

# THE "HOME GUARD '300 RIFLE." P.17.

American Manufacture.

## With useful Training Programmes and Hints

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No. 6. Factory Bn.

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S.O.S. School.

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## INTRODUCTORY.

In offering this booklet I would explain that most of the lessons on the rifle were prepared in 1918 by myself and the staff of the First Army S.O.S. School which was founded by the Prince of all snipers, the late Major Hesketh Prichard, D.S.O., M.C.

Among others the lessons were taught to many excellent American snipers, and to some extent appear in the official U.S.A. handbook. On the other hand some of the diagrams appearing herein are copied from the official U.S.A. handbook.

I am also indebted to:—

1. The Controller of H.M. Stationery Office for his permission to publish.
2. The Commandant, The Small Arms School, Hythe Wing, Hythe, Kent, who has kindly had the work vetted, and has suggested several alterations calculated to bring the work "up to-date." These alterations are incorporated in this issue.
3. Major N. Armstrong, The Small Arms School, Bisley Camp, who has kindly expressed the opinion that "it could be adopted by all Headquarters of the Home Guard."
4. Tom Wintringham, Esq., of the Home Guard School, Osterley Park, who has kindly suggested four minor amendments now incorporated, and who has been kind enough to say:

"I have read it and shown it to other instructors who all consider it excellent. Will recommend it to members of the Home Guard."

5. The Commander, Home Guard, London District, who has been kind enough to say:

"There would appear to be nothing in it detrimental, but on the contrary much that may be useful."

6. The Secretary of the Society of Miniature Rifle Clubs, who has been kind enough to say:

"We think this little book is admirable and deserves wider circulation."

A large number of Home Guard Officers and N.C.Os. who have been kind enough to write and congratulate me on it.

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## PART I.

### THE .300 "HOME GUARD" RIFLE. P17. American Manufacture.

Since it now appears that all "Home Guards" will ultimately be equipped with this rifle I have considered it worth while to re-write in more detail my leaflet of 20/6/40, headed "The Enfield 1914 Pattern Rifle." Nevertheless, all that was said in that leaflet is applicable to what I have termed the "Home Guard" rifle, except that the latter has a bore of .300 only, fires a cartridge of the rimless type, and the fine adjustment has been dispensed with.

The rifle varies but little from the one designed at the Small Arms Factory prior to 1912, when the first instructions relating to it were issued. It was not, however, officially adopted, but during the Great War a few thousand specially selected weapons were fitted with Aldis Telescopic Sights, and its extreme accuracy was held in high esteem by all snipers fortunate enough to be armed with it. Subsequently the rifle, minus fine adjustment, wind gauge, dial sight and converted to a calibre of .300 taking rimless cartridges, became the official Army rifle in the United States of America under the title of "United States Rifle, Calibre .300, Model 1917."

It is this rifle with which this booklet deals, and though already the "Home Guard" are confusing issues by referring to the E.R.A.—the Eddystone—the Remington—the Springfield, etc., etc., rifle, it is the same rifle, the names merely indicating the factory by which it was made. Let us, therefore, simplify matters

by always referring to it as "The .300 Home Guard Rifle, American Manufacture, P.17," irrespective of which of the various companies made it.

### NAMES OF PARTS.

In all there are 86, of which nine are duplicates, but it is not necessary for anyone, other than armourers, to know them all, and I shall confine myself to those which members of the Home Guard must be able to recognise if they are to be efficient. In teaching names of parts I find it convenient to teach them in connection with the lessons in which a knowledge of them is necessary thus.

Taught during Rifle Instruction:—

- Fig. 1.**
1. Nose Cap.
  2. Bayonet Boss.
  3. Piling Swivel.
  4. Middle Band.
  5. Sling Swivel.
  6. Point of Balance.
  7. Magazine.
  8. Trigger Guard.
  9. Small of the Butt.
  10. Sling Swivel.
  11. Toe of the Butt.
  12. Heel of the Butt.
  13. Butt Plate.

### THE SIGHTS.

To be taught during Aiming Instruction:—

- Figs. 2 and 3.**
1. Leaf.
  2. Slide.
  3. Aperture.

4. Battle Sight.
5. Spring Catch.
6. Foresight Wings.
7. Foresight.
8. Sight Bed.

The rear of the body is made in the form of a bed in which the sight should always lie when not in use. In this position the aperture battle sight is in position, and is the one I recommend all Home Guards to use and to look upon as a "fixed sight." It is adjusted to hit "on" the aiming mark at 450 yards. If, therefore, we elect to use nothing but the battle sight and always use the centre of the target as the aiming mark, then by virtue of the fact that, up to 400 yards range, the rifle will be shooting a few inches high, then always within that range you are "on" your man's body. I do not think you will have need to operate beyond 400 yards, but if you do the following sight positions must be taught.

The sight leaf is hinged on the sight bed and is raised to an angle of about 90 degrees from the sight bed for use. There are in all four positions in which it will rest (see Fig. 2).

1. At an angle of about 45 degrees from the sight bed. This is the most convenient position for sight-setting.
2. At an angle of about 90 degrees. When **not** depending on the "Fixed Battle Sight" this is the position when in use.
3. At an angle of about 135 degrees.
4. At an angle of about 180 degrees.

These last two positions have been made possible to



avoid damaging the sight by accidentally knocking it, if raised, against undergrowth, etc., when skirmishing.

**Note.**—The bolt lever must not be raised and drawn back when the sight is in No. 4 position as this would damage the battle sight.

**Elevation.** Elevation is obtained by raising a slide on the leaf. This slide carries the aperture and, when set, is held in position by a spring catch adjustment on the right of the leaf. The leaf is graduated from 200 to 900 yards in hundreds of yards, and from 900 to 1,550 yards in fifties. The reading line is situated in the centre of the slide, **and care must be taken to point out this fact clearly or men are apt to take readings from the top or the bottom of the slide** (see Fig. 3). I repeat, however, that for all practical purposes our Home Guard can stick to the "Fixed Battle Sight" and not worry about elevations if only he will always aim at the centre of the target.

**Lateral Zero.** If there should be a lateral error the foresight can be moved as in the S.M.L.E., except that the cramp is made to fit over, and through, the foresight protectors, and, there being no nose cap to remove, it is a simpler operation.

**Vertical Error.** Serious vertical errors are adjusted by putting on a larger or smaller foresight and foresights are issued in several different heights to allow of this. It should be remembered that as we are correcting faults at the foresight end we must always adjust in the direction of the error, i.e., if shooting

to the right the foresight must be moved to the right. If shooting high a higher foresight must be used.

### AIM—HOW TAKEN.

The diagram will illustrate far better than a word picture how aim should be taken. The main thing is to look **through** and **not AT** the aperture. See sights are upright. Close the left eye. Look through the aperture at the target. Align the top of the foresight on the centre of the target, the point of contact thus made being in the centre of the field of view through the aperture. With the sights thus aligned look at the target.

(**Note.**—It will be found that with very little practice the eye will instinctively centre the foresight, and that aiming, with this sight, will in reality simply be the action of holding the tip of the foresight on to the aiming mark.) (See Fig. 3.)

### THE MAGAZINE.

The magazine holds five rounds only, and is constructed in such a manner as to permit the magazine platform to rise and engage the bolt head when the magazine is empty. This effectively advertises the fact that "re-loading" is necessary, at the same time it prevents giving training in "bolt manipulation" unless "Depressor Magazine Platform" or a coin such as a shilling be used to hold down the platform, thus enabling the bolt to pass freely through the boltway when the magazine is empty.

It is of simple construction, consisting of three parts only: the platform, the spring and the bottom plate.

To remove: press the point of a bullet into the hole that will be found in the bottom plate in front of the trigger guard. Now push downward and in the direction of the trigger, this releases the spring and allows the magazine to be removed and cleaned. To replace: reverse the above process. Care must be taken when loading to ensure that the charger is placed vertically in the charger-guide. If allowed to lean forward the first cartridge will foul the padding of the magazine and loading will become difficult.

There is little possibility of a jam if the boltway, the breech and the magazine are kept clean.

#### **THE BOLT AND BODY.**

Names of parts to be taught during the lesson on "Action of the Mechanism."

##### **The Bolt. Fig. 4.**

1. Extractor Hook.
2. Locking Lug.
3. Slotted Locking Lug.
4. Extractor Collar.
5. Gas Escapes.
6. Clearance.
7. Extractor Cam.
8. Locking Piece Lug.
9. Cocking Piece.
10. Sleeve.
11. Half Cocking Cam.

##### **The Body Complete. Fig. 5.**

1. Sear Nose.
2. Sear Notch.
3. Cocking Piece.
4. Sleeve.

5. Receiver.
6. Extractor Cam.
8. Interlock Slot.
9. Sear Spring.
10. Sear.
11. Bolt.
12. Striker.
13. Cartridge Ramp.
14. Extractor Collar.
15. Locking Lugs.
16. Barrel.
17. Rear Handguard.
18. Recoil Lug.
19. Cartridge.
20. Main Spring.
21. Trigger.
22. Safety Stud.

#### **ACTION OF THE MECHANISM.**

Let us start with some cartridges in the magazine and with the bolt drawn back.

The magazine spring has ensured that the base of the top cartridge in the magazine will foul the face of the bolt. If that is pushed forward it forces the top cartridge forward over the cartridge ramp and the extractor hook engages the cartridge case.

Next, the sear notch in the cocking piece comes in contact with the sear nose, holding it stationary, and as the bolt continues forward the main spring which is wound around the striker is compressed,

When starting to turn the bolt lever down the locking lugs engage the locking cams and, moving forward, completely seals the breech and completes the compression of the main spring. At the same time the rotation of the bolt took the half cocking cam out of the path of the cocking piece lug, and the bolt lever having ridden into the slot on the right of the body is now ready to take the shock of discharge if by any chance the locking lugs fail in their job.

The action is now fully locked and the mainspring is held compressed by the sear nose retarding the cocking piece.

If, now, the trigger be pressed its bearing first acts on the bearing of the receiver thus depressing the sear nose (1st pressure), next the heel of the trigger contacts the receiver (2nd pressure), and ends in the release of the cocking piece which allows the mainspring to carry the striker forward on to the cap. (Note.—As the sear nose is depressed the safety stud rises and enters the interlock slot. This is a safety measure, as if the action be not fully sealed they will not coincide and the trigger cannot be pressed.)

Next, assume that the cartridge has been fired. By raising the bolt lever we rotate the bolt to the left. As, however, the cocking piece cannot rotate it is forced to the rear by the half cocking cam and engages the half-cock notch. This action is necessary as a preliminary to primary extraction, as it withdraws the striker and prevents damage thereto. When the

locking lugs on the bolt clear the locking cams and the safety lug on the bolt clears the shoulder of the slot on the right of the body the extractor cams on the bolt and receiver combine during the rotation of the bolt to partially withdraw it, thus effecting primary extraction. The extractor and the sleeve are both prevented from rotating with the bolt by the receiver.

The turning movement of the bolt is ended when the bolt lever contacts the sight bed, the locking lugs then being in a horizontal position. If the bolt be now drawn to the rear the extractor brings with it the empty cartridge case, and as the bolt travels backward the cocking piece rides over the sear nose and depresses it, meanwhile the safety stud rises into the clearance on the bolt. Immediately the cocking piece clears the sear nose the sear spring raises the sear to its normal position.

When the rear end of the slotted locking lug (now on the left) reaches the ejector the latter passes through the slot, contacts the rear of the empty cartridge case and ejects it to the right.

## SAFETY DEVICES.

1. **The Safety Stud** and interlock slot, the functions of which I have described in "The Action of the Mechanism."

2. **Gas Escapes.** Of these there are three. On the right of the hood and on the underside of the bolt, one in front and one in rear of the extractor ring.

They perform the same duties as in the S.M.L.E., except that the one in front of the extractor ring prevents air-pockets—which would act as a brake—from forming.

3. **Bolt Lever.** This when turned down, i.e., when the breech is closed, fits into a recess in the body of the rifle, and ensures that the bolt cannot be blown back, even should the "resisting lugs" give way.

4. **The Safety Catch.** This is similar to the S.M.L.E. but is on the opposite side, i.e., the right side of the body. If the thumb piece be turned to the rear it performs two actions.

- (a) Rotates a half moon on the eccentric stem until it engages in the recess in the cocking-piece, thus preventing the cocking-piece, and with it the striker, from going forward if the trigger be accidentally pressed.
- (b) Pushes forward the locking bolt plunger until it is engaged in the locking-bolt recess in the bolt-lever, thus preventing the rotation of the bolt.

#### **PULL-OFF.**

This is slightly different to that of the S.M.L.E., the first pressure being from two to three pounds and the second from five to six pounds. The first pressure is a comparatively long creeping movement, and it is necessary to obtain by practice the correct "trigger squeeze" before firing the rifle for the first time.

#### **GENERAL INFORMATION.**

**Bore.** .300.

**Grooves.** Five uniform left-handed; one turn in every ten inches.

**Length.** Complete, without bayonet, about 3ft. 10in.

**Weight.** Complete without bayonet, about 9 lbs. 3 ozs.

**Muzzle Velocity.** 2,700 feet per second.

**Pressure in Chamber on discharge.** About 51,000 lbs. per square inch.

**Powder Charge.** 50 grains of pyrocellulose composition.

**The Bullet.** Has a core of lead and tin within a cupro nickel envelope.

**The Cap or Primer.** Carries a composition of ter-sulphide of antimony, potassium chlorate and sulphur.

#### **CARE OF AND CLEANING.**

In order to get the best from this accurate shooting rifle, it is essential that it be kept absolutely clean. The following should receive special attention:—

**The Bore** must always carry a high polish.

**The Sights** must be kept free from oil and the aperture free of fluff.

**The Hood** must always be free of oil and dirt, as it contains the recesses in which the resisting lugs work and if dirt gathers there the shock of discharge cannot be taken evenly and accuracy is sacrificed.

**The Breech** must be kept clean and free from oil.

**The Bolt** must be clean and slightly oiled and should be the one specially fitted to the rifle.



**Ammunition.** The cartridges must not be allowed to become oily or greasy otherwise correct "seizing" in the chamber is prevented and a blow-back is likely. If a blow back occurs driving power is lost, muzzle velocity decreased, and accuracy sacrificed.

**Warped Woodwork.** The fore-end of the rifle is fitted so as not to influence the rifle barrel when firing, i.e., the barrel must be able to resume its original position and lie perfectly flat following the vibrations consequent upon each and every shot. If the fore-end is warped, and warped fore-ends are quite common, the barrel does not return to the same position and erratic shooting results. The causes of warped fore-ends are as follows:—

- (a) Wet entering between barrel and fore-end.
- (b) Dry woodwork.
- (c) Unequal dryness such as is caused by the rifle lying in a hot sun or in front of a fire.
- (d) Twisting of wood through insufficient seasoning before use.

The troubles may be prevented by oiling all woodwork daily in such a manner as to ensure that the oil penetrates between the handguards, fore-ends and barrel. **To Cure.**—The armourer or other qualified person must refit the fore-end.

#### **PULLTHRO'.**

In most rifles a combined oil-bottle and pullthro' will be found in the butt trap. The pullthro' must always be drawn through in line with the axis of the bore, and petroleum jelly or M80 oil should be the only lubricant used.

## **PART II.**

### **SUGGESTIONS re TRAINING.**

We are a Company belonging to a Factory Battalion and, generally, our "Fields of Fire," "View" and "Action" are strictly limited. Our programme should be drawn up with these facts in mind, though it must eventually be extended to include such subjects as "Visual Training," "Judging Distance," "Fire Control," "Use of Ground and Cover," etc., since we must be prepared in a military emergency to act outside our factory bounds.

Also, since in the event of enemy occupation of the area where we operate we must "stay put," it behoves us to become adept in sabotage, secretion of weapons, "Rough House" and "all in" methods of fighting. In short, under such circumstances within the occupied territory we must be prepared to do as much damage to life (of the enemy) and productive capacity as possible and in every way to hinder and harass his administration. These latter methods are being taught most efficiently at "Osterley Park," and as we shall avail ourselves of these courses from time to time I propose to restrict these suggestions to staid military subjects.

If only for the sake of keeping the men's interest alive, I suggest that during the long winter evenings the following rifle exercises—detail for which follows—be taught.

**"Shoulder Arms"** (2 movements). Pending the order to "fall in," men to move about the parade

ground at the "shoulder," and not some at short trail, slope, trail or slung position.

**"Slope Arms"** (3 movements). Parties will always move off, walk beat as sentries, and march to attention "at the slope."

**"Order Arms"** (2 movements). From shoulder.

**"Order Arms"** (3 movements). From slope.

**"Present Arms"** (3 movements). Only to be used when Officers of Field Rank (Major or the equivalent upward) are to be saluted. In all other cases the compliment is paid at the slope by bringing the right hand, with fingers extended, smartly to the small of the butt. Other compliments are, on march: "Eyes Right" or "Eyes Left" to any body of troops or Officers, irrespective of rank, the compliment having been preceded by "March at Attention." No compliments to be paid after sunset.

**"Slope from Present"** (2 movements).

**"Trail Arms"** (1 movement from Fall-in position, 2 from Slope Arms). Can be used on the march and by patrols. Will always be used in extended order, or when in line, preparatory to advancing to fire position.

**"Order Arms from Trail"** (1 movement).

Since "fixing the bayonet" always turns an accurate weapon into an inaccurate one, we do not propose to teach its "fixing."

#### DETAIL FOR RIFLE EXERCISES.

**SLOPE ARMS from Order** (3 movements).

**1st Movement.** Throw the rifle up into the right

side and catch it with the left hand at the middle band. The right hand simultaneously seizes the rifle at the small of the butt, thumb on the inside, fingers on the outside pointing downwards. Right elbow to the rear with left elbow and forearm held closely across the body. At the finish of the movement the rifle should be held firmly in a vertical position in the right side.

**2nd Movement. Without moving the head.** Carry the rifle across the body and place the magazine on the left shoulder pointing outwards. Simultaneously seize the rifle firmly around the small of the butt with the right hand and carry the left hand to the butt plate. At the finish of the movement the heel of the butt should be in line with the centre of the left thigh, forearm horizontal, left thumb one inch from the toe of the butt and the first two joints of the fingers around the butt plate.

**3rd Movement.** Cut the right hand smartly away to the side. At the finish of the movement the position of the rifle and left arm is as shown in 2nd Movement, and the thumb of the right hand is behind the seam of the right trouser leg, the fingers being pointed but not stretched downwards.

**ORDER ARMS from Slope** (3 movements).

**1st Movement. Without moving the head** bring the rifle smartly down on the left side to the full extent of the left arm, and seize it firmly with the right hand at the middle band, which should be in line with the point of the left shoulder. At the finish of the movement, the left arm should be at its full extent; and

the right forearm and elbow across and close to the body.

**2nd Movement.** Without moving the head carry the rifle with the right hand across the body to the right side, simultaneously checking (don't grasp) it at the nose-cap with the left hand. At the finish of the movement the thumb and fingers of the left hand should be extended across the nose-cap, the whole weight of the rifle being taken by the right hand. The toe of the butt should be in line with the toe of the right boot and the butt should be about one inch from the ground.

**3rd Movement.** Place the butt quietly on the ground (every time you bang it you risk "debedding" the barrel and destroying the rifle's accuracy). At the same time cut the left hand to the left side with thumb behind the seam of the trousers and fingers pointing but not stretched downwards.

#### **SHOULDER ARMS from Order (2 movements).**

**1st Movement.** Throw the rifle up into the right side as in the slope, but instead of catching it at the small of the butt slip the second finger of the right hand through the trigger guard, thus taking the whole weight of the rifle.

**2nd Movement.** Cut the left hand smartly to the left side. At the finish of the movement the right arm should be at its full extent and close to the right side. The elbow should point to the rear and rifle be held snugly into the right side.

#### **ORDER ARMS from Shoulder (2 movements).**

**1st Movement.** Slip the finger out of the trigger guard and allow the rifle to slide down the right side, catching it again with the right hand at the middle band. Simultaneously check it at the nose-cap as in the second movement of Order Arms from the Slope.

**2nd Movement.** As for the 3rd Movement of Order Arms from the Slope.

#### **PRESENT ARMS from Slope (3 movements).**

**1st Movement.** Without moving the rifle or the head seize the small of the butt firmly with the right hand, keeping the right elbow close to the body.

**2nd Movement.** With the right hand carry the rifle to an upright position in the centre and in front of the body, magazine to be in line with the chin and pointing to the left. Simultaneously, carry the palm of the left hand smartly to the magazine, thumb and fingers of the left hand stretched and pointing upward.

**3rd Movement.** Lower the rifle in front of the centre of the body to the full extent of the right arm, turning the magazine to the front. Simultaneously—

- (a) Slip the left hand from the magazine to the middle band, fingers around the rifle, thumb on the left and pointing upward.
- (b) Draw back the right foot and place its hollow smartly against the heel of the left foot.

At the finish of the movement the rifle is held perfectly upright in front of the centre of the body with the

magazine to the front. The weight of the rifle is taken by the left hand at the middle band. The right arm is at its full extent and the thumb is on the left of the small of the butt. The right fingers are fully extended and pointing downwards.

#### **SLOPE ARMS from Present (2 movements).**

**1st Movement.** Place the rifle smartly on the left shoulder as in the 2nd Movement of the Slope from the Order, and simultaneously bring the right foot forward bringing the heels smartly together.

**2nd Movement.** Exactly as for the 3rd Movement of the Slope from the Order.

#### **TRAIL ARMS from Order (1 movement).**

Throw the muzzle of the rifle smartly forward and catch it firmly with the right hand at the rear hand guard. It must be checked at once and not allowed to dip either at the muzzle or the butt. At the finish of the movement the rifle is parallel with the ground and is grasped firmly with the right hand, the thumb of which is in rear of the seam in the right trouser leg.

#### **ORDER ARMS from Trail (1 movement).**

Allow the butt to fall downward and forward. Simultaneously, catch it at the middle band and assume the correct position of Order Arms.

#### **TRAIL ARMS from Slope (2 movements).**

**1st Movement.** Seize the rifle firmly with the right hand at the rear-hand guard, keeping the right elbow close to the body.

**2nd Movement.** Without moving the head carry the rifle across the body to the correct position of the Trail.

As distinct from Rifle Exercises, all Musketry positions, including "Port Arms," must be carefully taught.

A brief outline of the training I have in mind is as follows:—

**Foot Drill.** To give confidence, cohesion, poise and fitness.

**Weapon Training.** A thorough grounding in the elementary stages culminating in standard Tests.

**Application of knowledge** gained in elementary musketry training by each man firing at least one grouping practice, and one application on the open range.

"Taking Post" with careful instruction as to orders for Post, **most particularly procedure when challenging.**

**Rifle Exercises.** To enable units to take their place in any parade without awkwardness.

**Patrolling**—with use of Ground and Cover, which in our case means knowing our area by heart, and acquiring the ability to encircle any danger zone quickly, using the multitudinous cover en route, different routes, small parties, prearranged signals as to progress, and having a clear understanding of orders



which must always precede "Fire Action."

**Reports and Messages.** As far as is possible recognised standard forms of report will be taught.

Before framing a suggested programme of weapon training for factory Home Guards it is perhaps as well to define what is meant by "weapon training" in their case since, after all, it is this that should govern their training.

I should define it as follows:—"The ability on their part to handle loaded small arms of all kinds, at all times, with a minimum of danger to their comrades and themselves, but with a maximum effect against the enemy up to, say, 400 yards range."

It is, of course, vital that managements site their static rifle posts in such positions as to ensure that the enemy can be engaged at ranges "outside" the "effective range" of the usual Tommy Gun, Squirt Guns and Automatic Pistols.

The "effective" ranges of these favourite bandit weapons are as follows:—

- |  |     |     |           |
|--|-----|-----|-----------|
| I. .38 or .455 Pistols                                       | ... | ... | 50 yards  |
| II. German Automatic Pistols                                 | ... | ... | 50 yards  |
| III. Sub Machine Guns, such as the Thomson Sub Machine Gun:  |     |     |           |
| (a) Fired from waist or hip                                  | ... | ... | 50 yards  |
| (b) Fired through sights from the shoulder by an average man | ... | ... | 100 yards |

I deem a knowledge of these effective ranges of vital importance to Home Guards since—

(a) For Factory Battalions against such weapons we have an ideal defence if we have static posts with "fields of view" up to 100 yards and, in the absence of rifles, have plenty of shot guns and buck shot.

(b) For Open Battalions. If we can control our blocks from natural cover up to 300 yards **away from the block** by riflemen, or fixed rifles, spread fanwise, then we can engage and dispose of the opposition before they get within range. We must not forget that once we allow them to get within range their superior fire power gives them the advantage, and for this reason it will generally be wrong to defend a road block **from the road block** since, if properly sited, the enemy will come upon it suddenly without a chance of detouring it and will thus be **within range**.

We should also keep in mind the following two points, full appreciation of which can considerably shorten our programme without loss of efficiency.

1. We shall never be called upon to operate beyond 400 yards range in our confined areas. This allows us to adopt a "fixed battle sight." At least the Ross, the P 14 and the Home Guard .300 rifle (all of which have been issued to Home Guards in this area) have a "fixed battle sight" which is "on" at 400 or 450 yards range.

Again, within the range and confined space at which we will be called upon to operate, the effect of "wind"

and "drift" will not be sufficient to take our bullet "off the body." Thus, if we insist upon "fixed sights" with a "regulation aim" we need not teach the intricacies of "Fine Adjustment," "Wind Gauge," "Drift," "Trajectory" (since for all practical purposes this is flat at our ranges), nor "Judging Distance," since theoretically we shall always be "on" an upright body, the only difference being in the part of the body struck by the bullet, i.e., at the closer ranges we shall be hitting the body higher up. If the body is prone, then within the 400 yards range we must aim "down" or "in front of" it, and this will give a possible value to a ricochet, even if the shot were a poor one.

2. Many of the members are old ex-service men who require a short refresher course only, and this could well start with the triangular test for consistency followed by a grouping practice, since if a man at once attains the standard of qualification it would be a waste of instructors, rifles, and other equipment to include him in the classes while other students were needing the training to enable them to qualify.

Subject to the above two points, the following is submitted as a suitable programme of training. Lessons are varied as much as possible with a view to avoiding physical tiredness or boredom.

Subject.	Total number of Hours.
1. Names of Parts and Mechanism ... ..	3
2. Trigger Pressing and Breathing ... ..	2
3. Aiming Instruction ... ..	6
4. Cleaning and Care of Arms ... ..	2
5. Firing Instruction—all positions including Muscle Exercises ... ..	9
6. Use of Fixed Sights ... ..	1
7. Use of Cover—(a) From View—(b) From Fire ... ..	3
8. Snap Shooting ... ..	3½
9. Fire and Manoeuvre (i.e., Ability to get to any given point within the area in the quickest possible time by the best covered route) ... ..	5
	<hr/> 34½ <hr/>

34½ hours = 2,070 minutes,  
or 23 Lessons of 90 minutes each.

After these Lessons students should be ready for miniature or open 30 yards range, where they will spend the time necessary to qualify in one grouping and one application practice.

The 34½ hours could profitably be laid out as follows:—

	SUBJECT NUMBERS								
	1	2	3	4	5	6	7	8	9
	TIME IN MINUTES								
	TOTAL								
1st Lesson	10	20	20	20	20				90
2nd "	10	20	30		30				90
3rd "	10	20	20	20	20				90
4th "	10	20	30		20	10			90
5th "	10	20	20	20				20	90
6th "	10	20	30		30				90
7th "	10		30	20	30				90
8th "	10		30	20	30				90
9th "	10		30	20			20	10	90
10th "	10		30		30			20	90
11th "	10		30		30		20		90
12th "	10		30		30			20	90
13th "	10				30	10	20	20	90
14th "	10				30	10		20	90
15th "	10				20		20	20	90
16th "	10				20		20	20	90
17th "	10				20	10	20	20	90
18th "	10		20				20	20	90
19th "					30	10		20	90
20th "			10		30		20	30	90
21st "					30	10		20	90
22nd "					30		20	40	90
23rd "					30			20	90
	180	120	360	120	540	60	180	210	300

## ELEMENTARY AIMING AND FIRING INSTRUCTIONS.

In all stages aiming and firing instructions is taught generally by—

- 1. Explanation.** Explain carefully what you wish to achieve.

- 2. Illustration.** Illustrate by means of diagrams and demonstration of correct positions by Instructor.
- 3. Imitation.** In which the student endeavours to copy the Instructor on the diagrams.
- 4. Interrogation.** Ask the student why do this and that, etc., ensuring by his answers that he has absorbed the lesson.

In all aiming Instruction the Student must verbally declare the point of Aim, i.e., "a little high," "a little right," "six o'clock," etc., etc. Explain thoroughly the use of the sights, what elevation is and the fact that the sights must work in unison.

Now make the students adjust their sights to 400 yards and check each man's setting individually, insisting on absolute accuracy. (Remember, we are going to stick to 400 yards as a fixed battle sight because our fields of fire are strictly limited.)

From aiming rest and tripods Instructor lays a correct aim, calling attention to the correct position of the eye (about one inch above the heel of the butt). Students now imitate the Instructor's aim, absolute accuracy being insisted on at this stage and aim being taken at the centre of the target.

Explain that a medium or fine sight will strike three and five inches lower respectively at 100 yards.

Continue with students laying aims from rests until they can aim with absolute accuracy, checking, demonstrating, and correcting aiming faults as they arise.

To test for correct regulation aim make the student lay an aim.

**To test accuracy and consistency.** Use No. 3 Test of Elementary Training which is as follows:—

The test will be carried out from aiming rests. Aims will be laid at:—

- (a) Small target 200 yards (two aims).
- (b) Figure 3 silhouette 200 yards (two aims). On the figure targets the aim will be considered correct if it is approximate to the centre of the target.

Standard—Three aims correct out of four.

Teach thoroughly the loading and aiming position standing, and at this stage the muscle exercises can be introduced with advantage, their benefits being:—

**1st Practice.** Trains the muscles to lift the butt into the correct position in the shoulder and teaches the student to bring the rifle to the aiming position quickly and instinctively.

**2nd Practice.** To strengthen the grip of either hand.

**3rd Practice.** To train the muscles to maintain the rifle in the aiming position.

As students become efficient in laying aims they can be passed on to—

(a) Miniature range.

(b) Practice in rapid aiming.

On the miniature range shooting will be preceded by demonstrations in trigger pressing and breathing. It will always commence with a grouping practice over the open sights.

For the works Home Guard the writer has set the

following standard of qualification. At least four of the five shots must be contained in a two-inch ring.

Practice in rapid aiming can best be got by means of the aiming disc. The Instructor lies down four paces in front of the student, **who does not use dummies**, and checks the aim by looking through the disc, aim being taken at the bullseye having the hole at 6 o'clock. The student must always declare the point of aim and practice must be carried on until the student is able to get off a well aimed shot in four seconds. The elementary stage is conveniently ended by firing an application practice on the miniature range. In this each shot is called and the student endeavours to hit the bull by aiming up, down, right or left as necessary.

**Note.**—Since many men must of necessity share the same rifles no point is gained by zeroing the rifles to the men's holds.

### **GROUPING.**

It must be understood that grouping with the open sight is a definite test of:—

(a) The Rifle.

(b) The Man.

Grouping is a practical method of locating faults, and it is of the utmost importance that such faults, once located, be corrected forthwith.

It should be clearly understood that a man's average group at a given range, say 100 yards, will, except for the error of the day, be the measure of his capacity at all ranges. Thus, if a man's average group at 100



yards be a three-inch one then at 200 yards a six-inch one is the most he can expect, and if he starts to make shot corrections at 200 yards range when within six inches of his mark he is merely wasting time and confusing himself.

#### Lessons to be learnt from a group of shots.

If a man makes a vertical group it is fairly safe to say he is making one of the following errors:—

- (a) Varying the amount of foresight taken.
- (b) Varying the point of aim.
- (c) Not restraining his breathing when pressing the trigger.

If he makes a lateral group his error will usually be found among the following:—

- (a) Incorrect centring of foresight.
- (b) Varying of point of aim.
- (c) Bad trigger pressing.

If he gets a good group but wide of the aiming mark it is safe to assume that his rifle is "throwing," and it should be corrected at once by alteration of foresight. (Foresights are issued in different heights to permit alterations.) For this reason the armourer or other qualified person must be present with the necessary tools when grouping is carried out. Where Home Guards cannot each have a rifle foresights should not be altered, but the man told to "aim off."

If his shots are widely scattered it will be necessary to analyse the fault as follows:—

- R. A known good shot tests the rifle.
- A. Test aim with aiming rest or aim corrector.
- T. Test trigger pressing by means of the aim corrector.
- S. Test his sight by means of the simple tests known to Musketry Instructors.

#### GENERAL NOTES.

##### AIMING DISC.

This is a useful gadget for teaching aiming. It is a  $1\frac{1}{2}$  inch circular disc of metal soldered on to about ten inches of stiff wire. An aiming mark (one half of the old  $\frac{1}{2}$  inch bullseye) is painted on the top half of the disc on either side so that its centre is the dead centre of the disc through which there is a small peep hole.

**To Use.**—Aiming practice and snapshooting practice can be given with this as follows:—

The bolt is **removed from the rifle**. The student and the Instructor lie down facing each other at about 4 paces distant. The Instructor holds the disc to his eye, with the aiming mark having the hole at 6 o'clock, facing the student. The latter aims, and as the Instructor is looking through the hole he will be able

to ascertain whether the aim is correct or not. If the aim is correct, the Instructor will be looking along the tip of the foresight, correctly centred in the middle of the aperture, the upright U or V, at the pupil of the student's eye.

### RESTS.

Always rest the rifle on something if possible, but when using a rest the rifle should be rested as near as possible to the middle band. If, for instance, you rest it at the muzzle, it kicks up and your shot is very high.

### POSITION FOR BUTT.

If you put your right arm out in line with your shoulder, bend it at the elbow then bring your hand straight back towards your chin, you will be able to feel with the other hand a hollow in the shoulder. The Lord provided that for just this occasion as it is the hollow into which the butt of the rifle fits. Push your left elbow **under** the rifle and you have got the right position.

### LINING UP.

Remove the bolt and, on an aiming rest or tripod, take a correct aim at a bullseye 100 yards away, but with the windgauge at central and the backsight set at 200 yards. Now stand square with hands on knees and look through the barrel. If the bullseye appears to be approximately in the centre of the barrel, you would have hit it had you fired, provided you had not

snatched the trigger and that the barrel of the rifle was **bedding down** properly. You may use such a rifle with confidence.

If, however, on looking down the axis of the barrel you find you are off the mark, the rifle must be adjusted. This can be done best by altering and perhaps changing the foresight. If, on the other hand, this is not practicable, you must teach the man to "aim off."

### POWERS OF HOME GUARD.

If satisfied that you are confronting an enemy invader who is doing anything other than reaching skyward and calling "kamerad," shoot to kill, and if there is any doubt about having hit him shoot again.

### SEARCHING AND DISARMING.

While keeping the enemy covered, make him reach for the stars and turn his back to you. Still covering him, let one of the party walk up to his rear, remove his helmet and search all pockets, watching particularly for spring dagger and grenades. Only when you have made quite sure that there are no further weapons must you let him taken his hands down.

In the last war when quite small guards had to take large parties of Germans "down the line," the prisoners were frequently made to remove braces, belts and all buttons from the flys of trousers. Consequently they were obliged to use their hands to keep their trousers up. You cannot run or fight if your trousers keep falling down.

### PLANES.

If an enemy plane should come down in the area, shoot, and keep shooting as long as the members of the

crew continue to try and destroy their plane—or papers.

### **TREATMENT.**

Having taken a prisoner, treat him with the respect due to a prisoner of war. This does not mean he is to be taken to the canteen and made a fuss of. It means that there is to be no manhandling once he has surrendered. After all, to be there at all proves him to be a plucky fellow, and he is entitled to respect once he has admitted defeat. The local police or military authority will relieve you of him.

### **CHALLENGING.**

When challenging, one of the patrol will shout as loudly as possible, "Halt! Who goes there?"—at the same time bringing his rifle to the "on guard" position, on receiving the answer "Friend," he will order, "Advance and be recognised," and a second member of the patrol will satisfy himself as to the intruder's identity.

If approached by more than one person, the patrol will order, "Advance one and be recognised."

If he has any doubt as to the intentions of the person or persons, he will order, "Halt! Hold up your hands." If they refuse to halt, he will shout, "Halt! Or I fire." At the same time, both he and his partner will push the safety catch to the front, and open and close the breech, thus putting a round into the chamber. If the intruders still disregard the order, the patrol repeats, "Halt! Or I fire," and if still not obeyed, he will fire at the intruder. In no circumstances will he fire a warning shot into the air.

With the exception of the above, there must be no round in the chamber of the rifle, and the safety catch must be in the "safe" position.

### **GAS.**

Since we must all be efficient in the use of our gas masks, I reproduce herewith instructions issued by our A.R.P. officials.

### **RESPIRATOR DRILL.**

**The Service Respirator. The Civilian Duty Respirator.**

#### **1. Slung Position.**

When there is no likelihood of gas being encountered, the respirator is carried in the SLUNG position as follows:—

Respirator in haversack. Haversack closed. Haversack on left side.

Sling over right shoulder. Haversack on top of any other equipment.

(The Instructor should demonstrate the correct position, pointing out, in the case of the Service respirator, that the press buttons must be towards the body and that the length of sling should be adjusted as necessary by the brass slides.)

#### **2. Alert Position.**

When there is a likelihood of gas being encountered, the respirator is carried in the ALERT position as follows:—

Swing haversack to front of body.

Slip left arm through sling.

Undo press buttons with sharp pull.

Withdraw whipcord and pass through "D" on right.

Raise haversack on chest and drop sling down back.

Pass whipcord through sling at back and fasten to

"D" on left with slip knot.  
Fold over flap.  
Swing haversack to front of body.  
Open haversack to fullest extent.

### 3. Gas Position from Alert.

Immediately gas is encountered or the alarm "gas" is received, the respirator is put on as quickly as possible, as follows:—

Stop breathing. (Instructor explains that this is only done in quick time.)

Seize helmet with right hand and hang it on left arm by chin strap.

Seize facepiece with right hand in this manner. (Instructor shows grasp of facepiece by valve holder in the case of the Service respirator, or binding securing container to facepiece in the case of the Civilian Duty.)

Pull it out and turn it towards face.

Place thumbs inside two lower elastics on each side and slide wide apart.

Bring facepiece towards face.

Dig chin into it and pull harness over head with thumbs.

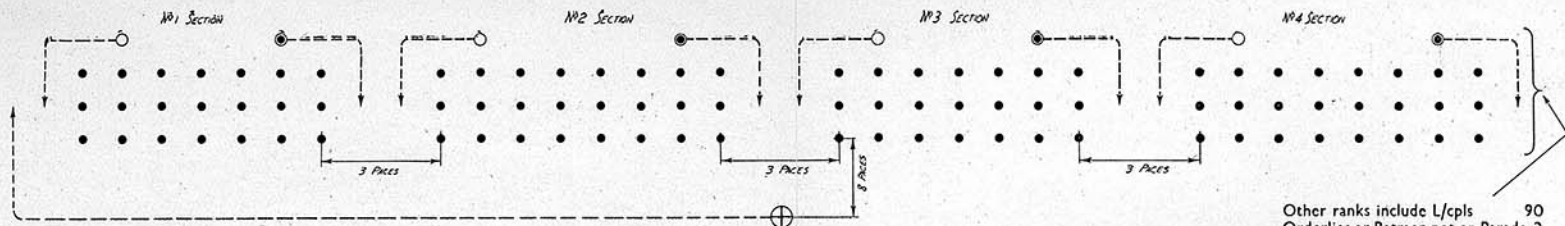
Adjust facepiece squarely and comfortably on face. Run fingers over it to make sure edges are not doubled inwards nor elastics twisted.

When protection has been obtained, blow out and breathe normally.

Pad of harness to be centrally positioned at back of head.

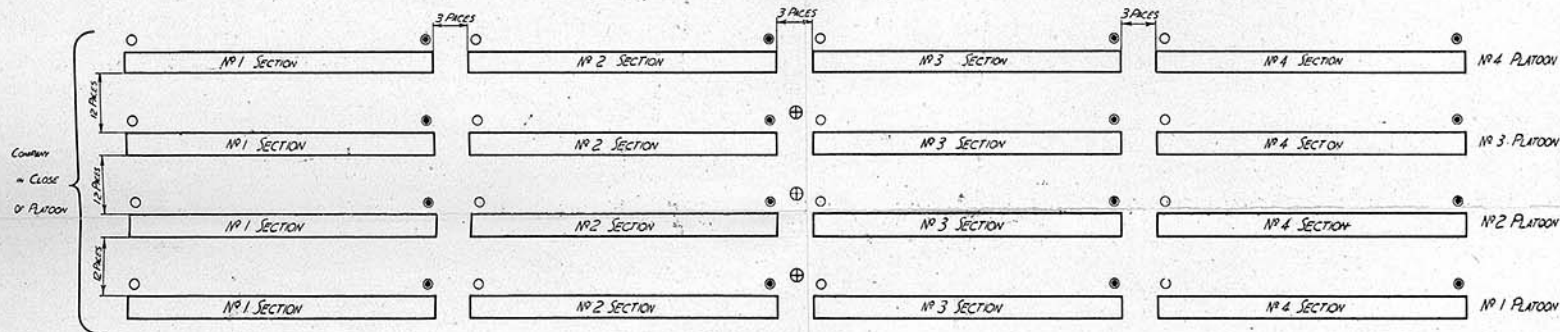
Replace helmet with chinstrap at back of head.





NOTE :- Platoon in line 3 ranks. Ranks at arm interval (handclosed) 3 paces between sections. Blank files second from left. Depth between Ranks (normal 30") Open ranks for inspection (front rank take 2 paces forward, rear rank & supernumeraries take 2 paces to the rear). Arrows show movement of supernumeraries on turning into column of route.

Other ranks include L/cpls	90
Orderlies or Batmen not on Parade	2
Sergeant	4
Corporal	4
<b>Total</b>	<b>100</b>



In column of Route  
takes position with  
Leading Platoon Commander

Company Commander

#### Schedule of References

- Other Ranks
- Corporal
- Sergeant
- ⊕ Platoon Commander
- Company Commander

#### SUGGESTED

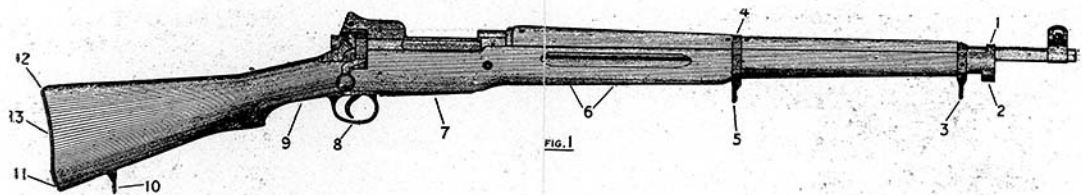
that we meet all essentials if we teach the above plus:

- 1 To move to right of left, in column of route.
- 2 To reform close column of platoons from column of route- (a) In restricted areas.  
(b) Where plenty of space is available.

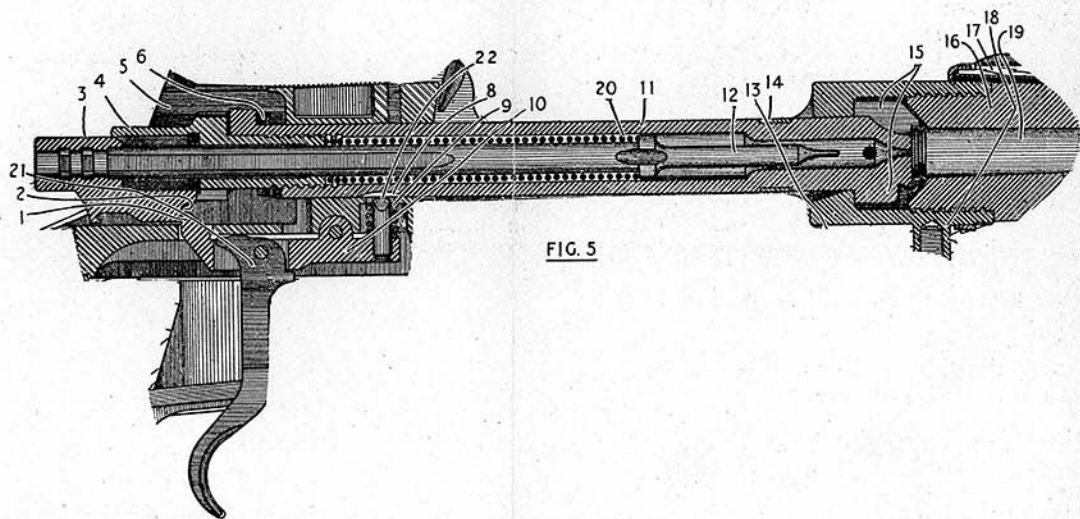
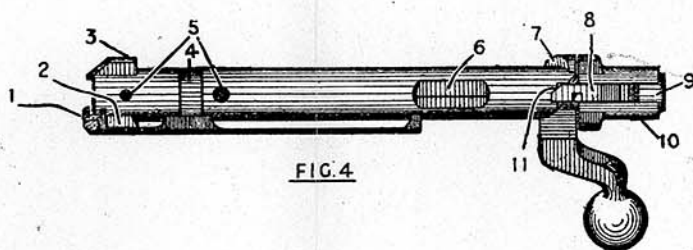
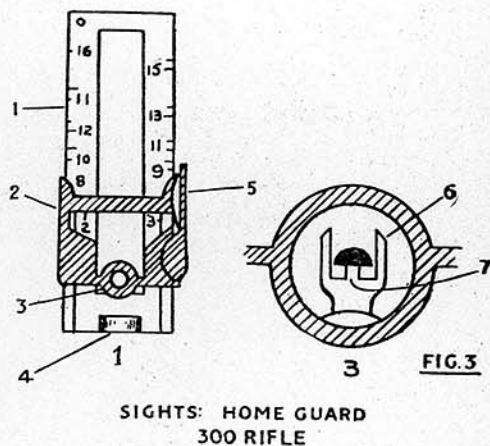
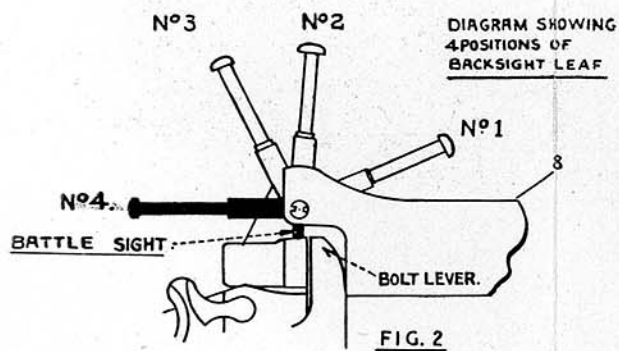
HOME GUARD

Date :- 24th August 1940, Introduced by Major Underhill.

As the Companies of Factory Battalions number 400, a slight change in the recognised "Fall in" formation is necessary if the supernumeraries are to take position readily in Column of Route and vice versa. The above chart has been adopted by this Company and embraces all that need be taught.



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