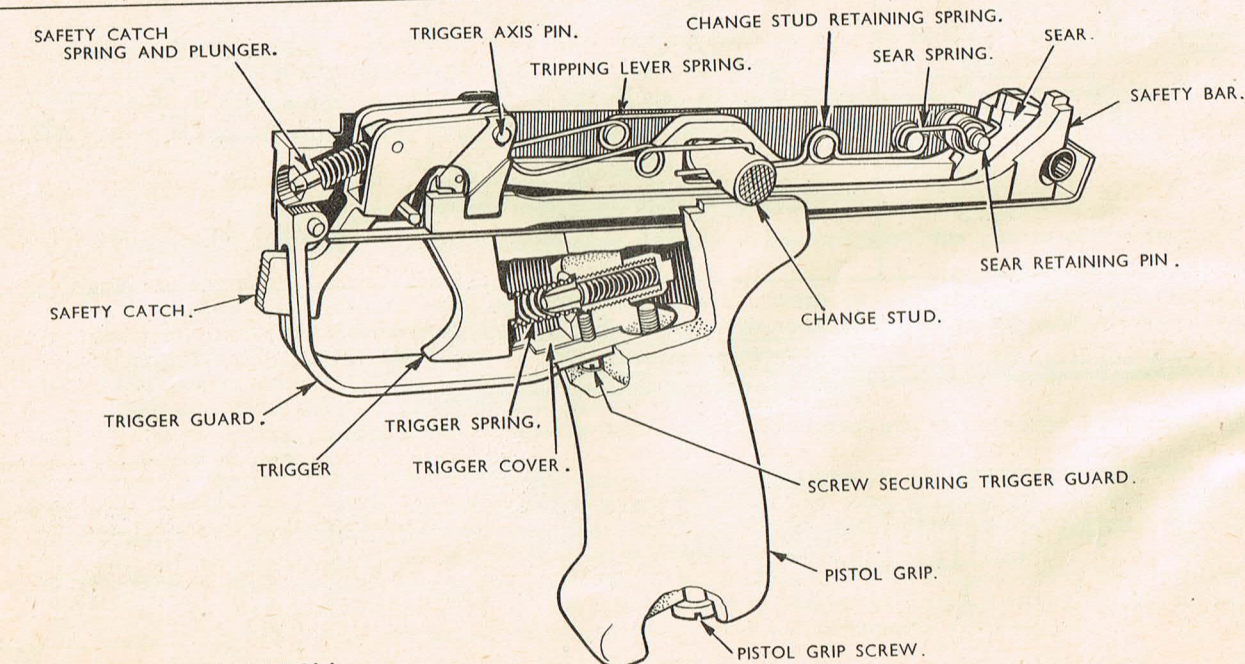
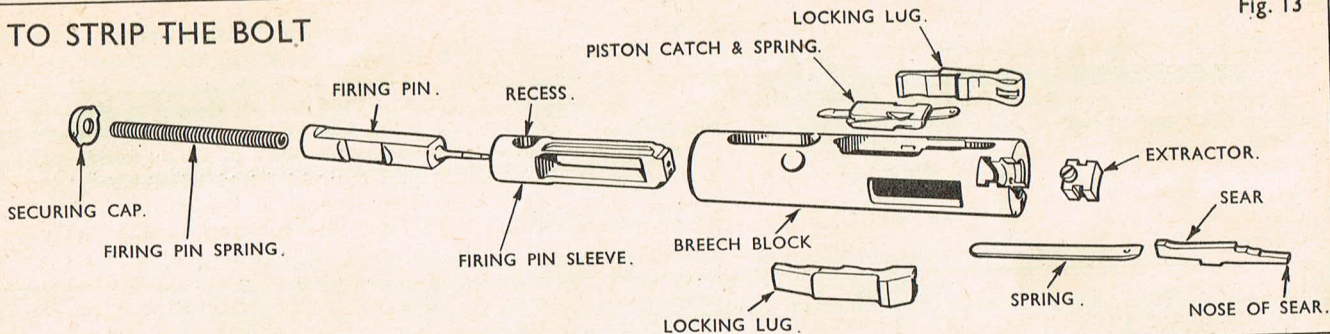


Fig. 13

TO STRIP THE BOLT



TRIGGER MECHANISM

Fig. 14

5. To assemble

Ensure the firing pin in the breech block is in the cocked position, thus collapsing the locking lug into the breech block. This is done by inserting the nose of a round into the recess in the firing pin carrier, and pulling to the rear until the sear snaps into engagement with the bent of the firing pin.

Place the bottom lug of the piston into the recess in the firing pin carrier, and slide the piston and breech block into the rear of the gun. Place cocking handle into the recess in the piston. Press the magazine catch to the rear, releasing the holding open device, and feed the cocking handle fully forward, locking the recoiling portions into the gun.

Place the return spring rod into the return spring, feed into the extension of the gas cylinder. When butt is fully forward turn down until the butt retaining catch engages in the body of the gun.

Turn gun upside down, replace trigger group by locating and sliding nose of group into the slot in the body of the gun. Bring hole in rear of trigger housing into alignment with hole in the body, and replace fixing pin.

Cock gun, release holding open device, and press trigger, to clear gun and check functioning.

SECTION 9

ADVANCED STRIPPING (FIG. 13)

To strip the bolt.

(a) Insert nose of bullet into recess in firing pin sleeve and push it forward until the locking lugs are in the locked position.

(b) Press up the nose of the sear, releasing the firing pin, and allowing it to protrude through the firing pin hole.

(c) With the thumb, press and turn the securing cap, until it disengages from the locking recesses, allowing the spring to be withdrawn.

(d) Insert nose of bullet into recess in firing pin sleeve, and pull to the rear, collapsing the locking lugs. Remove firing pin and firing pin sleeve from the bolt and withdraw the firing pin from its sleeve.

(e) The locking lugs will now fall out.

(f) Press the piston catch down until it is below the level of the bolt, insert nose of bullet into hole in the securing spring, and draw to the rear. The piston catch can then be removed from the bolt.

(g) Insert tool into the hole of the sear retaining spring, and raise it, until sear is disengaged from its spring; the sear will then drop out through body of bolt. Raise spring, and pull forward to remove.

(h) Insert small screwdriver into extractor retaining screw, give a half turn, and remove. The extractor can then be slid out.

The bolt is now completely stripped.

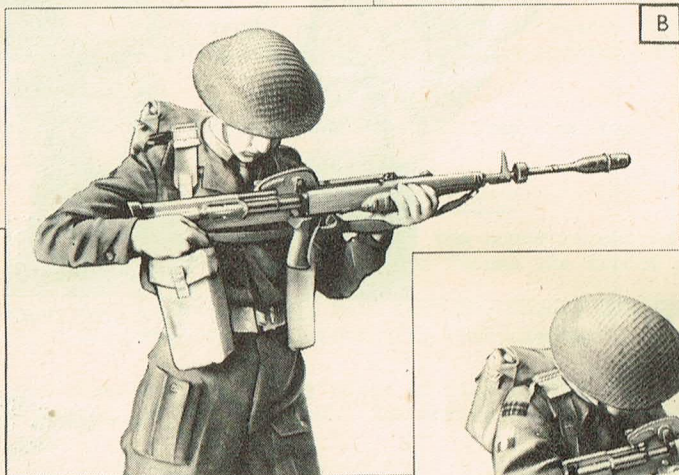
A

GRENADE FIRING

Fig. 16



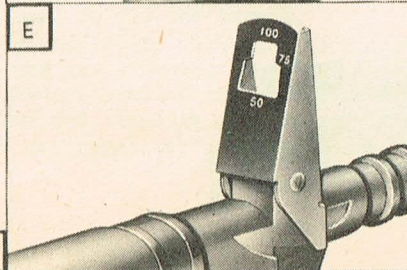
B



C



E



D



5. After firing

Strip completely. Clean barrel as for rifle, using boiling water if available, and gauze when necessary. Clean gas cylinder with cylinder cleaning rod, wire brush and mop. Clean with oily rag remaining parts; then dry, clean and slightly oil.

NOTE: In the absence of a cleaning rod, a pull through may be used, the weight inserted in the lower recess of the body, and dropped through the barrel.

In a similar way, this method may be used to clean the gas cylinder, after removal of the gas regulator.

SECTION 11

THE USE OF THE SLING (FIG. 15)

The sling may be used as a valuable aid to steadiness when firing single round or automatic fire.

Method

(a) Hold the rifle in the right hand, by the pistol grip; pass the left hand through the loop in the sling, from left to right.

(b) Then pass the left hand round the front part of the sling, in a clockwise direction, and grasp the rifle at the forward grip.

(c) Draw the rifle slightly back and with the right hand hitch the loop of the sling well up the left upper arm and assume the aiming position.

To adjust

It is important that the loop of the sling is adjusted to the correct length for the firer. If it is found to be too loose, tighten by sliding the metal clip on the loop towards the forward swivel on the rifle, and pick up slack on rear D piece. It will be found that when the sling is correctly adjusted for the firer, as an aid to steadiness, it will also be in adjustment for grenade firing.

SECTION 12

GRENADE FIRING (FIGS 16 AND 17)

In order to fire a grenade from the rifle, a projector will be attached to the rifle, which is then loaded with a grenade cartridge, and the grenade placed on the projector. On the grenade cartridge being fired, the grenade is discharged.

Description of Projector and Sights

The projector consists of a ribbed cylindrical steel tube, with a grenade retaining clip fastened between two of the rear ribs. On one end there is a bayonet type socket which is fitted with a spring catch, to retain the projector on the muzzle of the rifle.

NOTE: The grenade sight (fig. 16e) is superimposed on the projector, and consists of an arm slotted and shaped to give three ranges - 50-yards, 75-yards and 100-yards.

The complete sight can be raised and lowered, in the projector, and is held in position by a positioning stud.

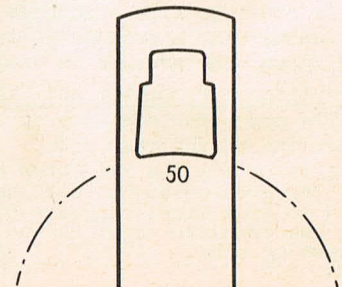
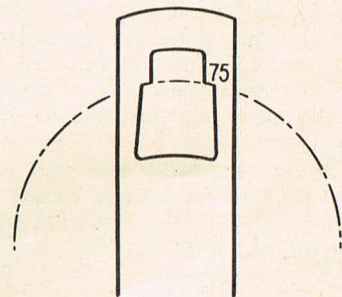
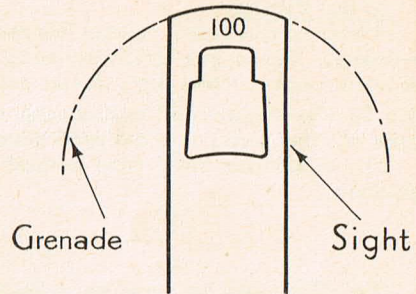
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GRENADE FIRING POSITION — KNEELING



Fig. 17

Use of Grenade sight — standing



To fit projector to gun

Hold weapon with one hand, and place projector on the rifle. Turn projector until the cut away portion in the projector coincides with the retaining lugs on the barrel. Press projector down firmly until it reaches its full extent of engagement (compressing the spring retaining catch) then turn projector until the spring catch re-asserts itself and snaps into position locking the projector on to the rifle.

To remove, raise catch with fore-finger and thumb to full extent, swivel projector to disengage it from retaining lugs, and withdraw.

To fire a grenade

1. Remove magazine and clear gun.
2. Attach projector to weapon as taught.
3. Cock gun, allowing the recoiling portion to be held up on the holding open device.
4. Load grenade cartridge direct into the breech by hand. (This is best done by tilting the magazine opening to the right and inserting the grenade cartridge direct into the breech, through the magazine opening.
5. Release holding open device and apply safety catch. (Test safety catch by holding muzzle of rifle in safe position and press trigger).
6. Load grenade on to projector, (Fig.16d) holding grenade by tail.
7. Raise sights.
8. Assume correct firing position by holding weapon with the right hand as pistol grip. Place left arm under the rifle and above the sling. (Fig.16a).

Pass the left hand round the front part of the sling in a clockwise direction and grasp the rifle at the forward grip. Draw the rifle slightly back and with the right hand place the sling across the upper part of the chest (Fig.16b) and finally lock the rifle into position by placing butt under right arm pit (Fig.16c). If the correct position has been assumed the weapon should be rigidly fixed, with the sling lying taut across the upper chest, and the butt held in position by the tension on the sling, and clamped into position, under the right arm pit by the right upper arm.

A firm grip should be maintained with the left hand.

To aim

Lower head until eye looks along the approximate line of sight of the rifle (Fig.16c).

Raise or lower the muzzle of the rifle until the silhouette of the grenade corresponds with the appropriate range circle on the sight.

The rifle is then at the correct elevation for that particular range.

For ranges over one hundred yards, depending on the cover and the firing position, the grenade may be fired as described above, estimating increased elevation to give the desired range, or the heel of the butt may be placed on the ground, the estimated tangent elevation applied to the gun (in relation to the ground), and the trigger pressed with the straight forefinger (Fig.17).