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Small Arms Training

Volume I, Pamphlet No. 3

Rifle

1937

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By Command of the Army Council,

A handwritten signature in black ink, appearing to read 'J. G. Gifford'.

THE WAR OFFICE,
4th September, 1940.

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CONTENTS

PAGE

General	1
 Section 1. Mechanism and Cleaning :—		
Lesson 1.	Mechanism and trigger pressing	2
..	2. Cleaning materials and daily cleaning	6
..	3. Loading and unloading	8
..	4. Cleaning before and after firing	10
..	5. Examination of the rifle	13
 Section 2. Aiming Instruction :—		
Lesson 6.	Accuracy of aim	15
..	7. Aiming at targets at service distances	17
..	8. Aiming at ground	18
..	9. Aiming off for wind (elementary)	19
..	10. Elevation and aiming up or down	24
..	11. Aiming off for wind at service targets	26
..	12. Aiming off for movement (ground)	28
 Section 3. Firing Instruction :—		
Lesson 13.	Lying position	33
..	14. (continued)	35
..	15. Kneeling position	40
..	16. Standing and sitting positions	43
..	17. Snaphooting	48
..	18. (continued)	50
..	19. Rapid fire	51
..	20. Firing behind cover lying	52
..	21. kneeling or sitting	55
..	22. standing	57
 Section 4. Fire Discipline Training :—		
Lesson 23.	Individual fire discipline training	61
Tests of Elementary Training		62
Care of No. 2 Rifle, .22-inch		65
The Sniper's Rifle		67

GENERAL

1. Characteristics :—When cared for and handled correctly, the rifle is :—

- i. Capable of a high and accurate rate of fire.
- ii. Suitable, with the bayonet, for hand-to-hand fighting.

2. Service standard.—Instruction in this pamphlet is designed to make the soldier :—

- i. A steady and accurate shot.
- ii. A quick shot at targets appearing at short and indefinite intervals.
- iii. A handyman with the rifle, able to fire bursts of 5 to 10 rounds at a rapid rate.

SECTION 1.—MECHANISM AND CLEANING

(LESSONS 1 TO 5)

1. Object.—To teach the soldier from the beginning of his service that he must take proper care of his weapons so that they are in working order at all times.

2. Scope.—Only such mechanism as is required for the care and maintenance of the rifle is included. Further knowledge may be obtained from the Text Book of Small Arms.

LESSON 1.—MECHANISM AND TRIGGER PRESSING

Instructor's Notes

This lesson will be taught immediately after the rifle is issued to the recruit.

Name each part of the rifle as dealt with.

Explain paragraphs 1 and 2 (General) (page 1).

MECHANISM

Explain and demonstrate with squad imitating :—

1. Recognizing the rifle.—

Every rifle can be recognized by some peculiarities of colour or marking.

The number stamped on bolt lever must agree with that stamped on right front of body.

2. Removing and replacing bolt.—

To remove :—

- i. Push forward safety-catch with thumb of right hand. Pull out cut-off by pressing downwards and outwards with thumb of right hand.
- ii. Raise knob as far as it will go ; draw back bolt head to resisting shoulder ; release it from retaining spring.
- iii. Raise bolt head as far as possible and remove bolt by drawing it backwards.

To replace :—

- iv. Ensure that number on bolt and on right of body of rifle correspond and that safety-catch is forward. Bolts of rifles must not be exchanged. The use of the wrong bolt may affect the accuracy of the rifle.
- v. See that resisting lug and cocking-piece are in one straight line and that bolt head is screwed home.
- vi. Place bolt in body with extractor uppermost and push it forward until head is clear of resisting shoulder.
- vii. Turn bolt head over to right, pull it back, then press bolt head down until it is caught by retaining spring.
- viii. Close cut-off, close breech, press trigger, and apply safety-catch with forefinger, and with remaining fingers ensure that bolt lever is fully down.
- ix. Practise squad.

3. Removing and replacing magazine.—

- i. *To remove.*—Depress magazine catch inside trigger guard and withdraw magazine. Magazine must not be removed from the rifle except for cleaning purposes or as laid down in Lesson 3 (4) ; and, to avoid weakening the spring, cartridges should only be kept in it when necessary.
- ii. *To replace.*—Put front end of magazine in first and press upwards until catch is engaged.

4. Half-cock and how to re-cock.—

At half-cock trigger cannot be pressed nor can bolt be rotated until action is placed at full-cock by drawing back cocking-piece. After action has been cocked, breach will be opened to ascertain if chamber is empty before trigger is finally pressed and safety catch applied.

5. Leaf and slide of backsight will be lowered and cocking-piece forward when rifle is not in use.

TRIGGER PRESSING

Instructor's Notes

Individual instruction is necessary to teach trigger pressing.

Demonstrate in the correct position each phase and seat squad so that they can imitate correctly (i.e. both elbows on a table and butt into shoulder.

Test trigger action of all rifles for two pressures.

Test each man's trigger finger to see that it can be moved freely without disturbing the grip.

When a recruit cannot understand the two pressures, demonstrate them by placing the hand over that of the recruit.

6. Importance of and aids to trigger pressing.—

- i. Unless trigger is pressed correctly, bad shooting will result.
- ii. Physical fitness, with determination and good nerve-control, is essential.
- iii. There are two distinct pressures required to fire the rifle. The first is taken as the butt comes into the shoulder to aim, the second when the aim is correct.
- iv. A firm grip with the right hand must be maintained.

7. Method of trigger pressing.—

- i. Cock the action. Grip with right hand, forefinger outside trigger guard.
- ii. Raise butt into shoulder, at the same time put first joint of forefinger on trigger.

- iii. Press or squeeze across the small of the butt in the direction of the thumb, until the first pressure is taken.
 - iv. Without relaxing grip, restrain breathing and continue to squeeze until second pressure is taken.
8. Give conditions of test.
9. Practise squad.

10. Action on pressing trigger.—

On taking second pressure, cocking-piece is released and mainspring carries forward striker, which is attached to cocking-piece. Striker hits cartridge cap, which explodes the charge.

11. Action on opening breech.—

When bolt is fully forward, *i.e.* breech closed, extractor grips rim of cartridge. When bolt is pulled back, extractor draws empty cartridge case back until it is ejected.

LESSON 2.—CLEANING MATERIALS AND DAILY CLEANING

Instructor's Notes

Stores.—All cleaning materials.

Explain and demonstrate with squad imitating :—

1. Materials.—

No material other than that issued from store will be used to clean the rifle.

- i. *The pull-through.*—Used to clean the bore, will be kept in the butt-trap of the rifle. It has three loops. That nearest the weight is for wire gauze. The middle loop is for flannelette; the loop at the end is for use by the armourer so that the pull-through can be removed from the bore should it break or jam.

Before using it, run the cord through the fingers to straighten and remove grit; insert flannelette in the correct loop. Drop the weight through the bore from the breech end. Hold the rifle firmly at the muzzle, and do not put the butt plate on stone or concrete. Pull the cord, in one motion, straight through so that it does not touch the muzzle of the bore. If the cord rubs against the muzzle, it will make a groove known as cordwear, and the accuracy of the rifle will be spoilt.

When permission is given to use wire gauze (see Lesson 4), a soldier may obtain the assistance of a comrade to hold his rifle. The owner is, however, responsible for avoiding cordwear.

The pull-through will be packed in the butt-trap as follows: hold the pull-through (loop end) between the forefinger and thumb, so that the end falls about two inches below the third finger; roll it loosely once round the fingers. Slip the coil off the fingers and twist the remainder of the cord tightly round it, leaving sufficient to allow the weight to drop easily into the recess made for it in the butt. Push the cord into the trap, leaving the loop end uppermost, and close the trap.

ii. *Flannelette, oil and oil bottle.*—To clean or dry the bore, a piece of flannelette 4 inches by 2 inches will be used.

To oil the bore, the size will be 4 inches by 1½ inches with oil well rubbed in. If a larger piece is used, the oil is squeezed out of the flannelette as it enters the bore.

The oil bottle is carried in the butt trap.

2. Examination of the bore.—

Hold the muzzle close to the eye and look into the bore, but not through it. Draw the eye back gradually looking for rust, and fouling. Examine the chamber from the breech end.

3. Daily cleaning.—

The bolt, magazine and sling will be removed and put in a clean place. No further stripping is allowed, and no screws may be loosened or tightened by N.C.Os. or men.

The bore will be pulled through with dry flannelette until clean, and then oiled. This is particularly important for a period of four or five days after firing.

The exterior of the rifle will be cleaned with an oily rag. Attention will be paid to the gas escapes and crevices.

The working parts will be oiled.

Unnecessary rubbing of the browned parts of the rifle will be avoided. Browning prevents rust.

In dusty climates, working parts will be kept dry. Muzzle and bolt protectors may be issued, but anything in the nature of a plug for the muzzle is forbidden.

4. Practise squad.

LESSON 3.—LOADING AND UNLOADING

Explain and demonstrate with squad imitating :—

1. To load.—

- i. Push forward safety-catch.
- ii. Pull out cut-off.
- iii. Open breech by pulling bolt back to its full extent.
- iv. Take a charger between thumb and first two fingers of right hand, and place it vertically in guides.
- v. Place ball of the thumb on top cartridge immediately in front of charger, hook forefinger under cut-off, force cartridges down with a firm and continuous pressure until top cartridge is clear of charger and has engaged in magazine. If there is no cut-off, hook fingers under woodwork.
- vi. Force bolt sharply home with thumb and forefinger, turning knob fully down, and with forefinger of right hand turn safety-catch completely to rear, ensuring at the same time, by means of the remaining fingers, that bolt-lever is fully down. Button up pouch.

2. To unload.—

- i. Push safety catch forward, draw back bolt, work it rapidly backwards and forwards to its full extent, without turning knob down, until all cartridges are removed from magazine and chamber.
- ii. Close cut-off by placing right hand over body and pressing inwards, then close breech, press trigger and apply safety-catch.

3. Practise squad.

4. Alternative method of unloading.—

Sometimes necessary on service, *e.g.* for cleaning purposes ; in the dark ; or in a muddy trench.

Remove magazine, open breech, then secure round from chamber with fingers of left hand. Allow it to fall through magazine opening into palm of left hand. Close cut-off and breech. Press trigger and apply safety-catch. Empty magazine and replace it in rifle.

5. Practise squad.

6. Charging magazine.—

- i. Magazine holds two chargers, each of 5 rounds.
- ii. Sometimes for safety reasons, *i.e.* anti-aircraft precautions, it is necessary to charge magazines without allowing a round to enter chamber. The order for this will be "Charge magazine."
- iii. On this order, load with two chargers; press down top cartridge; close cut-off. If there is no cut-off, hold top cartridge down with thumb of right hand and draw bolt head over top cartridge with little finger. Then close breech, press trigger, apply safety-catch, button up pouch.

7. Loading when magazine is already charged.—

Push forward safety-catch, pull out cut-off. Open and close breech and apply safety-catch.

8. Practise squad.

9. Jams and remedies.—

In peace, if immediate action does not remedy a jam, the rifle will be taken to the armourer.

Jams seldom happen, but may be caused by :—

Faulty handling of the bolt—the fault of the soldier.

Dirt or oil in the magazine—neglect by the soldier.

Dirty, damaged or defective ammunition.

Badly filled chargers.

Worn or damaged parts.

i. No round enters the chamber.

Draw back bolt.

Press rounds into magazine and release them suddenly.

Tap bottom of magazine sharply.

ii. Damaged lips of magazine.

On service, lever up lips with a round of ammunition.

iii. Missfire.

Reload.

iv. Badly filled charger.

Load with fresh charger.

LESSON 4.—CLEANING, BEFORE AND AFTER FIRING

Instructor's notes

Stores.—Chamber cleaning stick.

Wire gauze for each man in squad.

Flannelette.

Explain and demonstrate with squad imitating.

ADDITIONAL CLEANING MATERIALS

1. Chamber cleaning stick.—

Place a piece of dry flannelette in the slot, and wind it round the stick to ensure that the latter is covered. Insert the stick into the chamber through the bolt way, and turn it round several times.

This is the only satisfactory method of cleaning the chamber.

WIRE GAUZE FOLDED (Section).



ON PULL-THROUGH



FIG. 2

2. Wire gauze, in pieces $2\frac{1}{2}$ inches by $1\frac{1}{2}$ inches, except on active service, will only be used with the permission of an officer to remove fouling from a worn barrel.

The method of attaching it to the pull-through is as follows :—

Fold the gauze as in Fig. 2 so that the longer sides take the form of an "S."

Open the first loop of the pull-through and put one side of it in each loop of the "S."

Coil each half of the gauze tightly round that portion of the cord over which it is placed until the two rolls thus formed meet.

Oil the gauze before use, and remove loose strands of wire. These might scratch the bore. The gauze must fit the bore tightly and will, if necessary, be packed with a small piece of flannelette. The gauze will not be allowed to remain on the pull-through except on active service.

STRIPPING

3. Removing and replacing magazine platform.

To remove.—Press down wide end until narrow end is disengaged from front lips. Remove platform.

To replace.—Insert wide end under rear lips and press it down until narrow end engages under front lips.

CLEANING BEFORE FIRING

4. The following details must be performed :—

- i. Remove oil from bore and chamber with dry flannelette.
- ii. Dry face of bolt and make sure that gas escapes are clear.
- iii. Oil action slightly, except in dusty countries, where it should be kept dry.
- iv. Test working of magazine platform.

CLEANING AFTER FIRING

5. The explosion of the charge in the cartridge leaves a deposit in the bore, which hardens and rusts unless quickly removed. This deposit is known as "fouling" and appears for several days after firing. Boiling water poured through the barrel helps to remove fouling by dissolving the deposit, and should be used after firing.

The method of cleaning after firing any type of ammunition is :—

- i. Pull through with dry flannelette.
- ii. Pour 5 or 6 pints of boiling water through bore from breech end, using a funnel. Avoid spilling water between barrel and fore-end.
- iii. Dry bore with flannelette and oil it. This helps subsequent removal of fouling.
- iv. Clean remainder of rifle, including chamber and inside of magazine.
- v. Pull through with dry flannelette until it comes out clean, and oil barrel.

If boiling water is not available :—

- i. Pull through with dry flannelette.
- ii. Oil bore.
- iii. Pull through with wire gauze and clean as in para. 5, iv. and v.

GENERAL PRECAUTIONS

6. To prevent rust, barrels will always be kept oily except :—
Immediately before firing.
At rifle inspections, as ordered.
7. After firing blank ammunition, rifle will always be cleaned before firing ball ammunition.
8. Give conditions of test No. 1.

ACTION DURING AND AFTER GAS ATTACK

This part of the lesson will be taught during post depot training after the recruit has been instructed in defence against gas. (See Pamphlet No. 1, Sec. I. Post depot training syllabus.)

9. During a gas attack.—Keep weapon oiled and move working parts backwards and forwards at frequent intervals.

10. After gas attack.—If splashed with blister gas, weapon must be decontaminated before cleaning :—

Decontamination.—Adjust respirator, cover hands with protective ointment or gloves if available. Strip rifle as for cleaning after firing and remove all surface contamination, oil and dirt with a rag, which should afterwards be burnt or buried.

Cleaning.—Clean all parts of weapon with oil and/or boiling water as for cleaning after firing. In case of blister gas cover wooden portions of weapon with bleach paste, which will render it temporarily safe to handle.

11. Ammunition.—In position warfare, ammunition will be kept in shelters protected by a moist curtain. Boxes should be kept closed. After a gas attack any rounds corroded will be cleaned with oil and used as early as possible.

LESSON 5.—EXAMINATION OF THE RIFLE

(For officers and N.C.Os. only)

All officers and N.C.Os. must possess a thorough knowledge of the inspection and care of rifles. Young officers will be instructed by the armourer and N.C.Os. by a qualified instructor in the various components of the rifle as below :—

- i. With the barrel dry, examine it for rust, cuts, bulges and fouling.
- ii. Foresight ; that blade is not deformed and that nose cap is not loose.
- iii. Backsight, for firmness ; that it is not bent ; that slide moves smoothly ; that thumb-piece and fine adjustment worm work freely and engage in rack on side of leaf ; and that " U " is not deformed.
- iv. Magazine ; that it is not dented, and that platform works freely ; also magazine catch and auxiliary spring.
- v. Bolt ; that it bears same number as body ; that striker is not screwed beyond end of cocking-piece ; also that striker keeper screw is not broken and is in its proper position ; and that bolt works smoothly.
- vi. Striker point ; that it is correct shape and projects sufficiently through face of bolt-head ; also extractor and spring.
- vii. Sear ; that it holds cocking-piece back securely when bolt is driven forward sharply to closed position.
- viii. Cocking-piece ; for firmness on striker, that bents are in good condition.
- ix. Safety-catch and locking bolt ; that safety-catch engages in camway of bolt and locks it ; that it does not move too easily ; and that cocking-piece is withdrawn slightly to rear when locking bolt is applied, whether it is at " full cock " or " fired " position.
- x. Cocking-piece and striker ; that they fly forward freely on pressing the trigger. Test two pressures of the latter.
- xi. Stock, fore-end and butt ; general condition and butt not loose.

SECTION 2.—AIMING INSTRUCTION

(LESSONS 6 TO 12)

1. *Object.*—To teach the soldier to aim correctly at any target.

2. *Aids.*—Full use will be made by instructors of diagrams on paper, blackboard or ground, to illustrate rules and explain faults.

3. *Standard of accuracy.*—There is only one correct aim at any target and it is essential to insist on accuracy at all times. In the early stages, targets are provided with clearly defined aiming marks, and are replaced by service targets as progress is made. Experience compensates for the difficulty of aiming in the later stages. Aiming and trigger pressing will be tested constantly throughout the training, and sights inspected to see that they are adjusted as ordered.

4. *Aim corrector.*—When used, the aim corrector will be placed on the rifle behind the backsight with the reflecting glass to the left, sights being raised to 400 yards to give a clear view. (See S.A.T., 1931, Vol. V, Plate 54.)

LESSON 6.—ACCURACY OF AIM

Instructor's Notes

*Stores.—Grouping target fixed at 100 yards.
Aiming rests, tripods and sandbags.
Paper and pencil.*

When checking an aim, the eye must be in the correct position and head rested. If the aim is found to be incorrect, make the man look at it again ; if he sees it is wrong, let him lay another, but if he still thinks it is correct, convince him that it is incorrect. This may be done by holding a piece of white paper in front of the muzzle ; the man is then told to get the tip of the foresight in line with the shoulders and in the centre of the " U " of the backsight. The paper is then removed quickly, and replaced after a short pause, when the man is asked where his aim was directed.

Common faults in aiming and their effects will be explained as they arise :—

Taking too much or too little foresight in the " U " of the backsight, causing the bullet to strike high or low respectively.

Inaccurate centring, i.e. failure to get the blade of the foresight in the centre of the " U " of the backsight, causing the bullet to be directed to the right or left according to the error.

Looking at the sights rather than the aiming mark. This will cause the aiming mark to become blurred and thus make the firer lose sight of a small target.

Inclining the backsight to one side. This, if exaggerated, will cause the bullet to strike on the side to which the sights are inclined and may cause it to go low.

1. Sight setting.—

- i. Explain that sights are placed on the rifle in order to give both direction and elevation.
- ii. Explain and demonstrate with squad imitating :—

Adjustment of backsight.—Hold rifle in a convenient position. With thumb of left hand press in stud on side of backsight. Move slide till line on it is even with mark on leaf giving elevation for distance named. Ensure that slide is firmly fixed. Alterations will be made in 100 and/or 50 yards.

To adjust slide.—If, when sights are set at 200 yards, it is found that line on slide does not exactly agree with mark on leaf, then adjust it by the following method. Press stud on slide with thumb of left hand until worm wheel can be easily revolved; turn worm wheel with thumbnail of right hand, until lines agree. Stud must not be pressed to such an extent that worm wheel is entirely disengaged from rack.

iii. Give conditions of test.

iv. Practise squad by word of command. Alterations ordered will be in multiples of 50 yards.

2. The rules of aiming.—Teach the three rules of aiming, using a diagram :—

i. The backsight must be kept upright.

ii. Close the left eye. (If it is impossible for the man to shoot from the right shoulder, then the right eye will be shut.)

iii. Look at the target. Direct the sights at the centre of it by aligning the top of the foresight in the middle of the "U" and in line with the shoulders of the backsight. (In using a target where an aiming mark is provided, aim will be directed at the lowest centre portion of such mark.)

3. The correct aim.—

i. Demonstrate a correct aim. Point out that the elbow and head is rested and the eye over the heel of the butt.

ii. Each man views the aim.

iii. Show how to arrange kit required.

iv. Practise squad. Men lay aims; deal with faults as they occur.

4. Elevation.—Give examples of elevation, such as "fire-hose" and illustrate with two rifles by removing bolts and laying aims—sights being adjusted to 200 and 1,000 yards respectively. Let each man view aims and look through the bores, instructor bringing out the following :—

i. Sights 200.—Sights and bore are pointing at the mark.

ii. Sights 1,000.—Sights on mark, barrel elevated to allow for fall of bullet.

LESSON 7.—AIMING AT TARGETS AT SERVICE DISTANCES

Instructor's Notes

Stores.—

Small and large targets fixed at distances of 200 yards to 500 yards.

Silhouette figure targets fixed at distances up to 500 yards.

Where facilities do not permit of distances of 200 to 500 yards being obtained, shorter distances may be introduced, and a representative target at 25 yards may be used by the Territorial Army.

Sights will always be adjusted to the range at which aiming is taking place.

In aiming at silhouette figures, the aim will be considered correct if it is approximate to the centre of the target.

1. Accuracy of aim at small and large targets.—

- i. Lay a correct aim at nearest target and let each man view it.
- ii. Give conditions of test.
- iii. Practise squad at each target and explain faults as they occur.

2. Aiming at silhouette figure targets.—

- i. Refer to third rule of aiming, and point out that there is no aiming mark on silhouette figure targets.
- ii. Lay a correct aim and let each man view it.
- iii. Give conditions of test.
- iv. Practise squad.

LESSON 8.—AIMING AT GROUND

Instructor's Notes

To obtain full value this lesson must be done on the ground. If this is not possible, landscape targets may be used.

Stores.—

Aiming rests, tripods, sandbags, signalling flag (and landscape targets when required).

When two fatiguemen are available they will be used in 4 below and will be rehearsed to appear at prearranged places for a few seconds and then disappear on signal. Select four positions.

1. Explain that the eyesight must be gradually trained in aiming at service targets other than figures, such as features on the ground where it is thought that an enemy is concealed ; mention likely places at which an aim would be taken.

2. Point out a sector and indicate, by description, features on the ground, *e.g.* positions which the enemy may occupy, cover likely to be used, and open spaces or gaps which the enemy will have to cross. Indicate a point of aim if the object is large.

3. Squad aims (rifles on aiming rests).

4. Arrange for two fatiguemen to be in the sector and that on a given signal one man at a time shall get up and advance to a suitable piece of cover, where he will remain under cover until he is signalled to adopt a service position, as if firing at the squad. These men will make three or four advances or withdrawals on similar lines.

5. Squad (with rifles on aiming rests) watch the front. One man is signalled to appear between 100 and 300 yards and, after advancing, to disappear. After a pause order " Aim."

6. Squad aims at the spot where they think the man disappeared.

7. Signal man to show himself in a service position. Check aims.

8. Introduce the use of an " aid " to memorize the exact spot where the man has disappeared. The selection of a prominent object on the ground, either between the firer and the spot on the ground or beyond it, which is in the same line of direction, is a valuable aid.

9. Practise squad. Introduce gradually more difficult aiming points from 200 to 500 yards.

LESSON 9.—ELEMENTARY AIMING OFF FOR WIND

(Not to be taught to post-mobilization recruits)

Instructor's Notes

Stores, etc.—

Aiming rests, tripods and sandbags.

Classification targets (representative targets where necessary) ; auxiliary aiming marks and marking discs.

One or more assistants.

Record book (A.B. 142) for each man.

Signalling flag.

1. Targets.—

Explain (each man using his record book (A.B. 142)) :—

i. Size of targets, *i.e.*—

Small target, 4 ft. by 4 ft.

Large target, 6 ft. by 6 ft.

Large snapshooting, 22 inches.

ii. Dimensions of scoring areas, *i.e.*—

Small and large targets showing bull, inner, magpie and outer.

Snapshooting target—the whole target as a scoring surface.

iii. Method of signalling.—

Demonstrate, using a target and signalling disc, the method of signalling bull, inner, magpie, outer and miss, and a hit on a snapshooting target (*see Pamphlet No. 1*).

2. Explain.—

i. The necessity for aiming off. Quote examples, such as taking a corner in a football match on a windy day.

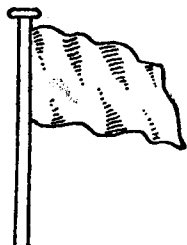
ii. That, when considering the effect of side winds, the firer must :—

judge the strength of wind ;

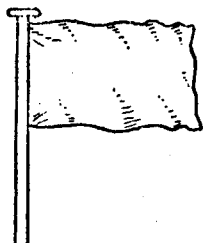
select a point of aim to give the required allowance ;

maintain elevation while aiming off.

- iii. That there will invariably be a flag flying on the classification range, but that men should also learn to estimate the strength of the wind from personal experience and its effect on trees and grass.



Fresh, 10-12 m.p.h.



Strong, 15-20 m.p.h.

FIG. 3

3. Aiming off :—

- i. Explain that, in aiming off for a side wind at targets on the classification range, there are three convenient points of aim which will give the necessary allowance at various distances. These points are :—

The edge of the bull.

Midway between the edge of the bull and the edge of the target.

The edge of the target.

These points of aim give a practical method of aiming off, and only shooting experience under varying conditions can provide a more accurate means of determining the allowance required.

- ii. Based on a *fresh* wind blowing from the right, the following are examples of the point of aim required at various ranges (see Figs. 4 to 7).

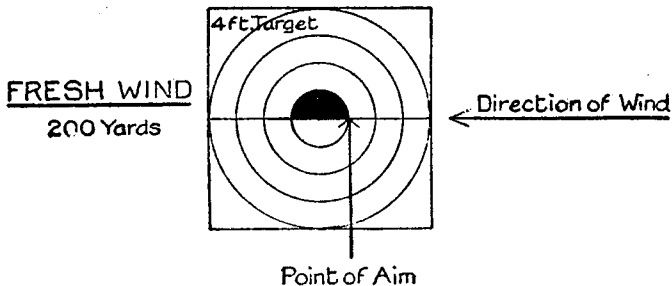


FIG. 4

FRESH WIND

300 Yards

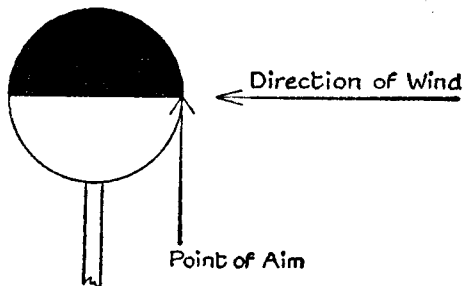


FIG. 5

FRESH WIND

500 Yards

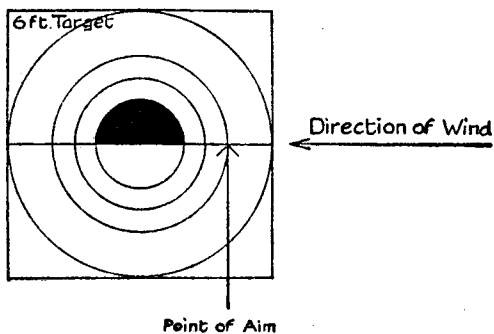


FIG. 6

FRESH WIND

300 Yards

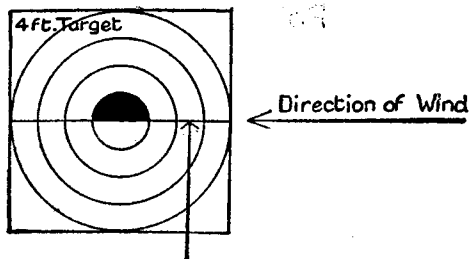


FIG. 7

iii. For an oblique or strong wind, move in or out to the next point of aim to give a lesser or greater allowance respectively. A more detailed method of calculating the allowance is given in A.B. 142 in the form of a wind table.

4. Aiming off, maintaining elevation :—

- i. Explain, using diagrams, how elevation is kept by the top of the foresight being in line with the shoulders of the "U" of the backsight and the mark resting on the shoulders.
- ii. Practise squad aiming off at the three points of aim given in para. 3 above at small and large targets at ranges up to 500 yards.
- iii. Check aims by auxiliary aiming mark (*see Fig. 8*).

Note.—Small errors from the correct point of aim may be overlooked.

- iv. Give conditions of test.

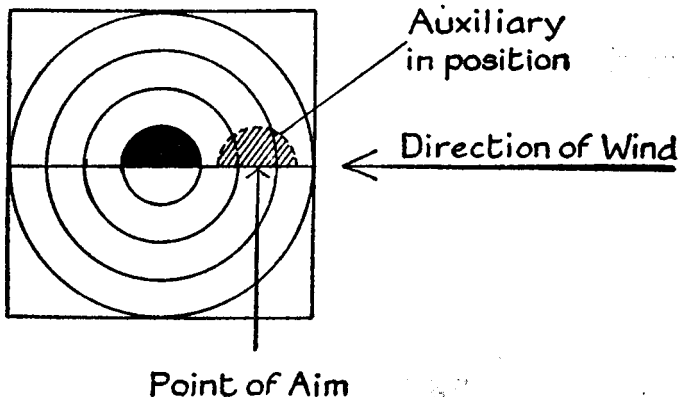


FIG. 8

5. Set problems introducing different winds at various ranges.

Note.—If sufficient distances and facilities are not available, the following method will be substituted for aiming at classification targets.

1. Using representative targets between 25 and 15 yards according to visibility and conditions :—
 - (a) Explain sizes of targets which they each represent, as in 1 above.
 - (b) Teach signals as in 1 above.

2. Explain, using diagram, how elevation is kept by the top of the foresight being in line with the shoulders of the "U" of the backsight and the mark resting on the shoulder.
3. Squad ordered to aim at the three points of aim right or left. Pin up auxiliary and check.
4. Squad practise aiming off at the equivalent of 200 to 500 yards.

LESSON 10.—ELEVATION AND AIMING UP OR DOWN

Instructor's Notes

Stores.—

Record Books.

Classification Targets with auxiliary aiming marks, 200 to 500 yards ; signalling flag and one assistant at each target to use the marking disc.

Aiming rests, tripods and sandbags.

1. Explain that, when firing, it may be necessary to make an alteration in sight adjustment, to raise or lower the position of the shots on the target—correcting errors by sight adjustment enables the correct point of aim to be maintained. To do this the soldier requires to know the Elevation Table. Teach the table :—

Range	An alteration up or down of 100 yards gives rise or drop on the target of :—
200	$\frac{1}{2}$ foot
300	1 foot
400	$1\frac{1}{2}$ feet
500	2 feet

- i. For an alteration of 50 yards halve the above allowances.
- ii. For an alteration of 200 yards double the above allowances.
- iii. The soldier should be told that the table is reproduced in the record book (A.B. 142) for reference when firing on the classification range.

2. Alteration of sights.—Tell squad that, having just fired at the target at 300 yards, the shot is low as signalled. Assistant places disc 12 inches below aiming mark. To correct this error, sights will be altered to 400 yards.

Explain that errors in elevation should be corrected by sight adjustment whenever time permits, and that, as it only takes three seconds to adjust the sights, this should nearly always be possible.

Set simple problems, using a marking disc on the target at from 200 to 500 yards, to show the supposed strike of the shot—above and below the aiming mark.

Give further practice at targets at ranges from 200 to 500 yards.

3. Aiming up or down.—

Explain :—

- i. The minimum sighting on the rifle being 200 yards, it will be necessary up to this range to aim down in order to correct shots observed to be going high.
- ii. When firing rapid or snapshooting, if a firer observes his shots to be going high or low, time will not permit a sight adjustment ; he will have to alter his elevation by aiming down or up.

4. Signal assistant at target to place disc 6 inches above the top of the bull's-eye. Explain that sights are adjusted to 200, but shots are striking as shown by the disc. The only way of getting them on the mark is to aim down one foot.

Squad aims at small target at 200 yards to counteract an imaginary error in the strike of shots as indicated by a disc. Check by auxiliary aiming mark.

Note.—If sufficient distances and facilities are not available, paras. 2 and 3 may be carried out on representative targets at 25 yards.

LESSON 11.—AIMING OFF FOR WIND AT SERVICE TARGETS

Instructor's Notes

Stores.—

Silhouette figure targets at from 200 to 500 yards (two targets at each distance).

Aiming rests, tripods, sandbags.

Assistant at each distance.

To obtain full value this lesson must be carried out in the open at proper distances. When this is impossible, representative targets at 25 yards may be used.

In aiming off at silhouette figures, the aim will be considered correct if it is approximate to the centre of the auxiliary figure.

1. Explain.—

The bullet is blown off its course to the point aimed at by the wind. It is, therefore, necessary to aim off into the wind a distance which is enough to counter the effect of the wind on the bullet. Each individual will be responsible at all times for making the necessary allowance for wind when engaging a target.

If you can feel the wind fresh on the side of your face, it is necessary to aim off.

The following rules are given as a guide for service conditions. They must be applied with common sense according to the direction and strength of the wind.

- i. It is never necessary to aim off for any wind at ranges under 200 yards.
- ii. Up to 400 yards, if you can feel the wind fresh on the side of your face, aim off one figure's width from the centre. (Imagine another figure standing beside that which is to be fired at.)
- iii. At distances over 400 yards, aim off two figures' width.

*Note.—*The above rules refer to direct or oblique right and left winds. No allowance will be made for head or rear winds.

2. An assistant at the target, beginning at 200 yards, places an auxiliary figure on the right or left side of the figure which is to be fired at.

- i. Squad aims at the auxiliary figure—instructor checks aims for accuracy.
- ii. Auxiliary removed. Squad views to see what the required distance looks like at 200 yards. Repeat the same process at 300 and 400 yards.

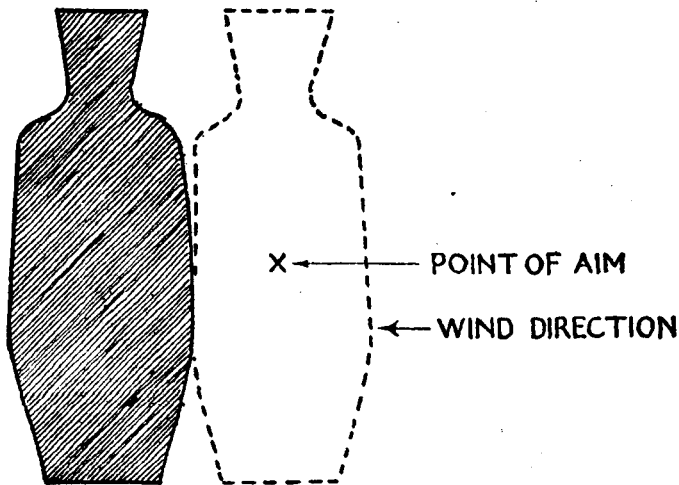


FIG. 9

3. Give conditions of the test.
4. Practise squad aiming off up to two figures' width at various distances. Check aims with auxiliary.

LESSON 12.—AIMING OFF FOR MOVEMENT (GROUND)

Instructor's Notes

Stores, etc.—Aiming rests ; aim corrector.

Fatiguemen to move about in front of squad.

In demonstrating the continuous swing on an aiming rest, the rifle should be placed about 4 inches farther forward in the rest than usual to enable a correct grip to be obtained.

Explain.—

1. Moving targets may be men on foot or horseback or vehicles, either armoured or unarmoured.

To hit a moving target, if it is crossing the front, it is necessary to aim off. To hit a target moving directly towards or away from the firer, it is not necessary to aim off.

As a general rule, rifle will seldom be effective against a single man or horseman in movement beyond 300 yards, or against single vehicles over 500 yards.

Although .303-inch ammunition will not penetrate armour, fire against armoured vehicles causes the visors of turrets to be closed and hinders the crew. Further, a bullet hitting armour breaks up into small molten fragments which can enter slots and crevices and may injure the crew. A chance bullet may enter a gun embrasure. Armoured vehicles will therefore be engaged by .303 fire and assistance thereby given to anti-tank weapons.

The rules for "aiming off" at ground targets with rifles are :—

i. Aim off at man walking, one width.

Aim off at man running, two widths.

Aim off at vehicles and horsemen, one width.

ii. Swing the rifle with the target and continue the swing while pressing the trigger.

2. Demonstrate : Aiming off at men on foot (with squad standing behind so that all movements of the rifle are visible, and fatiguemen walking across the front at 100 yards' distance).

Aim in front one width and take first pressure ; without checking swing of rifle take second pressure. Continue swing after taking second pressure and reload.

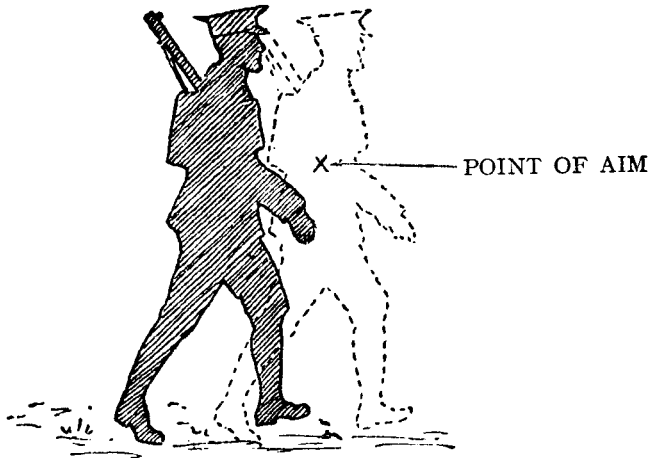


FIG. 10
POINT OF AIM

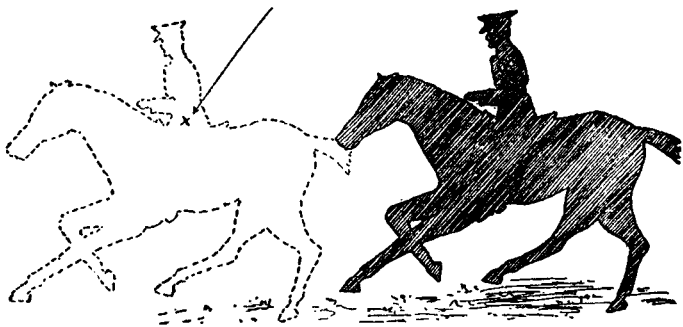


FIG. 11

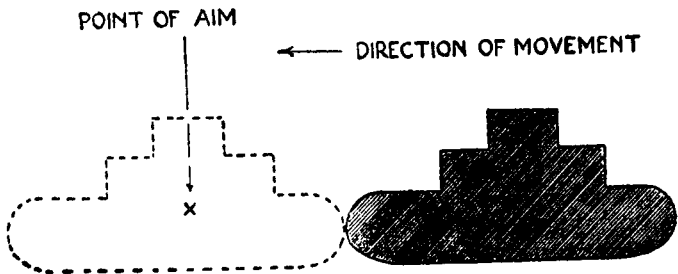


FIG. 12

3. Practise squad taking first pressure only.

4. Demonstrate to each man in turn, using an aiming rest and aim corrector, the continuous swing taking both pressures.

5. Practise squad in complete action up to distances of 300 yards at men walking and doubling; check each man in turn with aim corrector.

6. Aiming off at vehicles.—

Teach as above, using traffic on any available road.

SECTION 3.—FIRING INSTRUCTION

(LESSONS 13 TO 22)

1. *Object.*—To teach the soldier to handle his rifle so that in war correct action will be instinctive.

2. *Use of left shoulder.*—A man with normal vision learning to use the rifle can be taught to fire from the right shoulder, for which the rifle is constructed, as easily as from the left. Any inclination to use the left shoulder will therefore be discouraged.

3. *Slings.*—Slings will not be used to steady the rifle during firing.

4. *Fitting rifles.*—Rifles have long, normal and short butts and will be issued to men according to their build. The readiness with which the firer can bring his rifle into the aim without having his nose and mouth too close to the thumb and fingers of his trigger hand will indicate the suitability of the size of his rifle. This test will be made under the supervision of an officer as soon as the recruit has been taught how to fire in the lying position and again after arrival in his unit or whenever a new rifle is issued to him.

5. *Declaration of aim.*—As soon as the man has been taught how to press his trigger, he will be informed that, in all firing instruction, he will have to declare his exact aim at the moment the second pressure has been taken, except in rapid fire. The importance of a truthful declaration must be emphasized. Instructors must set a good example, taking care not to acquire a habit of automatically declaring their own shots correct when demonstrating to young soldiers.

6. *Fire discipline.*—Firing instruction is the basis of fire discipline training. Instructors must be alert to see that the points mentioned in Lesson 23, as applicable to the stage of training, are performed correctly. When recruits have reached a satisfactory standard in firing positions in the open, they will be taught to adapt them to various types of cover; bayonets may be fixed at this stage.

7. *Rest position.*—When a pause is necessary during instruction in order to explain anything to the squad, the order

“ Rest ” will be given, whereupon safety-catches will be applied and a convenient position of rest adopted. When the explanation, etc., is finished, the order “ Position ” will bring the men back into their original position.

8. *Final five minutes.*—Five minutes at the end of each lesson will be set aside to exercise those muscles directly used in holding and firing the rifle and to quicken men in its handling, particularly in the actions connected with snapshooting and rapid fire. Such exercises are left to the discretion of the instructor, who may include any lessons previously taught in firing instruction.

LESSON 13.—LYING POSITION

Instructor's Notes

Stores.—

Suitable targets for each man and instructor.

Man will be taught to adopt the lying position rapidly and to handle the rifle with as little movement as possible. The oblique angle of the body (see Fig. 13) must not be exaggerated.

1. Explain.—

The lying position is generally used on service for firing in the open or from low, continuous cover such as a bank or fold in the ground, and from isolated cover such as rocks, trees, etc.

2. Demonstrate position, naming each phase:—

Position for loading.

Loading and sight setting.

Unloading.

3. Demonstrate, giving detail, with squad imitating:—

Position for loading.

- i. To lie down.—Take a long pace forward to the right front with the left foot. At the same time change the rifle into the left hand, grasping it at the point of balance. Place the right hand on the ground in line with the left foot and lie down: during this movement push the rifle forward in the direction of the target and lower it to the ground; the left arm will now be extended to the front (see Fig. 13).

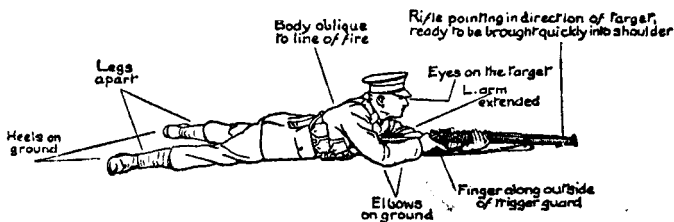


FIG. 13

- ii. To get up from the lying position.—Place the right hand on the ground below the right shoulder. Draw up the left knee as far forward as possible without

unduly raising the body. At the same time draw back the rifle with the left hand. From this position stand up as quickly as possible, bringing the right foot up to the left, and return to the order. Stand at ease.

4. Practise squad.

5. Demonstrate, giving detail, with squad imitating :—

Loading, sight setting, unloading.

i. Loading (as already taught).

ii. Sight setting.—Quit the rifle with the right hand. Draw the rifle back with the left hand, taking care not to raise the head and avoiding any unnecessary movement, until the lines on the backsight can be clearly seen. Set the sights and resume the position for loading.

iii. Unloading (as already taught). Lower sights and stand up.

6. Practise squad.

7. Final five minutes (*see* para. 8, page 32).

LESSON 14.—LYING POSITION (*continued*)

Instructor's Notes

Stores.—

As for Lesson 13 with the addition of the aiming disc.

To avoid any tendency to develop a habit of declaring every shot correct, the declarations of some of the squad must be checked with the aiming disc. Dummies will not be used.

The following are the methods of getting the eye back from the cocking-piece :—

- i. Raise the head a little and draw it back.*
- ii. Raise the butt a little higher in the shoulder.*
- iii. Turn the body less obliquely to the target.*
- iv. If these methods fail, obtain a longer butt.*

1. Demonstrate, naming each phase :—

Holding and aiming.

Firing.

2. Demonstrate, giving detail with squad imitating, having been ordered to load :—

Holding and aiming.

Look at the target. Push forward the safety-catch. Bring the rifle into the shoulder, keeping both elbows on the ground. Hold the rifle firmly with both hands. Take the first pressure the moment the butt comes into the shoulder. Lower the cheek to the butt, eyes well back from the cocking-piece. Close the left eye and aim. To raise or lower the muzzle, if this is necessary, move the body backwards or forwards on the elbows without altering the grip on the rifle. Return to the position for loading. (*See Figs. 14 and 15.*)

3. Practise squad.

4. Explain :—

Slow rate of fire and responsibility for loading.

The normal slow rate of fire is five rounds a minute. On service, after the rifle has once been loaded, the soldier is responsible that his magazine is kept filled until "Unload" is ordered. When the command "Stop" is given, the soldier will come to the loading position and apply the safety catch. Whenever necessary, advantage should be taken of this opportunity for loading.

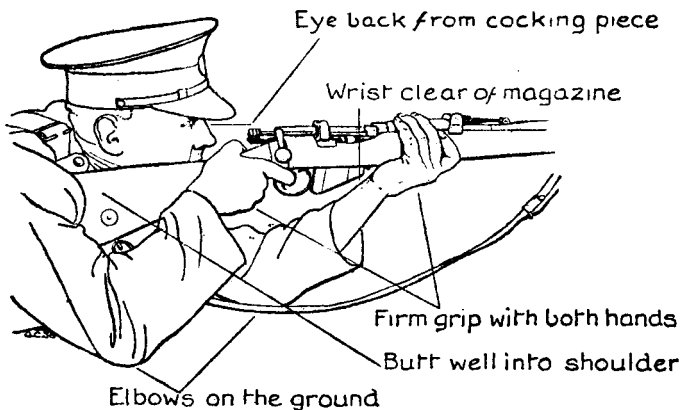


FIG. 14

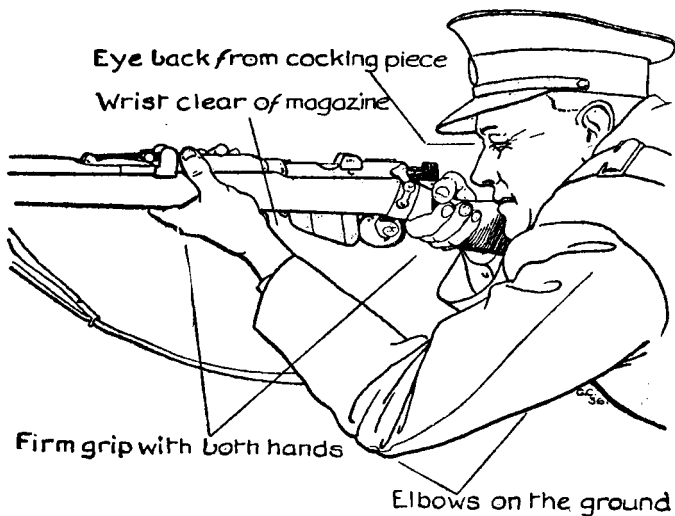


FIG. 15

5. Demonstrate, giving detail, with squad imitating.

Firing.

On the number of rounds being ordered, push forward the safety-catch.

On the command "Fire," bring the rifle into the shoulder, take the first pressure and aim.

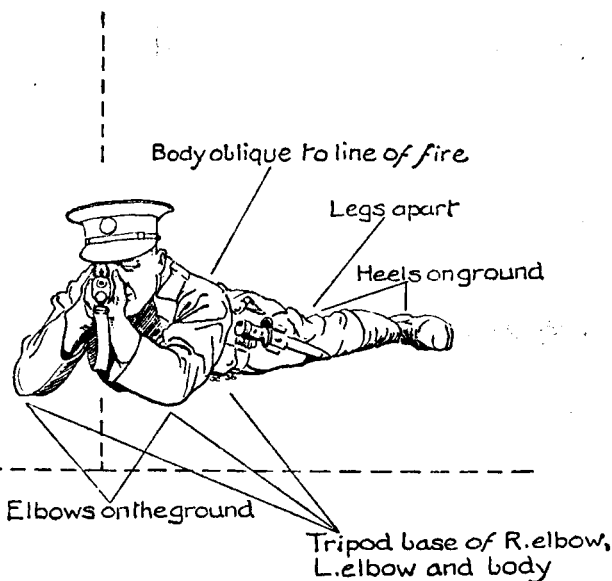


FIG. 16

When satisfied that the aim is correct, check the breathing while taking the second pressure. Declare as truthfully as possible the aim at the moment of discharge, *i.e.* "Correct," "High," "Low," etc.

Keeping the head still and right elbow down, reload at once with the rifle in the shoulder; lower the rifle to the position for loading.

6. Practise squad.

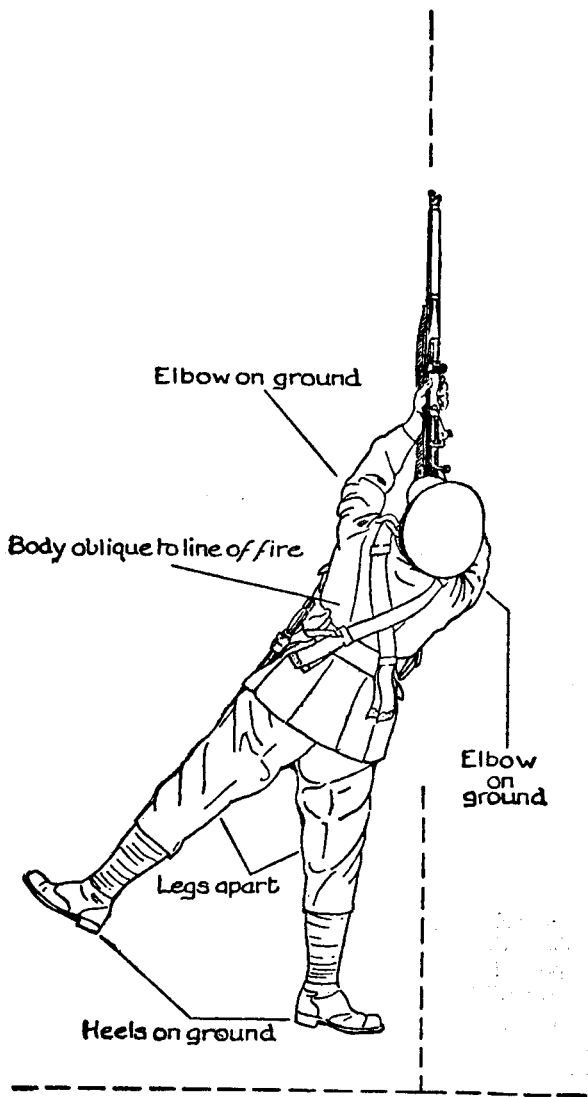


FIG. 17

7. Explain :—

Aids to good shooting :—

Physical fitness.

Bolt to be " bright clean " and slightly oiled.

Firm grip with both hands.

Tilt the rifle slightly to the right when reloading.

Keep the head still.

Count the number of rounds.

8. Practise squad in Lessons 13 and 14, occasionally checking aims. Dummies must not be used in checking with the aiming disc.

9. Final five minutes (*see* para. 8, page 32).

LESSON 15.—KNEELING POSITION

Instructor's Notes

As for Lesson 14.

1. Explain :—

The kneeling position is used on service for firing from a low wall, a bank, in long grass, or in crops or scrub which would obstruct the line of sight if the lying position were adopted.

2. Demonstrate the position, naming each phase :—

Position for loading.

Loading and sight setting.

Unloading.

3. Demonstrate, giving detail, with squad imitating :—

Position for loading.

To kneel.—Take a walking pace forward to the right front with the left foot. At the same time change the rifle into the left hand, grasping it at the point of balance, rifle on the right side of the body, muzzle up and to the front. Kneel down on the right knee, keeping it well out to the right; sink the body on to the right heel, right hand grasping the small of the butt, left forearm resting behind the left knee, butt of rifle resting on the right thigh (*see Fig. 18*).

To return to the order.—Stand up, grasping the rifle near the band with the right hand and, at the same time, bring the left foot back to the right, return to the order and stand at ease.

4. Practise squad.

5. Loading, sight setting and unloading—as already taught. Practise squad by word of command.

6. Demonstrate, naming each phase—Holding and aiming—firing.

7. Demonstrate, giving detail, with squad imitating, having been given the order “Kneeling, Load . . . hundred.”

Holding and aiming—firing.

Look at the target; push forward the safety-catch; without raising the left arm, slide the left elbow forward until it rests either behind or in front of the left knee, whichever is the more convenient (*see Fig. 19*).

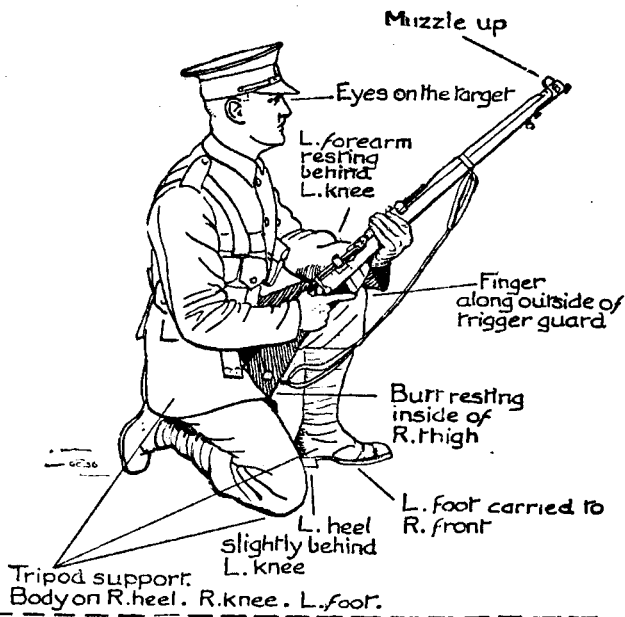


FIG. 18



FIG. 19

To raise or lower the muzzle, if this is necessary, move the body backwards or forwards on the right heel. Fire as in the lying position. Return to the loading position.

8. Practise squad.

9. Practise squad in complete lesson.

10. Final five minutes (*see* para. 8, page 32).

LESSON 16.—STANDING AND SITTING POSITIONS

Instructor's Notes

As for Lesson 14.

Standing position

1. Explain.—The standing position is used to fire over high cover, to take a snapshot during an advance, to fire at aircraft and to charge magazines.

2. Demonstrate the position, naming each phase :—

Position for loading.

Loading and sight setting.

Unloading.

3. Demonstrate, giving detail, with squad imitating :—

Position for loading.

Turn half right.

Carry the left foot to the left so that the body is equally balanced on both feet. Cant the rifle forward and catch it at the point of balance with the left hand, the muzzle pointing upwards, small of the butt just in front of the hip.

To return to the order.—Seize the rifle with the right hand near the band ; at the same time bring the left foot back to the right, return to the order and stand at ease.

4. Practise squad.

5. *Loading, sight setting and unloading*, as already taught. Practise squad by word of command.

6. Demonstrate holding, aiming and firing.

7. Practise squad.

8. Practise squad in complete position.

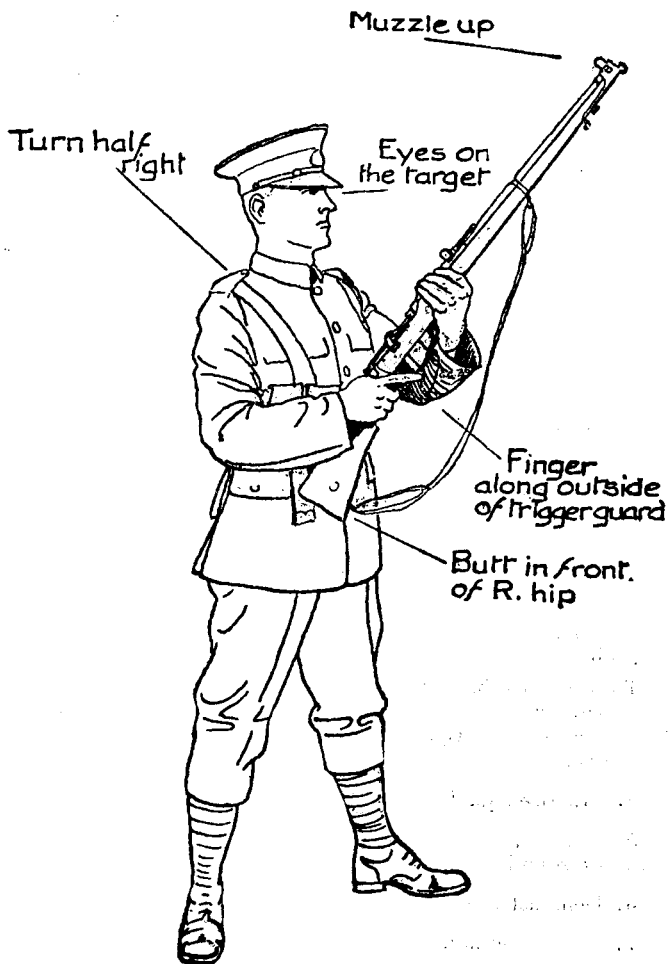


FIG. 20

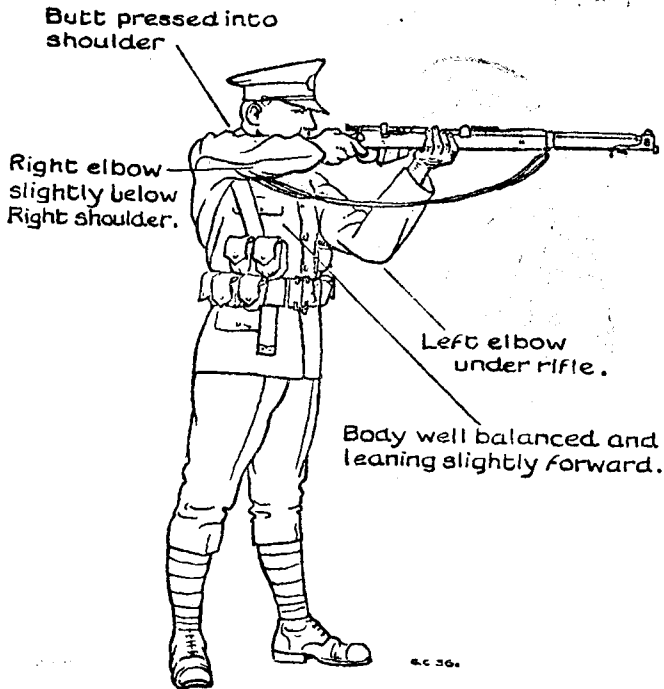


FIG. 21

Sitting Position

(Steep sloping ground must be used for this lesson.)

9. Explain.—The sitting position is used to fire from a steep slope, down or across a valley.

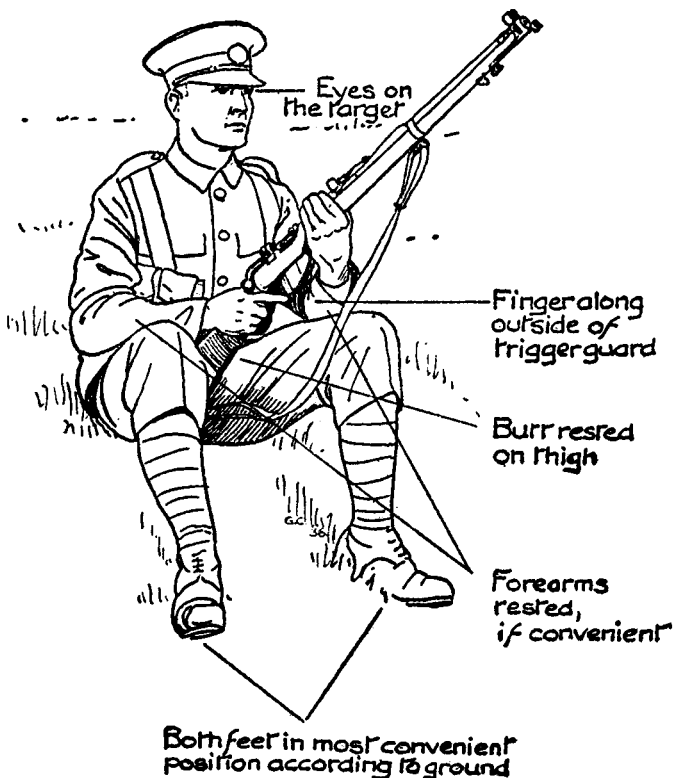


FIG. 22

10. Demonstrate position with detail.
11. Practise squad.
12. Final five minutes (*see* para. 8, page 32).

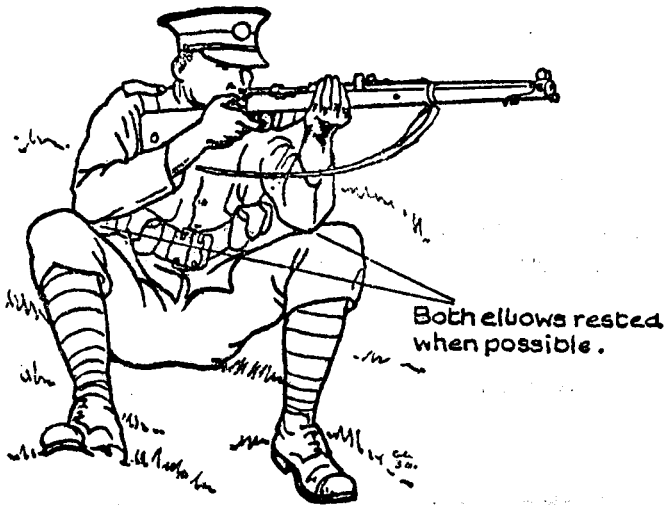


FIG. 23

LESSON 17.—SNAPSHOOTING

Instructor's Notes

Stores.—

Aiming discs for half the squad.

1. Explain that to hit an enemy appearing suddenly for a few seconds, it is necessary to fire one or two shots quickly—speed in firing and reloading may enable a second shot to be fired before the enemy disappears. This is termed "SNAPSHOOTING."

Distance between muzzle of rifle
and aiming disc about one pace.

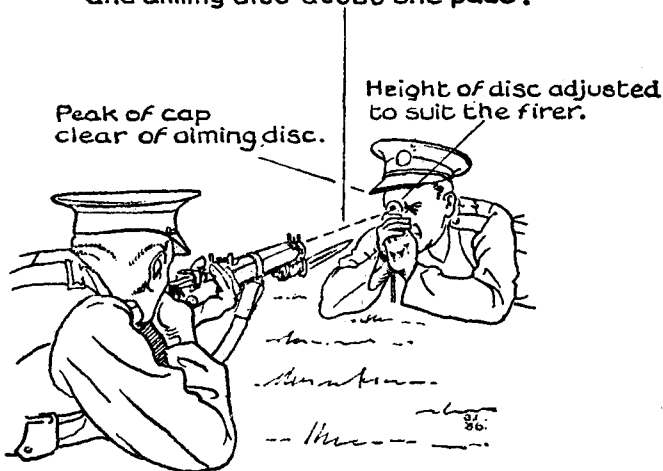


FIG. 24

2. Explain and demonstrate, emphasizing:—

- i. Action on command—"Watch your front." Push the safety-catch forward.
- ii. Correct position.
- iii. Necessity for quick aiming.
- iv. Reloading quickly.

3. Give conditions of test.

4. Teach squad the method of using the aiming disc and practise squad in pairs as follows :

Squad opened in two ranks. Mutual inspection of arms and pouches in pairs. Ranks facing each other at six paces. Dummies will not be used. Men of one rank, using aiming discs, give the order " Fire " and check the aims of men of the other rank. Instructor occasionally checks individuals with aiming disc. Fix bayonets and introduce a time limit of five seconds as progress is made.

5. Final five minutes (*see* para. 8, page 32).

LESSON 18.—SNAPSHOOTING (*continued*)

Instructor's Notes

Stores.—

Small snaphooting targets at 100 yards.

Large snaphooting targets at 300 yards.

Silhouette targets, Figs. 3 and 4 at ranges up to 300 yards.

Fatiguemen to work targets on pre-arranged signal.

Signal flag.

Representative targets for Territorial Army if the lesson cannot be given at proper distances.

As progress is made, exposure will be reduced from 5 seconds to 3 seconds and then increased to 10 and 6 seconds so that two shots can be fired. Exposures will be from different places. Bayonets will occasionally be fixed.

Fatiguemen may be used to represent an enemy in the later stages, moving and disappearing as previously rehearsed.

1. Explain the arrangement of exposures and that squad will fire at any targets that appear.
2. Order squad to "Load . . . hundred," "Watch your front."
3. Signal exposure of targets in the order small, large and silhouette, as previously arranged.
4. Final five minutes (*see para. 8, page 32*).

LESSON 19.—RAPID FIRE

Instructor's Notes

Stores.—

Targets for each man.

Aiming discs for half the squad.

1. Explain :—

Rapid fire is the maximum effort of the rifleman, and is only required for short but critical periods. For this reason every effort must be made to reach a high standard.

2. Demonstrate :—

Rapid fire (10 rounds) and emphasize the following :—

· Rifle into the aim on the word " Rapid."

Butt into the shoulder except when loading with a fresh charger.

No declaration of aim.

No sacrifice of accuracy for speed.

Apply safety-catch after firing the number of rounds ordered or on command " Stop."

3. Give conditions of test.

4. Practise squad with aiming discs in pairs as in Lesson 17. Fix bayonets as progress is made.

5. Practise squad with dummies without aiming discs. gradually working up to a speed of 10 rounds in 40 seconds.

6. Final five minutes (*see* para. 8, page 32).

LESSON 20.—FIRING BEHIND COVER—LYING POSITION

Instructor's Notes

Arrange for suitable cover to be available.

" Standing load " and ground arms.

Assemble squad beside cover.

Avoid precise drill movements.

Do not insist on exact similarity of action on the part of individuals.

Criticism and correction of positions, actions, etc., will be made as far as possible by interrogation, to encourage those under instruction to use their intelligence.

As progress is made, bayonets will be fixed.

When all positions behind cover have been learnt, squad should be given a demonstration of using cover incorrectly and correctly in all positions. Squad should face the cover in the lying position and note the amount of movement and exposure.

1. Explain :—

- i. On service it is necessary to make use of ground to give protection and concealment. Every soldier is, therefore, taught to select positions behind cover and to use his weapons to the best advantage from such positions. When circumstances permit, all movements which entail exposure should be carried out cautiously.
- ii. The types of cover which may be met with on service are :—

Folds in the ground.

Banks.

Hedgerows.

Trees and bushes.

Shell-holes.

Walls.

Rocks.

Trenches.

Cover may be continuous or isolated, and may be cover from fire or only cover from view.

Good cover should :—

Permit a free use of the weapon.

Have a good field of fire.

Be bullet-proof.

Be inconspicuous.

Be easy to advance from.

iii. The main conditions to be observed by a firer when using cover are :—

Modification of position to suit the cover so that he can see his target and use his rifle effectively.
No undue movement or exposure.
Correct resting of the rifle. (See Fig. 29.)

2. Explain and demonstrate :—

i. *Position behind cover.*—Body, rifle and bayonet (if fixed) completely concealed in any convenient position (see Fig. 25).

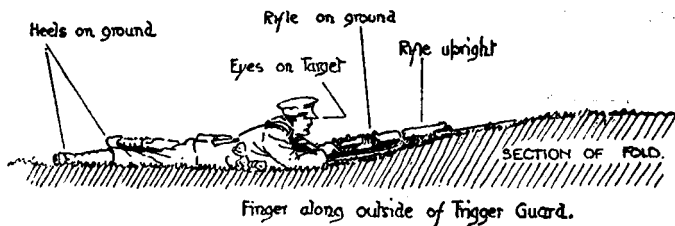


FIG. 25

ii. *Sight setting and position of readiness.*—Position of readiness will be adopted whenever a range is ordered or on the order "Stop." On the order "... hundred" being given, slide rifle cautiously forward on its side, set sights in most convenient way, turn rifle upright and rest it on the cover with butt on ground.

3. Practise squad.

4. Explain and demonstrate either slow, snapshooting or rapid fire.

i. *Aiming and firing.*—Methods are the same as in the open.

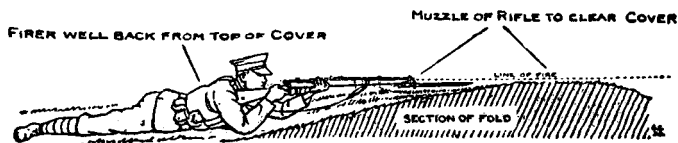


FIG. 26

ii. *Position of observation.*—This enables a man to watch his front in a comfortable position. Rifle held as in position behind cover.

5. Practise squad slow fire, snaphooting and rapid firing by word of command.

6. Explain and demonstrate firing round cover.

In firing round cover the normal position will be adopted

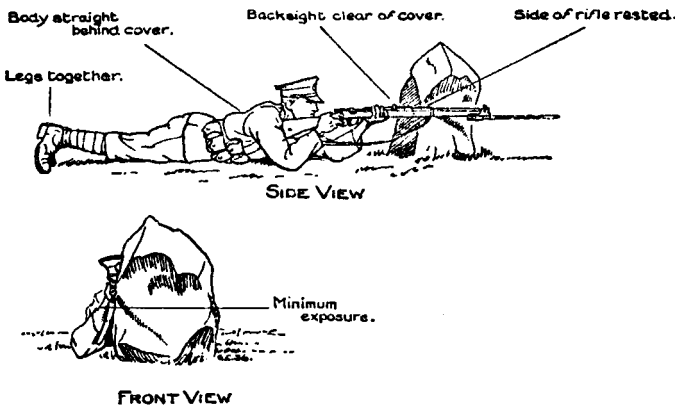


FIG. 27

with the side of the rifle steadied against the cover, but, when such cover is isolated, the legs will be together behind the cover so as to avoid unnecessary exposure (see Fig. 27).

7. Practise squad in taking up positions for firing round cover or behind isolated cover.

8. Final five minutes (see para. 8, page 32).

LESSON 21.—FIRING BEHIND COVER—KNEELING OR SITTING POSITION

Instructor's Notes

As for Lesson 20.

1. Explain and demonstrate :—

The kneeling or sitting positions are used to take advantage of some types of cover.

- i. *Position behind cover.*—Body, rifle and bayonet (if fixed) completely concealed in any convenient position.

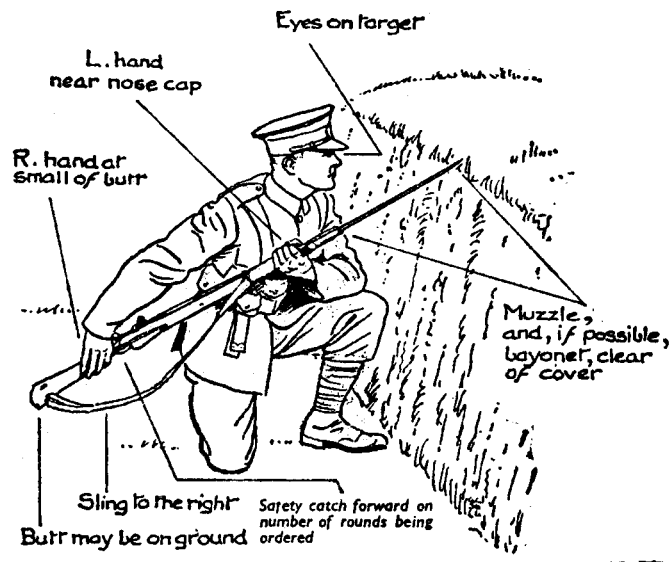


FIG. 28

- ii. *Sight setting and position of readiness.*—Position of readiness (see Fig. 28) will be adopted whenever a range is ordered or on the order "Stop." On the order "... hundred" being given, set sights in most convenient way.

2. Practise squad.

3. Explain and demonstrate.

- i. *Aiming and firing.*—Methods of firing slow and rapid are as previously taught, but in snapshooting there are certain differences.

Left hand and forearm rested if cover suitable.

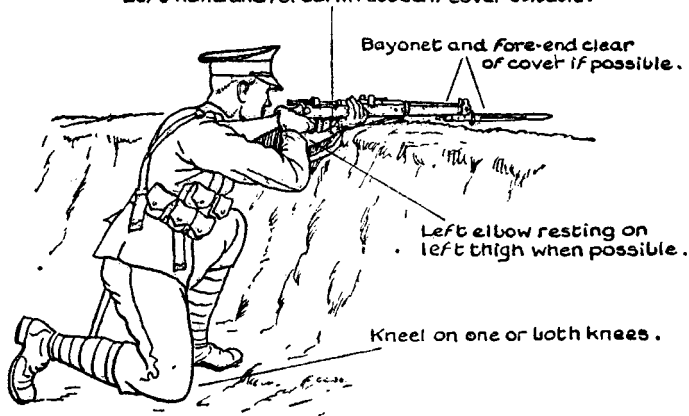


FIG. 29

When snapshooting, slide the rifle forward until it is resting on the cover and fire.

If a second shot is not necessary, return to position of readiness.

When firing slow or rapid, the rifle will be kept on top of cover and the butt in the shoulder throughout.

To load with a further five rounds adopt a convenient position behind cover, load (see Fig. 32) and return to position of readiness. If, however, more than five rounds rapid fire is ordered, load the additional rounds on top of cover.

Explain that cover may necessitate kneeling on both knees or sitting.

- ii. *Position of observation.*—This enables a man to watch his front while in a comfortable position. Rifle and bayonet (if fixed) should be under cover with safety-catch applied.
4. Practise squad slow fire, snapshooting and rapid fire by word of command.
5. Final five minutes (see para. 8, page 32).

LESSON 22.—FIRING BEHIND COVER—STANDING POSITION

Instructor's Notes

As for Lesson 20.

1. Explain and demonstrate.

The standing position is generally used on service in firing from a trench.

- i. *Position behind cover.*—Body, rifle and bayonet (if fixed) completely concealed in any convenient position.

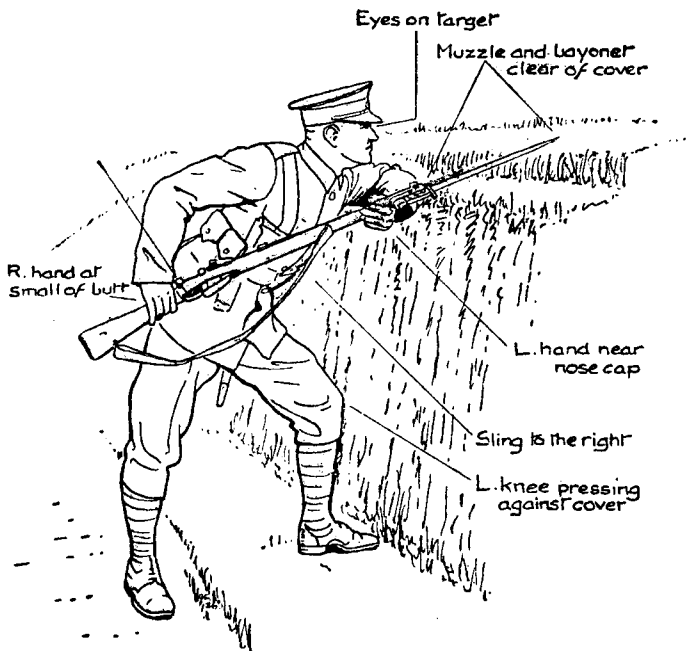


FIG. 30.

- ii. *Sight setting and position of readiness.*—As for kneeling—Lesson 21 (see Fig. 30).

3. Explain and demonstrate snaphooting.

Methods of firing as in the kneeling position—Lesson 21.

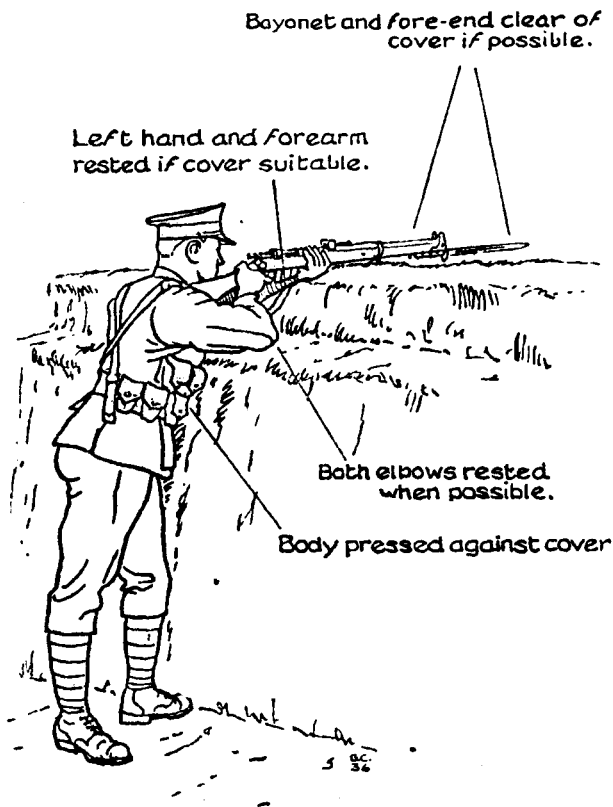


FIG. 31

4. Explain method of loading with a further five rounds (see Fig. 32), as in kneeling position (Lesson 21).

5. Explain and demonstrate *position of observation*.—This enables a man to watch his front while remaining in a comfortable position. Butt of rifle on the ground and safety-catch applied.

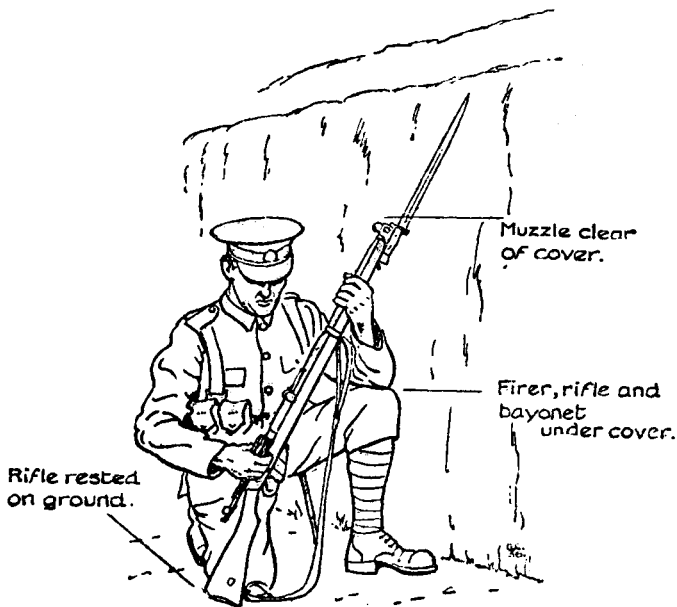


FIG. 32

6. Practise squad slow fire, snapshooting and rapid firing by word of command.

7. Final five minutes (*see* para. 8, page 32).

SECTION 4.—FIRE DISCIPLINE TRAINING

1. *Object.*

This subject will be introduced as soon as firing positions in the open and behind cover have been taught, with the object of producing rapid and accurate obedience to all orders and a correct and intelligent use of the rifle in all circumstances.

2. *Method.*

- i. The lesson in this subject must be repeated frequently. It may be carried out collectively although it is particularly for training the individual. It should consist of a simple exercise to teach accurate and quick obedience to fire orders, and to develop the accurate use of weapons.
- ii. The lesson will be given concurrently with other lessons in elementary training on which it is based, namely :—
 - Use of the rifle in the open and behind cover.
 - Visual training and recognition.
 - Judging distance.
 - Rapid fire and snaphooting.
 - Range practices on miniature, 30-yards and open ranges.
 - Anti-gas training.
- iii. A supposed position of the enemy will always be pointed out. The position of the instructor must be that of the fire unit commander in battle until he has completed his fire orders. He will then move about to check faults. Individuals are responsible for recognizing the target.
- iv. Standing, kneeling and sitting positions will only be practised under conditions under which they would be used.
- v. Rapid fire should never be ordered or allowed, unless the target justifies its use.
- vi. Bayonets will normally be fixed when operating within 300 yards of the enemy, unless instructions are issued to the contrary.

LESSON 23.—INDIVIDUAL FIRE DISCIPLINE TRAINING

Instructor's Notes

(See page 60, to find the stage at which this lesson should be introduced.)

The normal firing position will be lying, unless other orders are given.

Select a supposed enemy position at a suitable range. Extend squad.

As progress is made, each man will use existing cover and adapt his position to it.

1. At the halt (with dummies).—Easy service aiming marks will be used and ranges given must be approximately correct.

Order "Load" and give a fire order.

Check squad, paying attention to the following points:—

Position adopted by the firer, quick manipulation of bolt, loading, safety-catch, and buttoning of pouch.

Correct sight setting.

Recognition of targets.

Difference between rapid, slow and snapshooting.

Action on "Stop" and "Unload."

Alertness of the men in attending to fresh orders.

Count the number of rounds.

2. On the move (no dummies).

After a short advance give a fire order.

Check as in para. 1 above. Additional points are:—

Keeping proper extensions.

Cautious preparatory movement before getting up.

Getting down quickly.

3. Repeat 1 and 2 as necessary.

TESTS OF ELEMENTARY TRAINING

GENERAL

There are nine tests. Of these, certain must be carried out by testing one man at a time; others may be carried out collectively and this should be done whenever possible.

During instruction in aiming and firing, the attention of recruits will be drawn to these tests, so that they will realize what standard will eventually be expected from them.

Particular attention will be paid to the correct firing positions before each test is begun.

No. 1.—Care of the rifle and ammunition.—Each man will be asked four questions.

Standard.—Three out of four to be answered correctly.

No. 2.—Adjustment of sights.—Four distances will be named. The position of the individual being tested will be varied, *i.e.* lying and kneeling in the open. Bayonet fixed, except for recruits.

Variations between distances ordered will not exceed 400 yards.

Standard.—Three correct adjustments out of four. Each within three seconds, time to be taken from the last sound of the range given to the moment when the slide is fixed.

No. 3.—Aiming.*—This test is carried out from aiming rests. Aims will be laid at:—

(a) Small target 200 yards (two aims).

(b) Fig. 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.

No. 4.—Trigger pressing.—Trigger pressing will be tested by means of the aiming disc. Accuracy of aim and correct trigger pressure are essential. Dummies will not be used.

Standard.—Three correct trigger pressures out of four.

No. 5.—Aiming off.—

A. Regular Army.

The test will be carried out with rifles and aiming rests, using small target and Fig. 2 silhouette up to 300 yards.

* In the Territorial Army this test may be carried out on representative targets.

Men will be ordered to aim their rifles at different points of aim in the case of the small target (*see* Lesson 9) or target widths in the case of the Fig. 2 silhouette target.

Two aims will be laid at each target.

Limit.—Small target—edge of target.

In checking, the aim will be considered correct if it is approximate to the centre of the auxiliary.

Standard.—Three correct aims out of four.

B. Territorial Army.

The test will be carried out as for the Regular Army, except that representative targets may be used at 25 to 15 yards according to visibility and conditions.

No. 6.—**Snapshotting.**—The man is required to bring the rifle from the loading position to the shoulder, to align the sights on an aiming disc held to the eye, to press the trigger and instantly reload in the shoulder. Unless these actions are completed, he will fail.

The time allowed from the order "Fire" until the trigger is pressed will be 4 seconds. For timing, a stop-watch or ordinary watch with a second hand will be used. Position—lying. Bayonet will not be fixed. Dummies will not be used.

Standard.—Three out of four aims to be correct.

No. 7.—**Rapid firing.**—The man (rifle loaded with 5 rounds) on the command "Rapid" comes into the aim, and on the order "Fire" will fire 10 rounds at a target; the pouch will be buttoned up when each charger is withdrawn. On completion of the 10 rounds he will load with a fresh charger, apply safety-catch and button up the pouch. All actions to be completed in one minute from the order "Fire." Bayonets fixed, except for recruits. Aim will be checked with an aim corrector.

Standard.—Eight shots to be correct out of ten.

No. 8.—**Firing positions behind cover.**—Bayonets fixed. Inspections in all positions behind suitable cover. Those who make serious faults will fail.

No. 9.—**Recognition.**—(To be carried out in the open whenever possible.)

The men being tested should each have an aiming rest.

The instructor will describe some suitable target.

The men aim their rifles at the point which they recognize from the description. Four targets will be indicated for every man tested and each method of indication (*see* Pamphlet No. 2) will be employed.

Standard.—Three out of four points described must be recognized.

When grouping with .22-inch ammunition, recruits will be expected to reach the qualification laid down for the Empire Test. For trained soldiers the standard will be a 2-inch group at 25 yards.

For test in connection with the adjustment of the respirator, *see* Protection Against Gas and Air Raids, Pamphlet No. 2.

CARE OF NO. 2 RIFLE, .22-INCH

(For the information of weapon training instructors and men in charge of miniature ranges only)

To preserve the high standard of accuracy necessary for training, by avoiding damage to the bore, the following instructions will be strictly obeyed :

1. One individual will be given charge of the rifles.
2. An armourer or instructor will inspect the rifles monthly.
3. A record of each inspection will be kept for the information of the C.I.S.A. or R.A.O.C. representative at the quadrennial inspection.

Ammunition MK I.N.R.

4. MK I.N.R. Ammunition (*see* List of Changes in War Material, para. A.7307) leaves a deposit in the bore which protects it and prevents rust. This deposit must not be removed by cleaning or oiling the bore, except for inspection by an armourer or for examination to discover suspected inaccuracy from lead fouling. After such an inspection, the bore will be oiled until the rifle is again required for shooting, when it will be dried out in the ordinary way. The protective deposit is replaced by firing, and further cleaning is unnecessary.

Before MK I.N.R. ammunition is taken into general use, the bore must be cleaned by the method given below. No protection to the bore will be afforded if fouling from other ammunition is present.

- i. Pour four pints of clean boiling water through the bore.
- ii. Dry the bore immediately with flannelette until the patches come out clean.
- iii. Oil the bore with a $\frac{3}{8}$ -inch strip of flannelette, and dry it out before taking the rifle into use.

All types of ammunition other than MK I.N.R.

5. When types of ammunition other than MK I.N.R. are used, rifles will be cleaned as follows :—

- i. Fix the rifle in a vice or wooden holder.
- ii. Insert the cleaning rod from the breech end (bolt removed), to prevent bell mousing of the muzzle.

- iii. Make sure that the rod, brush and cleaner are free from dust and grit and are not bent. Carelessness in this will damage the bore.
- iv. Clean the bore after firing 60 rounds (not oftener) with the rod and cleaner with a strip of flannelette $\frac{1}{2}$ inch wide in the eye.
- v. After firing is finished for the day, clean the bore first with rod and brush, and then with the cleaner and flannelette, replacing the flannelette until it comes out clean. Oil the bore with a $\frac{3}{8}$ -inch strip of flannelette.
- vi. Dry the bore before firing begins again.
- vii. Clean the brush frequently in paraffin to free it from fouling.

THE SNIPER'S RIFLE

(To be taught on unit cadre courses.)

1. *Method of focusing.*

- i. Loosen clamping screw.
- ii. Hold telescope steady—look through as in using ordinary telescope—with eye about 2 or 3 inches away—should have a full field of view.
- iii. Move focusing slide backward or forward until a clear view is obtained.
- iv. Tighten clamping screw.
- v. Take care to keep slide in the same position when tightening up clamping screw.

2. *How to attach telescope to rifle.*

- i. See that fixing lever on left of rifle body is to the rear.
- ii. Place the two hooks under trunnions.
- iii. Drop rear end into rectangular slot on left of body.
- iv. Turn lever over to front to engage.

3. *Method of loading with telescope attached.*

- i. Chargers cannot be used unless telescope is removed.
- ii. Load with 5 rounds singly.

4. *Adjustment of sight.*

- i. Explain markings and figures on range scale.
- ii. Loosen range drum clamping screw.
- iii. Turn range drum with thumb and forefinger until line required on range scale is opposite reference mark on saddle.
- iv. Tighten clamping screw.

5. *Method of aiming.*

- i. Use aiming and head rests.
- ii. Illustrate with large diagram.
- iii. Sights upright (cross wire a good guide when actually aiming).
- iv. Close disengaged eye.
- v. Eye about 2 to 3 inches away.
A full field of view must be obtained. (If floating aperture is visible, the eye is either too near or too far away from telescope.)
- vi. The object aimed at to be balanced on top of pointer, the only part of sights visible. The centring of sight in aperture is automatic.

METHODS OF ADJUSTING ERRORS OF TELESCOPE

1. For deflection.

- i. Remove ray shade.
- ii. Slacken the three screws fixing prism cell.

With adjusting key turn cell containing prism as required, viz. clockwise if rifle is shooting to the right; anti-clockwise if rifle is shooting to the left.

By turning the cell the prism is also turned, thus bending the ray of light. The sight itself is not moved.

One division on adapter gives approximately 5 inches for each 100 yards.

2. For elevation—i.e. incorrect reading of range scale.

Example.—Rifle shooting correct at 200 yards range with 300 yards line opposite reference mark on saddle.

To get sighting elevation and reading to coincide:—

- i. See that range drum clamping screw is securely tightened.
- ii. Loosen the two small twin screws securing washer in centre of range scale ring.
- iii. Turn range scale ring until correct reading is obtained.
- iv. Tighten up twin screws.

Note.—When a lateral adjustment is made, the accuracy of the range scale for elevation should be checked, as it may happen that the elevation was altered during the lateral adjustment. In adjusting, therefore, it is important that the adjustment for lateral deflection should be made first (if necessary); then the adjustment for elevation should be made.