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SECTION LEADING

1928

WAR OFFICE.

A guide for the Training of Non-Commissioned
Officers as Commanders of Rifle and Lewis-gun
Sections.



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By Command of the Army Council,

H. G. Creedy

THE WAR OFFICE,
31st January, 1928.

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INTRODUCTION

1. It is the duty of the section commander to train his section and to lead and command it in the field in accordance with the principles laid down in Infantry Training, Vol. II.

This manual is a guide for the training of non-commissioned officers and private soldiers as commanders of infantry sections in war.

2. In battle the section commander will carry out the orders and comply with the intentions of his platoon commander. Disciplined initiative will be encouraged.

The platoon commander makes his plan, in accordance with the orders he has received. He gives his orders to his section commanders and they carry them out. To do this successfully section commanders must be able to give clear and concise orders, including executive fire orders, to their men, they require to have an eye for country and to understand the use of ground and cover, and their sections must be trained to understand and carry out their orders.

Section commanders have not only to keep their own sections under control; they must also keep themselves under the control of their platoon commanders. Once control is lost, co-ordination becomes impossible. The section is an integral part of the platoon.

3. By personal courage, by knowledge of his profession, and by moral qualities, the section commander must gain the respect of his men, so that they can be relied upon to carry out his orders in the stress of battle.

4. The section commander's administrative duties in connection with the arms, equipment, clothing and rations of his men, and the care of their feet, are not dealt with in this manual. This side of his training will run concurrently with battle training.

CHAPTER I

LEADERSHIP

1. *The qualities of a leader*

1. The development of the necessary moral qualities is the first object to be attained in the training of an army.

2. No successful military leader has ever existed who did not possess what is described as "character." The exact definition of the term "character" is not easy, but the various qualities which go to make up "force of character" should be explained to the prospective section commanders on the following lines, in simple language.

3. They are:—

- i. Unselfishness.
- ii. Loyalty.
- iii. Determination.

4. **Unselfishness** implies subordination of self to consideration for others: playing for your side rather than for yourself. In all places, under all conditions, it implies tact and a knowledge of human nature. It should not in any way run counter to discipline, which is maintained by good example, rather than by punishment. The brave man is always unselfish.

5. **Loyalty** in its widest sense means loyalty not only to the King, country, army, regiment, or cause, but also

to the wishes, orders, and teaching of the immediate superior. The terms "quite straight" or "playing the game" are implied in the term "loyalty".

6. **Determination** means "seeing a thing through," once the plan has been decided upon, no matter what opposition is met with. Go on trying—it is akin to stout-heartedness and the fighting spirit, and requires constant effort of will. Every obstacle overcome by an individual definitely increases that individual's powers of determination.

7. Simple, concrete examples drawn from episodes in war or peace should be related in explanation.

8. After suitable explanation of the above, the section commander should have clearly in his head something like this:—

- I must play up for my section, and be sympathetic to the men under my command, set a good example, and maintain discipline firmly.
- I must go on trying and never give up.
- I must "play the game"—by my regiment, by my company, by my platoon commander, and by my platoon sergeant.

CHAPTER II

TRAINING

2. *The standard of training*

1. In order to be able to lead his section, a section commander must know:—

- i. How to employ the weapons with which his section is armed.
- ii. How to use ground.
- iii. The four section formations (Sec. 15, 1) and how to use each.

2. Every section commander must understand the difference between what a private soldier must know about these three subjects and what he himself has to know:—

i. Weapons—

A private soldier must be skilled in the use of the section weapons, and must use them as ordered by his section commander.

A section commander must be himself skilled in the use of the section weapons, must decide, also, subject to his platoon commander's orders:—

- i. The weapon to use.
- ii. When to use it.
- iii. The place from which to use it.
- iv. The target.
- v. The rate of fire.

ii. **Ground.**—Knowledge of ground is essential to enable:—

A private soldier to make the best use of ground he is ordered to occupy or move over.

A section commander to adopt the most suitable formation, and, subject to his platoon commander's orders, to lead his section by the least vulnerable line of approach and to select the best fire positions.

iii. **Formations.**—

A private soldier must know his position in each formation and how to get into it, when ordered by his section commander.

A section commander decides, subject to any orders from his platoon commander, which formation shall be used and order it accordingly.

3. *The syllabus of instruction*

1. The syllabus for the training of section commanders will include:—

- i. Instruction in the three subjects, weapons, ground, and formations, separately.
- ii. Instruction in these three subjects in combination.

2. The instruction should take the following sequence:—

- i. (a) The organization of a bat- Chapter III.
talion.
- (b) The arms and equipment of the rifle and Lewis-gun sections.

(c) The characteristics of the section weapons.

(d) Ammunition supply.

ii. Application and control of fire. Chapter IV.

iii. (a) The use of ground:— Chapter V.

(i) In fire positions.

(ii) In movement.

(b) The use of formations:—

(i) The various section formations and when they should be used.

(ii) How to change from one to another.

iv. Intercommunication, i.e., the Chapter VI.
method of getting information—

(a) To his superiors,

(b) To those under his command.

v. The leading of the section in the Chapter VII.
attack.

vi. The leading of the section in the Chapter VIII.
defence.

vii. The principles of protection. Chapter IX.

viii. Simple tactical exercises in fire Chapter X.
and movement in co-operation
with other sections.

CHAPTER III

ORGANIZATION, WEAPONS AND AMMUNITION SUPPLY

4. Organization

1. The section commander must understand the organization of a battalion.

A battalion—

| | | |
|------------------------|---|--|
| Headquarter wing .. | { | No. 1 group—Battalion headquarters, intelligence section,* intercommunications, stretcher bearers, clerks, batmen, &c. |
| | | No. 2 group—Anti-tank section. |
| | | No. 3 group—Maintenance, police, anti-aircraft; Lewis gunners, &c. |
| | | No. 4 group—Band, &c. (absorbed into other groups on mobilization). |

* At War Establishment.

1 machine-
gun company.

3 rifle com-
panies.

A machine-
gun company—
Headquarters.
4 machine-
gun sections.*

A machine-
gun section—
Headquarters.
2 sub-sections,
each with
two machine
guns.

A rifle company—
Headquarters.
4 platoons.

A platoon—
Headquarters.
4 sections, of which the odd numbered sections
are rifle sections and the even numbered sections
are Lewis-gun sections.

In other words, a platoon consists of 4 sections, all
possessing fire power and bayonet power, but two are
relatively stronger in fire power than the other two,
which are stronger in bayonet power.

* At War Establishment.

5. Arms and equipment

1. A rifle section.—A rifle section is armed and equipped as under:—

| | Rifle | Bayonet | Rounds of rifle ammunition* | Grenade discharger | Pouch for discharger | H.E. grenades | Smoke grenades | Wire cutters (if ordered) | Periscopes (if ordered) | Ballistic charges for firing grenades |
|-------------------|-------|---------|-----------------------------|--------------------|----------------------|---------------|----------------|---------------------------|-------------------------|---------------------------------------|
| Section Commander | 1 | 1 | 120 | — | — | — | — | — | — | — |
| No. 1 .. | 1 | 1 | 120 | — | — | — | — | — | — | — |
| No. 2 .. | 1 | 1 | 120 | — | — | — | — | — | — | — |
| No. 3 .. | 1 | 1 | 120 | — | — | — | — | — | — | — |
| No. 4 .. | 1 | 1 | 120 | 1 | 1 | — | — | — | — | — |
| No. 5 .. | 1 | 1 | 120 | 1 | 1 | — | — | — | — | — |
| No. 6 .. | 1 | 1 | 120 | 1 | 1 | — | — | — | — | — |
| Total.. | 7 | 7 | 840 | 3 | 3 | 3 | 9 | 1 | 1 | 12 |

* This may be supplemented, prior to going into action, by the addition of 50 rounds carried in the bandolier.

2. A Lewis-gun section.—A Lewis-gun section is armed and equipped as under:—

| | Lewis gun | Spare parts | Magazines | Pouches | Carriers | Rifles | Bayonets | Revolvers | Rounds of rifle ammunition | Rounds of L.G. ammunition | Rounds of revolver ammunition | Wire cutters (if ordered) | Periscopes (if ordered) |
|-------------------|-----------|-------------|-----------|---------|----------|--------|----------|-----------|----------------------------|---------------------------|-------------------------------|---------------------------|-------------------------|
| Section Commander | 1 | — | — | — | — | — | — | — | 50 | 47 | — | — | — |
| No. 1 .. | 1 | — | — | — | — | — | — | — | — | 47 | — | — | — |
| No. 2 .. | — | — | 12 | 12 | — | — | — | — | — | 94 | — | — | — |
| No. 3 .. | — | — | — | — | — | — | — | — | 50 | 188 | — | — | — |
| No. 4 .. | — | — | 4 | 4 | — | — | — | — | 50 | 188 | — | — | — |
| No. 5 .. | — | — | 4 | 4 | — | — | — | — | 50 | 188 | — | — | — |
| No. 6 .. | — | — | 4 | 4 | — | — | — | — | 50 | 188 | — | — | — |
| Total .. | 1 | 1 | 20 | 19 | 2 | 5 | 5 | 2 | 250 | 940 | 36 | 1 | 1 |

6. Weapons

1. The different weapons which may be under the control of a section commander are thus:—

Rifle
Bayonet
Lewis gun.
H.E. grenades.
Smoke grenades.
Revolver.

2. The section commander must understand not only how to develop the skill of his men in handling these weapons, but also to control their employment in action.

3. He must therefore be able to recognize quickly the opportunities suitable for the employment of each particular weapon and then be able to get the weapon he has selected, subject to any orders he may have received from his platoon commander, employed effectively without delay.

4. To do this he must:—

Understand and *must therefore be given—*

i. The powers and limitations of each weapon, and the conditions under which each can be used to the greatest advantage.

i. *Instruction* in the characteristics of each weapon (including practical demonstrations) illustrating especially—

- (a) The range limits.
- (b) The rates of fire.
- (c) How fire effect is influenced by:—

The type of target.

The shape of the ground.

The trajectory.

Atmospheric conditions.

ii. The system of ammunition supply.

ii. *Lectures* explaining the amount of ammunition for each weapon carried by the section and individual, the place where the next supply comes from, and the means of obtaining it.

iii. The methods by which to control fire.

iii. *Instruction* in—
Indication of targets or aiming marks.
Judging distance.
Construction of range cards.
Fire orders.
Observation of fire.
Application of fire.

iv. Generally the support he can expect from the fire of weapons not contained within the platoon.

iv. Lectures and demonstrations illustrating the co-operation of machine guns and of other arms with infantry.

8. The following sections and Chapters IV and V should form the basis of lectures and demonstrations to classes of section commanders.

7. *Characteristics of the various weapons and their use*

1. *The bayonet.*—The bayonet is the weapon for hand to hand fighting. Its use, or the threat of it,

drives the enemy from the position or causes him to surrender. It should therefore be the ambition of every section commander to lead his section into the hostile position and fight the enemy with the bayonet.

The bayonet is the principal infantry weapon in night fighting.

2. The rifle.—Accuracy is the chief characteristic of the rifle.

i. Range limits.—The bullet fired from the rifle will travel nearly two miles, but the rifle cannot be used effectively beyond the maximum range at which it can be fired with accuracy.

Beyond 1,000 yards the fire of even well-controlled units of riflemen seldom has much effect, and only a very exceptional target, such as that presented by a considerable number of the enemy grouped in a vulnerable formation, would justify its use beyond that range.

Between 1,000 and 600 yards little result can be expected from individual fire of average men, but carefully controlled collective fire may be expected to produce effective results at those ranges.

Within 600 yards, although carefully controlled collective fire will produce the best results, individual fire, when control is no longer possible, should also obtain good effect, provided the firers have been well trained.

ii. Rate of fire.—The rate of accurate fire depends on the degree to which the firers have been trained.

When firing at a normal rate, the man should be able to fire 5 carefully aimed shots a minute; at rapid rate 15 aimed shots a minute.

3. The Lewis gun.—The chief characteristic of a Lewis gun is its power of delivering a heavy volume of fire with the employment of a few men.

i. Range limits.—Up to 600 yards a very high degree of accuracy can be expected from its fire.

Between 600 and 1,000 yards, although the gun will fire with great accuracy, such factors as inability to see clearly the aiming mark, errors in judging the exact range, or in estimating the correct allowance to make for wind, added to the difficulty of observing fire, minimize the chances of obtaining effect against small targets.

Beyond 1,000 yards, unless circumstances are very favourable, it is doubtful whether results can be obtained commensurate with the ammunition expended.

ii. Rate of fire.—Taking into account time for changing magazines and relaying aim between short bursts of fire, an average firer should be able to fire 150 well-aimed shots in a minute. This high rate of fire does not necessarily produce the best effect. Short bursts of fire, with long pauses between them, are often more disconcerting to the morale of the enemy, and entail a smaller expenditure of ammunition. Bursts should consist of 4 or 5 rounds, and in rapid fire the intervals between bursts is cut down to a minimum.

4. Considerations affecting rifle and Lewis-gun fire.—

i. Rapid fire.—Rapid fire should be the exception rather than the rule, owing to the expenditure of ammunition entailed. Section commanders should be taught to regard it as a reserve of fire power, to be used

in an emergency, or as a means of reaping full effect from surprise, or when a favourable opportunity justifies a heavy expenditure of ammunition.

ii. *Application of fire.*—It is desirable that every bullet should be fired with the object of actually hitting one of the enemy, but if the enemy has good cover, or if it is difficult to pick up the exact aiming mark, or to locate the position of an individual in the area known to be occupied, the best way to obtain effect is to cover the occupied area with bullets in such a manner that wherever the enemy may happen to be within that area they will be in the path of some of the bullets fired.

The successful application of fire on this principle demands a knowledge of dimensions of cones and beaten zones, of collective rifle and Lewis-gun fire, and how the dimensions of the beaten zones are affected by the shape of the ground, in relation to the trajectory of the bullet.

5. Instruction in this subject should take the form of lectures on the theory of collective rifle and light automatic fire (Secs. 14-32 Small Arms Training, Vol. I, 1924), explained with the aid of diagrams, followed by demonstrations with ball ammunition, to show the areas of ground struck by bullets. False impressions will be given unless such demonstrations include both ground horizontal to the line of fire, and ground sloping at various angles to the line of fire.

6. Targets representing groups of the enemy, in various formations, should be used to point out the degree of vulnerability of the different formations, in

relation to the shape of the beaten zone. The cones of fire are best shown by demonstrations with tracer ammunition.

7. *The rifle grenade.*—The H.E. rifle grenade, No. 54, can be fired at a maximum range of 325 yards, and the smoke rifle grenade, No. 55, at a maximum range of 250 yards. The minimum range for both rifle grenades is 100 yards. The grenade travels on a high trajectory, and falls at a steep angle.

The H.E. grenade, No. 54, is, therefore, suitable for searching behind steep cover and forcing the enemy out into the open, where the rifle and Lewis gun can gain fire effect.

The smoke grenade, No. 55, forms a dense screen of smoke, behind which movement can take place unseen by the enemy.

The area covered by the smoke depends on the wind. Normally the screen remains dense for about 30 seconds; consequently advantage can be derived from it only if the forward movement starts simultaneously with the bursting of the grenade.

Owing to weight the number of grenades which can be carried by a section is strictly limited (Sec. 8, 1); consequently H.E. grenades should be used only when other means of dislodging the enemy are obviously impracticable. Smoke grenades must be used only as indicated by the platoon commander in his plan of action, or in accordance with any subsequent orders issued by him.

8. *The hand grenade.*—The hand grenade is so limited in its range by the powers of the thrower that if used in the open the thrower himself is in the danger

area. Consequently, it must be regarded merely as a means of dislodging or destroying the enemy in cramped fighting, such as house to house or trench fighting. Even in a trench system success can usually be won more cheaply and more quickly by movement above ground, covered by small-arm fire.

9. **The revolver.**—The revolver is the personal weapon of the Nos. 1 and 2 of Lewis-gun sections, for close quarter fighting.

8. *Ammunition supply*

1. The amount of ammunition carried by a section in action is subject to special orders to meet the needs of any particular operation. There is, however, a normal scale which will be carried unless special orders are given to vary the amount.

i. *Rifle section—*

S.A.A. '303.—The commander and men of a rifle section each carry 120 rounds of S.A.A. in their pouches. This may be supplemented, prior to going into action, by the addition of 50 rounds carried in the bandolier.

Grenades—

- 9 smoke grenades 1 each carried by Nos. 1, 2 and 3; 2 each carried by Nos. 4, 5 and 6.
- 3 H.E. grenades 1 each carried by Nos. 1, 2 and 3.
- 3 dischargers 1 each carried by Nos. 4, 5 and 6.

(See also Sec. 5, 1.)

ii. *Lewis-gun section—*

S.A.A. '303.—The normal amount carried by a section, consisting of a commander and 6 men, for mobile operations is 20 magazines, containing 47 rounds each = 940 rounds for the Lewis gun. For rifles, all except the Nos. 1 and 2 carry 50 rounds in chargers.

Revolver ammunition.—Nos. 1 and 2 each carry 15 rounds of revolver ammunition.

(See also Sec. 5, 2.)

2. The first supply for the replenishment of ammunition will normally be obtained as follows:—

- i. S.A.A. '303 from the company pack animals and the Lewis-gun limber.
- ii. Grenades from the grenade limber, with first line transport.
- iii. Revolver ammunition from the S.A.A. limber, with first line transport.

3. Sometimes, when tanks are co-operating, arrangements may be made for them to carry ammunition to hand over to the infantry during an action. Aeroplanes, dropping ammunition, are also a possible means of supply.

4. In position warfare ammunition is sometimes supplied from small ammunition dumps in positions handy for the supply of the forward units.

5. The principle of ammunition supply is: (a) that it should readily be forthcoming on demand, and (b) that it should be sent forward, and no man engaged in action should be allowed to go back to obtain it.

A section commander will inform his platoon commander of his requirements, so that arrangements can be made to have ammunition sent up to the section.

CHAPTER IV

FIRE

(See also Sec. 1, 7.)

9. Indication of targets

1. General remarks.—It is estimated that 75 per cent. of shots on the battlefield are probably wasted owing to bad indication and recognition.

2. In teaching indication, a reference point, or points, with ranges to each, will always be given.

3. Aiming points will be described whenever possible by the direct method, *i.e.*, without aids. If aids are used the reference point will always be named before the description of the aiming point.

4. To ensure uniformity one system of indication is imperative throughout the army.

5. Supplementary methods, known respectively as the vertical clock ray and degree methods, may be used in connection with reference points.

INSTRUCTOR'S NOTES

(Taught in Stages.)

6. 1st Stage.

Description of aiming points, without aids. "Direct," or normal method, using (i) or (ii) as required:—

- i. Indication by description of any obvious target.
- ii. Indication by direction, *e.g.*, slightly, quarter, half, three-quarter, right or left from either.
 - (a) Last target, or
 - (b) General direction in which men are moving or facing, ending up with description of target in each case.

Kit required:—One aiming rest for each section commander.

7. 2nd Stage.

Indication of aiming points, using aids. Aids should only be used when absolutely necessary.

Various Aids

i. **Reference points.**—Prominent objects—about 20° apart—Within the probable target area—Of different kinds. Names by which they are to be known must be made clear to all.

ii. **Vertical clock ray.**—Should only be employed where there is a considerable command of view over the ground. Clock rays show the direction of an object

from a "Reference point." The lowest part of the reference point is taken to be the centre of the face of a clock. The imaginary clock will not always hang absolutely vertically, but should be taken to be lying on the surface of the particular piece of ground in use, and may be sloping towards the observer at any angle between the vertical and the horizontal. The direction of the target right or left of the reference point is given together with the clock ray.

Example: Windmill—Right—4 o'clock—Two bushes (Fig. 1).

FIG. 1.



iii. **Degree method,** the angular distance being measured by graticuled field glasses, by the use of the hand or by any convenient appliance such as the *foresight* or *backsight* of the rifle, or the *foresight* of the Lewis gun.

This method shows approximately the angular distance of the target from the reference point, and can also be used to denote, in the case of a distributed fire order, the lateral width of distribution required to cover the target.

Example: Windmill—Right—4 o'clock—2 degrees—Small bush (Fig. 2).

FIG. 2.



8. All ranks should know what angles are subtended by the various parts of their own hands when held at

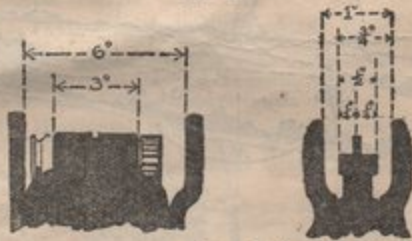
arm's length (Fig. 3) or by the sights of the rifle when held in the aiming position (Fig. 4).

FIG. 3.



NOTE.—Thumb and fingers extended, as shown above (about 19°), fist clenched (8°), first and second knuckles (3°).

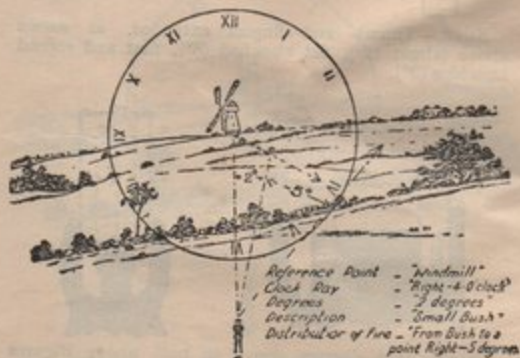
FIG. 4.



NOTE.—The degrees shown in both above Figures are only approximate; each man must test for himself.

9. For purposes of instruction, a portable degree scale (calculated for a given distance, say 10 yards) should be made. A suitable degree scale is made by means of a strong wooden board divided off, and marked into divisions representing degrees at the distance selected. For use at 10 yards the board should be 10 foot long to assist in measuring 10 yards by taking 3 times its length. It should be marked "0" at its centre point and 9 divisions of 6.3 inches marked off on either side of this point, and numbered 1 to 9 consecutively.

FIG. 5.



secutively. For practical purposes this is sufficiently accurate. For purposes of practice a degree scale (calculated for a given distance, say 20 yards) can be painted on a wall in barracks.

NOTE.—The distance in each case will be measured from the position of the eye when in the normal aiming position.

10. The angles subtended may vary slightly with each person. It is therefore necessary for each individual to memorize the angles as seen by him.

11. The indication should end in each case with a description of the aiming point.

12. Example of the use of both the clock ray and degree methods to indicate a target and the amount of distribution required:—Windmill—Right—4 o'clock—2 degrees—Small bush—From bush to a point right—5 degrees (Fig. 5).

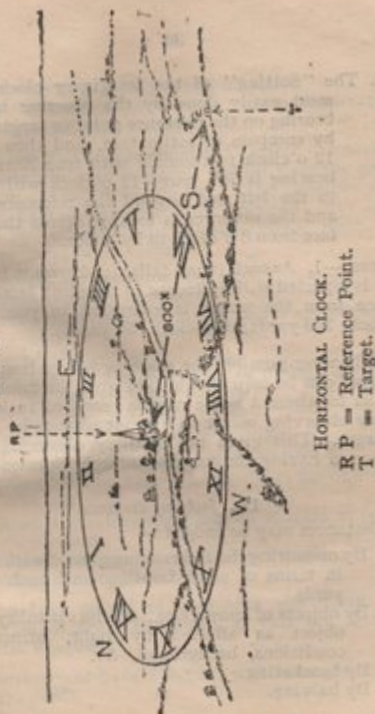
13. Practice in indication.—A rifle is laid on the point or points to be indicated (or pins can be used on miniature landscape targets); the leader under instruction indicates the target by the methods described above. The remainder of the class recognize it.

14. Horizontal clock code.—This code is used to describe targets to an observer at a distance and when the target cannot be accurately located by co-ordinates on a square or gridded map.

i. All officers, warrant officers and senior N.C.Os down to platoon serjeants will be instructed in this method, as it enables infantry to indicate the approximate positions of targets to artillery, machine guns, &c.

- ii. In this method the "Reference point" is taken to be the centre of a clock lying flat on the ground with 12 o'clock pointing approximately true North.
- iii. The position of the target is indicated by using a clock ray combined with the distance between the reference point and the target, *estimated in yards*. (See Sec. 10.)
- iv. In Fig. 6 an infantry observer has seen a gun firing behind some rising ground South of Staple Church, and sends back the following message:—
 "To . . . Ref. Map. HAZEBROUCK 5
 A. 27. Jul. Can see enemy gun firing.
 Six o'clock. 800 yards from STAPLE CHURCH. 1430 hrs. (Signature)."
- v. An advantage of this method is that the receiver of the message need not know the sender's position.
- vi. *Reporting observation of artillery fire.*—It is also possible to report a target to the artillery by this means and subsequently get their fire on to it. The target is reported by the horizontal clock code as in sub-para. iv. It is advisable that the reference point should, if possible, have been agreed on previously with the artillery commander concerned, and in any case it should be a point which can be identified on the map. When the battery starts firing, the imaginary clock is moved so that its centre coincides with the target, 12 o'clock again pointing approximately true North.

Fig. 6.



- vii. The "Setting" of the imaginary clock-face is most easily done by the observer taking a bearing on the reference point or target, either by compass or estimation, and then placing 12 o'clock to coincide with true North, e.g., bearing is 60°, true—12 o'clock will then be to the left and beyond the reference point, and the observer is looking across the clock-face from 8 o'clock to 2 o'clock.

NOTES.—1. As each round falls, its direction from the target is reported with reference to the clock face and its distance from the target is estimated in yards (e.g., 3 o'clock, 200 yards; 9 o'clock, 50 yards).

2. Whenever possible the place or places from which the target can be seen should be stated, or information given as to where a guide can be procured to lead the artillery observing officer to a point whence he can see the target. This gives the artillery observing officer a chance of having the target definitely pointed out to him.

10. Judging distance

1. Distances may be judged:—

- i. By measuring the intervening ground with the eye in terms of some familiar unit such as 100 yards.
- ii. By objects of known size; by the visibility of the object as affected by light, atmospheric conditions, background, &c.
- iii. By bracketing.
- iv. By halving.

- v. By use of key ranges and maps.
- vi. By the mean (or average) of the estimates of several individuals.

2. All methods will be practised until it is found that distances can be approximately judged from the general impression conveyed to the eye. The observer must, however, bear in mind that his judgment may be influenced by certain conditions of ground, light, &c., which are mentioned below:—

i. Objects are overestimated—

When kneeling or lying.

When both background and object are of a similar colour.

On broken ground.

When looking over a valley or undulating ground in dull or foggy weather.

ii. Objects are underestimated—

When the sun is behind the observer.

In bright light or clear atmosphere.

When both background and object are of different colours.

When the intervening ground is level or covered with snow.

When looking upwards or downwards.

When the object is large.

3. The best means of obtaining the range is by observation of fire. Especially is this the case with automatic weapons.

4. Recruits and trained soldiers will be taught to judge up to 600 yards.

5. *Selected men* will be taught to judge up to 1,400 yards.

The training of leaders in judging distance is not confined to effective ranges, as the power of estimating distances correctly has considerable technical value apart from the application of fire power.

6. *Practice*.—Without constant practice under all conditions, both in peace and war, serious errors will be made in action.

INSTRUCTOR'S NOTES

The following is the sequence and the various methods of judging distance which should be taught.

SEQUENCE OF INSTRUCTION

7. *Unit of measure*.—Some familiar distance is used as a unit; 100 yards is a convenient unit; the section place themselves independently at what they think is 100 yards from an object; the distance between the farthest and nearest man of the section is paced; 100 yards is measured accurately from the object; the section is shown the correct unit. This method can only be used when the whole of the ground to be measured is visible; examples are shown to which this method cannot be, or can only be partly, applied. The section practises on figures put out at varying distances up to 400 yards.

8. *Appearance*.—The appearance of men in different positions, and of objects of known size, is studied and noted, at various distances and under all conditions of light, background, &c.

i. The following points should be noted:—

- (a) The apparent height of the object.
- (b) Appearance of the heads and shoulders of men.
- (c) Distinctness of outline.
- (d) Distinctness of the face, hands, rifle and head-dress.
- (e) Movements when loading and firing.

Appearance varies with the eyesight of individuals; a classification range is suitable for the early lessons.

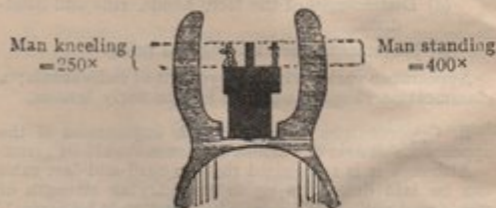
ii. Opportunities for revising the impressions of the appearance of men at various distances should be given.

Although it is recognized that no hard-and-fast rules can be laid down, owing to the varying strength of men's eyesight, rapid progress has been made by normal-sighted men when acting upon the following rules:—

- (a) At 200 yards. All parts of the body are distinctly seen.
- (b) At 300 yards. The outline of the face is slightly confused. The buttons resemble a stripe.
- (c) At 400 yards. Outline of body remains normal; but the face is not seen except under favourable circumstances.
- (d) At 500 yards. The body begins to taper slightly from the shoulders. Movements of the limbs are discernible.
- (e) At 600 yards. The head appears a mere dot, details are no longer distinguishable; tapering of the body very noticeable.

- (f) It is useful to know that when the rifle is held in the aiming position the *blade* of the *foresight* covers a man standing at 400 yards and a man kneeling at 250 yards (Fig. 7).

FIG. 7.



9. *Bracketing*.—Decide on the longest distance the object can be; decide on the shortest distance the object can be; take the mean.

10. *Halving*.—Judge the distance to a point considered to be half way and double this estimate.

11. *Key ranges*.—Judging by the aid of some known distance or with the assistance of range cards or maps.

12. *The mean (or average)*.—Add together the distances estimated by the various men judging; divide the result by the number judging. Ignore obviously incorrect estimates.

NOTE.—As progress is made the time allowed for judging distances should be limited, but guessing must

never be allowed. Reasons for estimates and the method used will always be given.

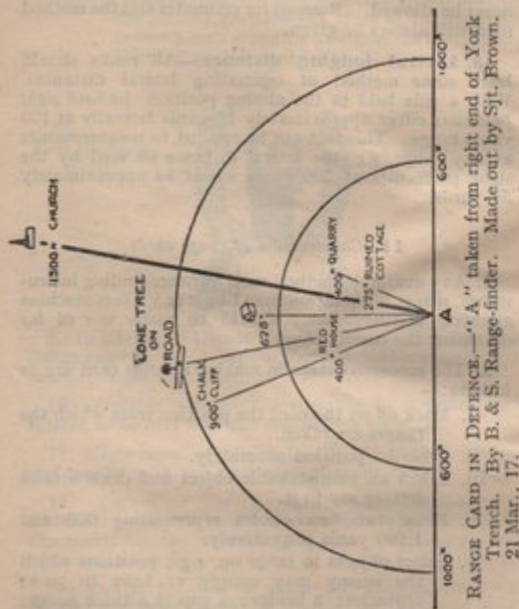
13. *Lateral judging distance*.—All ranks should learn some method of estimating lateral distances. With a rifle held in the aiming position the *back sight protectors* cover approximately 10 yards laterally at 100 yards range. This fact can be applied to measurements at any range, e.g. the lateral distance covered by the sight protectors at 500 yards would be approximately 50 yards.

11. Construction of range cards

1. Any available method such as range-finding instruments, maps, information from Lewis or Vickers machine gunners, artillery, &c., should be made use of for obtaining the correct range.

2. The successive steps in making a range card are as follows:—

- i. Mark off on the card the position from which the ranges are taken.
- ii. Describe position accurately.
- iii. Select an unmistakable object and draw a *thick* setting ray to it.
- iv. Draw two semi-circles representing 600 and 1,000 yards respectively.
- v. Select objects to range on, e.g., positions which the enemy may occupy or have to pass; obstacles; a bridge; a gap in a thick hedge; barbed-wire fences.



NOTES.—I. Avoid too many rays, which are apt to become confusing.

2. When possible make one ray do for more than one object.

4. *Example.*—Fig. 8 shows an example of a range card made for use in defence. The ranges in this case are supposed to be taken from the point A. The direction line from A to the church is drawn thicker than the other lines to facilitate "Setting" the range card in the same manner in which a map is set. When the card is set for the point from which the ranges are taken—which is noted on the card by pointing the thick direction line on the church—the other direction lines will indicate the direction and the ranges of the other points marked on the card.

The point from which the ranges are taken should always be described clearly on the card to facilitate setting it.

12. Application of fire

1. "Fire organization" is arranged by the higher command to secure co-operation in the fire of various arms and units.

2. "Fire direction" refers to instructions given by an officer or N.C.O. commanding more than one fire

unit to their fire unit commanders as to how the fire of units is to be applied.

3. "**Fire control**" orders are given by fire unit commanders to their men.

4. The normal infantry fire unit is the section. In battle, whether in attack or defence, fire will be controlled, subject to the platoon commander's orders, by the section commander as long as possible. (Sec. 7, 3 Infantry Training, Vol. II, 1926.)

5. In modern battle, conditions will sometimes exist where control by the section commander is difficult or impossible; situations will arise where no fire orders or only the briefest instructions may be possible, or it may be obvious to all that fire is required, *e.g.*, to beat down a counter-attack. Every man of the section should understand and should have been trained how to apply fire to the best advantage under such circumstances. A normal system of fire application is required.

6. The following simple system of fire application for the section will be instilled into all ranks:—

The fire of the men of the section may be applied in two ways—i. concentrated, or ii. distributed.

i. Concentrated fire by the men of a section implies that every man of the section applies his fire to the same point.

ii. When distributed fire (*i.e.*, against a linear target or an occupied area) is either called for obviously by the situation, or ordered by the section commander,

the men of the section will apply fire in the following manner:—

The limits between which fire is to be distributed having been named, or being obvious, each rifleman of the section will fire at the approximate point between these limits which corresponds to his actual position in the section. Each Lewis gun will fire in groups of short bursts at irregular intervals within these limits.

The width of the cone of fire must be considered by fire unit commanders when dealing with linear targets, as cases will arise in which the width of the cone is sufficient to cover the target area; in such circumstances concentrated fire will ensure better fire effect. For practical purposes the width of the cone of fire from a rifle section may be taken to be one per cent. of the actual range to the target.

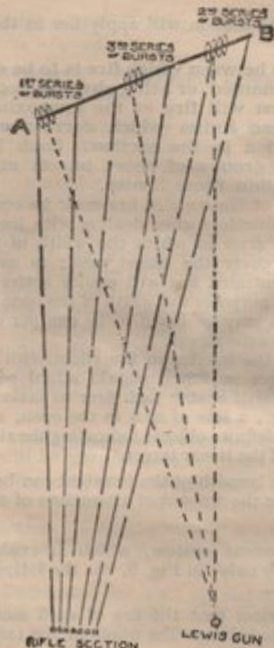
To obtain the maximum fire effect with distributed fire, the target indicated should afford some line or marks which will enable each firer to maintain correct elevation, *e.g.*, a line of men in the open, a hedgerow, wall, &c., or definite objects indicating the right and left extremities of the linear target.

N.B.—The breadth of the foresight can be taken as a good guide for the amount of alterations of aim between bursts of fire.

7. This normal system, which is explained (diagrammatically only) in Fig. 9, has the following special advantages:—

- i. It ensures that the fire of each section is distributed over the whole of the target.

FIG. 9.



A—B=Limits indicated by fire unit commander.

- ii. It allows any section commander to switch his fire against any other target that the situation may demand, whilst the whole of the original target remains under the fire of the other sections.
- iii. It allows of movement by one section taking place whilst fire is still applied to the whole target by another or other sections.

8. Although this system of fire application is the normal one, the section commander is in no way prohibited from seizing every opportunity that may be offered of directing his fire to the best advantage.

Note.—This system does not apply to distribution practices on the range.

13. Fire control

1. Methods by which fire is controlled.—

i. The section commander employs the weapons of his section by giving his instructions to the men in the form of what are termed "Fire control orders."

The fire control order is merely the commander's instructions, condensed into a concise form which will readily be understood by every man of his fire unit.

ii. The section commander, in his training as a private soldier, will have acquired some knowledge of the components of a "Fire control order," such as "The Military Vocabulary," visual training and judging distance (Secs. 24 and 26, Small Arms Training, Vol. I, 1924). As a private soldier he was taught to understand and act on the instructions contained in a fire order, but now, as

a section commander, he is required, firstly, to decide for himself the range, aiming mark, number of rounds, and rate of fire he wants to use, and secondly, to convey his decisions to the men of the section in the form of a concise fire order.

iii. For the training of section commanders the subject should be divided into:—

(a) The parts of the subject separately:—

- (1) Indication of target.
- (2) Judging distance; with the special object of increasing his powers of judging distances up to 1,400 yards.
- (3) The construction of range cards.
- (4) The principles governing the application of fire.
- (5) Fire control and fire control orders.

(b) Practice in giving fire orders, using both landscape targets and open country. This should start with simple straightforward fire orders, progressing by degrees to problems including imaginary battle situations.

(c) Testing in giving fire orders and observation of fire on the battle practice range.

2. Fire orders.—

i. Fire orders should be given:—

- (a) With decision.
- (b) Calmly.
- (c) Loudly.

(d) With pauses (to allow each part to be understood and acted on).

(e) Every word must be important.

(f) Avoid conversational tone and manner, and unnecessary or confusing detail.

ii. **Stop** means reload and wait for orders. The whistle may be used to draw attention.

iii. **Sighting** best changed by "Up (or Down)—100," &c.

iv. **Mutual understanding** between commanders and their men simplifies fire orders.

v. **Rapid fire** is used normally to gain the maximum effect in the minimum time; to obtain surprise effect on a vulnerable target; to cover the movement of a neighbouring section or sections across an exposed piece of ground (Sec. 7, 4, i). Hence the aim must be to achieve a practically simultaneous opening of fire. In giving an order for "rapid fire" a pause should be made after the word "rapid" to allow the men to come to the aim; then on the word "fire" each man will press his trigger when he has got a good aim. Rapid fire is aimed fire, and no attempt should be made to obtain a "volley."

3. Fire control orders may be of three different kinds:—

i. Normal.

ii. Brief.

iii. Anticipatory.

An example of each is given below.

(1907)

4. **Normal fire orders.**—A full and complete fire order, containing :—

- i. Designation of unit, *e.g.*, "No. 5 Section."
- ii. Range, *e.g.*, "five hundred."
- iii. Indication, *e.g.*, "quarter left—gateway—right—one width."
- iv. Number of rounds, *e.g.*, "three rounds."

Note.—On the number of rounds being named, firers will put forward their safety catches.

- v. Kind of fire, *e.g.*, "fire," or "rapid fire."

Note.—If rapid fire is ordered, firers will come into the aiming position on the word "Rapid".

5. **Reasons for the above method.**

- i. To make it clear to whom the order is addressed.
- ii. The range is given next so that once the men have adjusted their sights they can concentrate their whole attention on recognizing the target. Knowledge of the range also limits the area in which they need search for the target.

- iii. The indication of the target is given third and includes the direction and description of the target (*See* Sec. 9).

6. **Indication for concentrated fire.**—The point of aim must be given. This may be either part of the actual target or an auxiliary aiming point. When no special part of the target or auxiliary aiming point is mentioned, the centre of the lowest visible part is intended.

7. **Indication for distributed fire.**—The limits between which fire is to be distributed will be named. Each section will distribute within the limits indicated as already explained in Sec. 12, 6, ii.

8. The number of rounds (normally 3 to 5) is named in order to control the expenditure of ammunition and to ensure a lull in the firing, during which fresh orders can be given if necessary.

9. The kind of fire ordered should be that which the target and the situation at the moment demand.

10. **Brief fire orders** are used when the target is an obvious one, and when time does not admit of a full fire order being given, *e.g.*, "Sights down—Quarter left—Rapid Fire" or "Three Hundred—Half Right—Rapid Fire."

11. **Anticipatory fire orders** are used in both attack and defence, anticipating either the movements of our own troops or those of the enemy.

Examples:—

i. **Attack.**—"No. 5 Section — Four Hundred — Hedge in front of farm house. No. 6 Section is moving up that covered approach on our right. We must cover their advance while they cross that bit of open ground. Await my order to fire."

ii. **Defence.**—"No. 3 Section—Five Hundred—Quarter right—Small Wood. When the enemy comes out into the open, open Rapid Fire on my order."

From the above it will be seen that all preparations for opening fire have been made, but the actual opening of fire is withheld until it is required.

NOTES FOR INSTRUCTORS

12. Methods of practising fire orders.

i. Preliminary.—When practising section commanders in fire orders, those under instruction should sometimes be made to write down their orders so that they can afterwards be discussed by the instructor.

ii. When exercising section commanders and their fire units in fire orders, either landscape targets or open country can be used.

13. Key rifles may be used as follows:—

The instructor has two rifles in aiming rests and uses either one or both as required, *e.g.*, one when a concentrated fire order is required and *both* for a distributed fire order, one rifle being laid on each end of the target to show the limits of distribution.

The fire unit commander under instruction who is to give the fire order then looks along the key rifle or rifles and proceeds to give out his fire order.

The other section commanders under instruction (also using their rifles in aiming rests or some improvised rests) lay their rifles on what they recognize to be the target and then stand clear.

The instructor then looks along each rifle in turn and discusses—

- i. The fire order given; and
- ii. The fire effect that would have been obtained by the class.

14. A second method of practising fire orders, using rests, is as follows:—

Concealed men are called up individually and fire blank; meanwhile the class, except the commander, is turned away. The men again conceal themselves; the class is turned about. The commander gives his fire orders, the class adjust sights and lay rifles from rests on the point at which they would have fired. The men are again called up, aims and sights are checked. The fire orders and probable effect of fire are then discussed. As progress is made, two men may be called up at a time and orders given for distribution between the points which they mark. The section commanders under instruction will take turns at being the commander.

15. A more advanced exercise in fire orders can be carried out as follows:—

(In this exercise neither key rifles nor aiming rests will be used.)

The class will occupy a fire position under service conditions, and men equipped with dummy screens will represent an enemy platoon in various formations advancing to attack the section in position.

The movements of the men representing the enemy with dummy screens can be controlled by whistle and signal by the instructor carrying out the exercise, a previous rehearsal having been carried out to ensure the correct appearances and movements of the screen bearers.

NOTES.—1. The above are not tactical exercises, but are framed in order to practise section commanders

in fire orders. The suitability or otherwise of the orders should be discussed with reference to the nature of the targets, and the following method of discussion is suggested:—

When it is found that no fire effect would have been obtained, the fire order should be analysed and the poor result traced either to the class or the faultiness of the fire order, *e.g.*, was the range given approximately correct? If so, the class have no excuse for looking for the target at any other distance. Was the indication clear and short, or was there room for doubt? Was the volume and rate of fire ordered suitable to the target? Were aids used when there was no necessity for them?

2. In all the above exercises, absolute accuracy of aim on the part of the class must be insisted on.

16. Lewis-gun section "Fire control orders":—

- i. Unless otherwise stated, a fire control order given to a Lewis-gun section implies that the gun only will fire.
- ii. If the section commander wants to use his rifle fire at the same target as his gun, he will order "Gun and Rifles."
- iii. If the gun is temporarily out of action, or the section commander wishes to engage a target with rifle fire (whether the gun is in action against another target or not) the fire order will be preceded by the word "Riflemen."

iv. The rate of fire to be used with the gun will be controlled as follows:—

If the fire order is:—

Fire:—The firer will fire at the rate of 5 bursts a minute.

Rapid Fire:—The firer will fire in short bursts with just sufficient pauses between bursts to observe the fire and relay aim.

v. The duration of the fire can be controlled in two ways, either by—

- (a) Stating the number of bursts before the order "Fire" or "Rapid Fire"; or
- (b) Not mentioning any definite number of bursts, but merely giving the order "Fire" or "Rapid" followed by the command "Stop."

CHAPTER V

USE OF GROUND AND FORMATIONS

14. *Ground*

1. Use of ground.—Besides being able to control efficiently the weapons in his section, a section commander must be skilled in the use of *ground*:—

- As fire positions.
- To assist movement.

This means that he must understand the value of the different features of ground, from the point of view of their suitability for:—

- i. Fire effect.
- ii. Observation.
- iii. Concealment from view.
- iv. Protection from hostile fire.

He must also appreciate those features which are serious obstacles to movement.

2. Use of ground as fire positions.—A good fire position should:—

- i. Allow the weapons of the section to be used freely.
- ii. Allow the section commander and his men to see their target without undue exposure.
- iii. Provide good observation.
- iv. Give cover from view and fire.
- v. Be easy to advance from.

In addition, in the defence, the position should give a field of fire of at least 100 yards. It is, however, unlikely that a fire position fulfilling all the above conditions will often be found.

3. Use of ground to assist movement.—In the attack it may be possible in wooded, close or broken country for the attacker wholly or partially to conceal his approach and so outflank or surprise the enemy.

In the defence in mobile warfare, the concealment afforded by natural cover is more valuable than hastily constructed defences, which are visible from the air and can easily be destroyed by shell fire.

“Some of the chief types of cover which may be met with are:—

- i. *Undulating ground.*—This form of cover is the least obvious, and a high standard of training is required in order that its possibilities may be fully appreciated. When skilfully used it may secure immunity from fire as it affords no ranging mark for the enemy.
- ii. *Shell-holes.*—These are particularly useful as positions from which to fire H.E. and smoke grenades and for machine guns.
- iii. *Hedges and bushes.*—These afford cover from view but not from fire. In open country they may afford a good ranging mark to the enemy and are therefore dangerous.
- iv. *Trees.*—If sufficiently thick, trees give protection against bullets. Isolated trees afford good ranging points for the enemy.

v. *Sunken roads, or the dry beds of streams and ditches.*—These afford valuable natural trenches which can be improved by burrowing into the bank nearest the enemy. On the other hand, the hard surface of a road increases the effect of shells bursting on it; roads are easy to range on. The danger of their being enfiladed must be particularly guarded against.

vi. *Walls.*—They afford cover from view and fire, but are apt to splinter. They are easy to range on.

vii. *Standing crops.*—These afford good cover from view and are useful for concealing objects." (Sec. 8, 6 Infantry Training, Vol. II, 1923.).

4. Before movement a section commander must decide, subject to the platoon commander's orders:—

- i. The place to make for.
- ii. The route by which to move to that place.
- iii. The speed at which he will move.

He must then explain the above decisions clearly to his section.

To enable section commanders to arrive at these decisions logically and rapidly, constant practice on varying natures of ground is essential, in order that they may acquire the habit of carrying out such reconnaissances in methodical sequence.

Training to develop skill in the above can best be carried out, in the early stages, by means of exercises similar to those given in Sec. 32, Small Arms Training, Vol. I., 1924, which are reproduced at the end of this chapter.

5. *Maintenance of direction.*—Closely bound up with skill in the use of ground is the necessity for practice in keeping direction. To advance in a direct line across open country in broad daylight to some conspicuous feature is not difficult, but making a detour to obtain concealment will often throw leaders off the correct line of advance.

The difficulties of keeping direction, even to those who have an instinctive sense of direction, are likely to arise in close or undulating country, at night, or in a fog or mist. For this reason a section commander must at all times, as soon as he is given his objective, immediately consider the means he will employ to keep correct direction. He is unlikely to have either a compass or map, and the objective may not be visible from the starting point; he may have been shown it on the platoon commander's map and have been given the approximate line to follow on the foreground.

The simplest ways of keeping direction are:—

- i. By using a series of obvious landmarks, each visible from the previous one.
- ii. By keeping two distant prominent objects in line.
- iii. By the sun or stars.
- iv. By map or compass, if available.

All the above require practice.

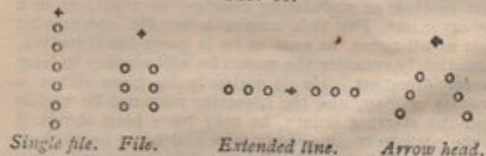
6. *Entrenching.*—It may often be possible, when time and circumstances permit, to increase the protection afforded by the ground by means of artificial cover. The section commander therefore requires training in this subject and in the laying out of tasks

and organizing the work of his section as shewn in Secs. 38-76, Infantry Training, Vol. II, 1926.

15. Formations

1. The question of the correct use of ground leads logically to the consideration of the most suitable formations in which a section can move. These are (Fig. 10):—

FIG. 10.



A line may be extended to possibly 4 or more paces between men.

2. The section commander must be trained to know:—

- i. Which formation to adopt under varying circumstances.
- ii. How to get his section rapidly into the formation selected, either by order or signal.

As regards the first, the formation to be selected depends upon:—

- i. The degree of control necessary.
- ii. Fire production.
- iii. Vulnerability.
- iv. Ground.

File or single file is the best where *control* is the most important consideration. It is also the best for taking advantage of the covered approaches afforded by the ground.

Extended line or arrow-head is the best from the point of view of *fire production*.

There is little to choose between any of the formations as regards *vulnerability* when crossing an area swept by *indirect* artillery or machine-gun fire, and, in such a case, the retention of *control* will probably be the most important consideration.

When under *aimed* small-arm fire, we should expect, and experience has shown, that the extended line is the least vulnerable (except in the case of *enfilade* fire), and that file is probably the most vulnerable.

Generally then, control and the use of ground are favoured by the narrow frontage formations (file and single file); while fire production and protection are favoured by the extended formations (arrow head or extended line).

The section commander must, however, avoid deploying to an extended line until forced to do so. Once his section is extended his power to control it, and to use ground to the best advantage is, to a certain extent, sacrificed. The section commander should, therefore, seize the first opportunity of getting his section in hand once more.

Once the section commander has understood the above, practice in various situations is necessary, until he instinctively forms his decision without any delay.

3. The above considerations are applicable to both rifle and Lewis-gun sections, but the formations adopted

when the sections stop to open fire are different. With a rifle section the firing formation is normally the movement formation halted, each man adjusting his position to the ground, his main object being the free use of his rifle.

When a Lewis-gun section occupies a fire position, the men must be so disposed as to make the best use of the accidents of the ground, for the purpose of serving the gun, according to whether their individual duties are in the nature of firing, feeding, supplying ammunition, observation or protection.

4. The men of a Lewis-gun section carry 50 rounds of rifle ammunition (Sec. 5, 2) and fire as a rifle section only in emergency.

16. Field signals

1. The section commander will normally get his section into the formation required by word of command. The actual words used do not matter, so long as they are quite simple and can be readily understood by the men of the section.

2. The section commander must know the field signals. These are reproduced from Secs. 122 and 123, Infantry Training, Vol. I, 1926:—

Signals with the arm

i. **Extend.**—The arm extended to full extent over the head and waved slowly from side to side, the hand to be open and to come down as low as the hips on both sides of the body.

If it is required to extend to a flank the section commander will point to the required flank after finishing the signal.

ii. **Deploy.**—Arm moved rapidly several times horizontally across the body, in line with the shoulder.

iii. **Deploy to the Right (or Left).**—Arm moved as above and ending up with the arm pointing to the required flank.

iv. **Deploy from the Centre.**—Arm moved as above and ending up with the arm being raised vertically and lowered three times to the front as if cutting.

v. **Advance.**—The arm swung from rear to front below the shoulder.

vi. **Halt.**—The arm raised at full extent above head.

vii. **Retire.**—The arm circled above the head.

viii. **Change direction Right (or Left).**—The arm is first extended in line with the shoulder. A circular movement is then made, on completion of which the arm and body should point in the required direction.

(a) When troops are halted the above signal means *change position, right (or left)*.

(b) When troops are in column of fours, or in file or in single file, the above signal means *right (or left) wheel*.

ix. **Right (or Left) incline or Turn.**—The body or horse turned in the required direction and arm extended in line with the shoulder, and pointing in the required direction.

x. **Close.**—The hand placed on top of the head, elbow to be square to the right or left according to which hand is used.

(a) The above signal denotes *Close* (on the centre). If it is required to close on a flank, the leader will point to the required flank before dropping his hand.

(b) If, when on the march, it is required to halt as well as close, the leader will perform the halt signal before dropping his hand.

xi. **Quick time.**—The hand raised in line with the shoulder, the elbow bent and close to the side.

xii. **Double.**—The clenched hand moved up and down between the thigh and shoulder.

xiii. **Follow me.**—The arm swung from rear to front above the shoulder.

xiv. **Lie down.**—Two or three slight movements of the open hand towards the ground.

xv. **As you were.**—Arm extended downwards, waved across the body, parallel to the ground.

Signals with the rifle

xvi. **Enemy in sight in small numbers.**—Rifle held above the head, at full extent of the arm and parallel with the ground, muzzle pointing to the front.

xvii. **Enemy in sight in large numbers.**—As for "Enemy in sight in small numbers," but the rifle raised and lowered frequently.

xviii. **No enemy in sight.**—Rifle held up at full extent of arm, point or muzzle uppermost.

3. These signals are valuable in the case of scouts, &c., sent on ahead from their sections. Care should be taken that the signals cannot be seen by the enemy.

17. Exercises in the use of ground and formations (Reproduced from Sec. 32, Small Arms Training, Vol. 1, 1924.)

1. **General Note** regarding all Exercises.—Instructors should guard against these exercises developing into a game of "hide and seek." Boldness should be encouraged. Crawling should be discouraged by fixing a time limit, and should only be allowed for movement over the last two or three yards into a fire position, and for concealing movement over stretches of a few yards where exposure would otherwise occur.

2. Exercises to teach the use of ground.— Individual stalk

Preliminary.—A definite point is selected from 200 to 600 yards away, where a sniper or a patrol is supposed to be located, the object being to approach sufficiently close to shoot with the certainty of killing.

Procedure.—The class is given a few minutes to study the ground, to decide upon the position from which to shoot, and to consider the best means of getting there. Individuals may then be questioned, and one or more detailed to carry out the practice within a time limit. The instructor and remainder of the class proceed to the objective to view the action of the selected men, and will note good and bad points.

Discussion.—On the conclusion, discussion should take place on the following lines:—

- i. The reasons for the line of approach selected.
- ii. The fire position chosen.
- iii. If risks had to be taken, were they taken early, while there was less chance of being seen and hit, or were they taken late?
- iv. Was full advantage taken of dead ground and cover, both from fire and view?
- v. Were skyline, high ground or unsuitable backgrounds avoided?

3. Exercises to teach the combined use of ground and formations.—

Section stalk

Preliminary.—As in para. 2, above, a definite objective is pointed out from 200 to 800 yards away.

Procedure.—A few minutes are allowed in which the section commander considers the problem, and decides upon the following points:—

- i. The ultimate fire position.
- ii. The most concealed line of approach.
- iii. The formations to adopt at various stages of the advance.

Discussion.—The following points will be brought out:—

- i. Those mentioned for discussion in para. 2, above,
- ii. Leadership, handling and command of the section.
- iii. Suitability of the formations adopted.
- iv. The action of individuals.

SPECIAL NOTE.

It will be found useful for two sections of a platoon to carry out this exercise together, one attacking, the other defending.

CHAPTER VI

ORDERS AND INTERCOMMUNICATION

18. Orders

1. It is obvious that the section commander will always give his orders to his men verbally. It is, however, essential that such verbal orders should be given in the correct sequence.

Unless this sequence is kept, important points are very likely to be missed.

2. So far as section commanders are concerned, the proper sequence of orders is as follows:—

Information—

About the enemy, including his dispositions, and artificial, or natural defences.

About our own troops, i.e., the task of the platoon; the sections on the flank or in reserve.

Intention—

What the section commander intends to achieve.

Plan—

His orders for carrying out this intention, including:

Formations.

Methods of keeping direction.

Intermediate stopping places, if any.

The support to be expected from other arms, if any.

Time to start.

Administrative arrangements—

Medical arrangements.

Rations.

All of the above will not be necessary in every case.

3. The importance of giving verbal orders in a calm, determined manner must be impressed upon all section commanders.

19. Intercommunication

1. The following are extracts from Sec. 10, Infantry Training, Vol. II, 1926:—

"All commanders are responsible for keeping their respective superiors, as well as neighbouring and subordinate commanders, regularly informed of the progress of events, and of important changes in the situation as they occur.

"It is only by the most careful arrangements for the passing of information, both to higher authority and to the flanks, that the co-ordination of effort necessary for victory can be achieved.

"To ensure that no possible source of information is overlooked, all ranks should notice what takes place within their view and hearing, and report anything of importance accurately and at once to their superior.

"In the heat of battle the tendency of subordinate commanders is to forget the necessity for constantly sending in reports to higher commanders and to flank units. The value of reports increases as the action progresses and the importance of rendering them

frequently must be the constant care of every commander."

2. The small number of men in a section, and the position of forward sections in close contact with the enemy, will often make it impossible for section commanders to despatch orderlies with messages. But they must be taught that it is the duty of those in actual touch with the enemy to send in reports when possible.

3. The training of the section commander in this subject will comprise instruction in:—

- i. The means of keeping in touch with his platoon commander.
- ii. The type of information likely to be of value to his platoon commander.
- iii. The power of expressing information clearly and concisely in a message.
- iv. The correct way to write a message.

4. A section commander must be exercised in sending back correct and necessary information in the proper form.

Situations should be given him which require reports to his platoon commander, and the message he produces should be discussed and criticized.

5. *Verbal messages.*—Section commanders will be trained to keep verbal messages as short as possible and to make the bearer repeat the message before he is dispatched, to ensure that he has understood it correctly.

CHAPTER VII

THE SECTION IN THE ATTACK

(Chapter II, Infantry Training, Vol. II, 1926.)

20. *General considerations*

1. Success in the attack depends upon fire power which makes possible movement in face of opposition.

2. The platoon is the smallest unit which can be divided into inter-dependent bodies each capable of fire and movement (Sec. 15, Infantry Training, Vol. II, 1926).

3. These inter-dependent bodies are the sections. The section commander carries out the orders of his platoon commander. In doing so he must apply his knowledge of the weapons at his disposal and make the best use of ground in order to bring about the success of the platoon commander's plan.

4. Whether the fire power in support of his attack is provided principally by machine guns, artillery and tanks, or whether he has to rely upon his own resources and those of the remainder of the platoon, it will always be the aim of the section commander to maintain a steady rate of forward movement in accordance with the orders he has received. It will be his firm determination

to lead his men into the hostile position and to kill or capture the enemy.

5. The main distinction between the rifle section and the Lewis-gun section is that the former seeks the opportunity to use the bayonet, while the latter acts principally by fire.

6. Subject to any orders given by his platoon commander, the section commander will:—

- i. Choose the line of advance.
- ii. Maintain correct direction.
- iii. Adopt the formation best suited to the situation (taking into consideration control, fire production, enemy's fire and ground).
- iv. Select fire positions, remembering that infantry should not stop to open fire with its own weapons unless forced to do so to establish the fire superiority necessary to maintain its mobility.
- v. Advance from fire position to fire position, at all times on the watch to give assistance by fire to neighbouring sections or to receive such assistance from them.
- vi. Control and observe the fire of the section.
- vii. Maintain fire discipline, including prevention of waste of ammunition.
- viii. See that ammunition from casualties is collected.
- ix. Keep in touch with his platoon commander.
- * x. Lead his section in the assault.
- xi. Maintain touch with the enemy.

21. *The phases of the attack**

1. The following paragraphs give an indication of the various responsibilities which fall to the section commander in the different phases of an attack in which the platoon is relying on the use of its own weapons to get forward.

2. FIRST PHASE—Preliminary.

- i. The platoon commander explains to the section commanders the objective, his plan of attack, and gives them orders and any necessary information.
- ii. All section commanders:—
 - (a) Explain the direction of advance to their sections and indicate it by any available landmarks.
 - (b) Explain the action of neighbouring sections and the position of platoon headquarters.
 - (c) Explain any necessary further instructions given by the platoon commander.

3. SECOND PHASE—The Approach.

- i. The order to deploy having been given, section commanders move their sections to their position in deployment.

* For the purposes of the following examples, it may be assumed that:—

- i. The enemy consists of covering troops who have made only hasty dispositions.
- ii. Other platoons are on either flank.
- iii. The platoon frontage is about 200 yards.

- ii. Section commanders will, if necessary, send out scouts (Sec. 29).
- iii. The advance will then commence in accordance with the orders issued or by signal.
- iv. The forward sections maintain a steady rate of forward movement to successive positions of observation, making use of covered approaches, the section commanders leading their sections, and normally acting as ground scouts themselves when this is necessary.
- v. During this phase of the attack the section commanders will be concerned principally in changing the formation of their sections to suit the ground or to avoid loss if they are under artillery or long range small-arm fire, and in keeping direction and position in the platoon. When it is necessary to cross open spaces exposed to fire it must be done rapidly and without bunching.

4. THIRD PHASE—The Fire Fight.

- i. When an enemy is located either by observation or drawing fire, the platoon commander will control the forward movement of his platoon.
- ii. Some sections may be employed to provide covering fire while others continue to advance.
- iii. Advancing sections may be compelled to halt and open fire. The section commander in making this decision must remember that his main object is to close with the enemy. He must also remember that, as a principle, fire should

never be opened except when it is essential to enable the section to get forward, or when a particularly favourable target presents itself, or to assist a neighbouring section which is in difficulties.

- iv. When, owing to fire, the section can no longer advance, the best thing a commander can do is to occupy a fire position and engage the enemy with every weapon at his disposal. So soon as the enemy's fire slackens the section should continue the advance, so long as such advance does not result in leaving a good fire position for the sake of a short advance to another which is no better. This applies particularly to Lewis-gun sections.
- v. Throughout the advance, the section commander must be careful not to interfere with the platoon commander's plan by stopping his covering fire, and so interfering with the movement of other sections, which may be attempting, by manoeuvre, to outflank or to get into a position from which they can assault the enemy.
- vi. The fire fight will continue on the above lines until sections are in a position to assault.

5. FOURTH PHASE—The Assault.

- i. The assault may be initiated by the platoon commanders, or by any section commander who has manoeuvred his section to a position from which it is possible.

- ii. The covering fire of other troops will be intensified to cover the assault.
- iii. In the assault, pace and determination are essential.
- iv. The importance of control cannot be over emphasized. Section commanders will regulate the pace and lead their sections when closing with the enemy, and will be responsible for deciding the exact moment at which the order to rush in will be given.
- v. Smoke grenades may be fired either to blind the post about to be rushed, or to screen the assaulting sections from the view of other enemy posts from which fire may be directed upon the assaulting troops.
- vi. It is the personal influence of the platoon and section commander which will ensure control and success in the assault.

V. FIFTH PHASE—Reorganization.

- i. Immediately the assault has been successfully delivered, section commanders will, subject to the orders of the platoon commander, get their sections under control and prepare to resume the advance or to deal with a counter-attack.
- ii. Those sections which have been covering the assault with fire will rejoin the platoon as soon as they see that the assault has succeeded.

22. Exercises to teach the combination of fire and movement

1. Exercises on the following lines will be found of use:—

- i. Two sections of the platoon will carry out an attack on a limited frontage under battle conditions, opposed by the other two sections of the platoon, as defenders of the hostile position.

- ii. *Preliminary.*—The objective and limits of the ground which may be used will be pointed out

- iii. *Procedure.*—Section commanders will then consider:—

- (a) The amount of cover which the ground affords.
- (b) The possibility of advancing without fire, and the portions of the ground where the fire of one section will be needed to cover the movement of the other.
- (c) Suitable fire positions and the approach to them.
- (d) Formations, and the method and pace of the advance.
- (e) Fire orders to deal with the various situations.
- (f) The exercise will be concluded by a discussion of the above points.

2. Care must be taken that exercises to teach the combination of fire and movement are not carried out as a drill. When a platoon is attacking, advances must

not be made by alternate section rushes, without consideration of the ground or the enemy's fire. Every advance should, if possible, be from fire position to fire position. Training on these lines in peace can only result in heavy and unnecessary casualties in war.

3. The ground and the enemy's fire will decide the distance of every advance and will prevent any fixed rule such as—both Lewis guns acting together on the same flank; the advance of the rifle sections ahead of the Lewis-gun sections; the advance of sections in turn. There must be the closest co-operation with units on both flanks.

CHAPTER VIII

THE SECTION IN THE DEFENCE

(Chapter III, Infantry Training, Vol. II, 1926.)

23. *General considerations*

1. Success in defence depends, primarily, upon fire power, which stops the enemy's advance and, ultimately, on a combination of fire and movement in the form of counter-attack.

2. Normally, platoon commanders will be responsible for organizing the duties and the work to be carried out by their sections, and a definite programme will be drawn up for each section post. Though control by the platoon commander will always be aimed at, when siting section posts, cases will occur in which, owing to the ground, it may be necessary to dispose one or more of the sections at some distance from the remainder.

For this reason a section commander must be capable of taking command of a post at some distance from platoon headquarters, and of preparing it for defence, if necessary.

3. It is the action of the section commander in such a situation which is discussed here.

4. It may always be assumed that the company commander will have made the necessary arrange-

ments for adequate protection of the position by patrols, or observation posts on commanding ground, during the occupation and organization of the locality by his company. (Sec. 22, Infantry Training, Vol. II, 1926.)

24. *Occupation of a defended post*

1. The following is the procedure which will be adopted in the occupation of a defended post by a section, when the organization of the position is not carried out under the direct orders of the platoon commander.

2. The section commander will:—

- i. Assemble the section in a position, concealed if possible, in the rear of the proposed post.
- ii. If necessary, post a sentry to:—
 - (a) watch for signals from covering party,
 - (b) look out for hostile aircraft.
 (Normally, only one sentry for each platoon will be necessary while a covering party is out.)
- iii. Reconnoitre the position of his post, with the next senior in the section, and choose the exact site for it (the eye should be close to the ground when siting the post).

This will depend upon the ground which it is necessary to sweep by fire.

A section post should be capable of all-round defence, and should be so constructed that the section can man it extended at intervals of at least six feet. If the whole section is bunched together, there is danger of the post being totally destroyed by one shell.

- iv. Decide how he will construct a fire position for each man, either by making use of existing accidents of the ground or, if such are unsuitable, by digging slits and holes for cover; the primary consideration is, that each man shall be able to use his weapon, and that each shall have a minimum field of fire of 100 to 150 yards.
- v. March his section up to the post and allot tasks.
- vi. Choose the "Alarm post," which will normally be the section post.
- vii. Decide whether equipment may be taken off while digging is in progress.
- viii. Give orders as to digging and the concealment of excavated earth.
- ix. Choose reference points and make a range card, and, having done so, order "Stand to" on the alarm post and explain them.
- x. See that he has plenty of ammunition.
- xi. Arrange concealed means of signalling to platoon headquarters and neighbouring sections.
- xii. Give necessary orders about wire and other obstacles.

3. A section commander's orders to his men will include the following points:—

- i. The general situation and the position of other sections and of the platoon headquarters.
- ii. The probable lines of the enemy's approach and any areas which are to be specially watched,

and also the position of the posts on the flanks. Prominent land-marks should be given names.

(Section commanders will frequently test their men's knowledge of these points by questions.)

- iii. No man to leave his post without permission of the section commander.
 - iv. Arrangements for giving the gas alarm. A whistle must not be used for this purpose. Respirators will always be worn in the "alert" position.
 - v. Lewis guns to be in position, loaded, by night; by day, they may be concealed, but must be ready for instant action.
 - vi. No lighting of matches or smoking, at night, in view of the enemy. This may draw fire.
 - vii. Hours of rifle and oil bottle inspection, morning and evening. Not more than one man to be engaged in cleaning his rifle at the same time.
 - viii. Arrangements for care of the feet.
 - ix. Sanitation. Whenever possible tins or buckets will be arranged for latrine purposes and for rubbish. The contents must be buried away from the post.
4. In addition, a section commander will make the following special arrangements for night:—
- i. Make arrangements for night firing for (a) Lewis guns, (b) rifles, care being taken to prevent firing into a neighbouring post.

- ii. Study the ground with his men, in case anyone is required to go out in front during the night.
- iii. Order "Stand to" an hour before dark.
- iv. Post double sentries.
- v. Work out a sentry roster.
- vi. Make a cut-and-dried plan, so that every man knows exactly what to do in case of alarm. Rehearse this before dusk.
- vii. Point out to the men any objects which would be silhouetted against the sky at night and which could serve as a guide to neighbouring posts and platoon headquarters.
- viii. Fix bayonets.
- ix. Give information about any patrols which may be going out during the night.

25. Sentries

1. The security of a section post depends partly on the steps taken to conceal it and partly on the manner in which the sentry duties are performed. The posting of sentries must be done carefully by day and without noise at night.

A section commander must select sentry posts for night so that the whole section can be warned silently in case of need.

2. Sentries will receive the following orders:—

- i. If anyone approaches, the sentry will immediately warn the post.
- ii. As soon as the person or party is within hearing, the sentry will call out "Halt" and get ready

to fire. If the order to halt is obeyed, the section commander will order the person or commander of the party to advance and give an account of himself. If the order to halt is disobeyed, fire will be opened without hesitation.

3. All sentries must know:—

- i. The direction of the enemy.
- ii. The extent of the ground they have to watch.
- iii. The position of the section posts on their right and left.
- iv. The names of any landmarks on their front.
- v. The procedure if they see anyone approaching the post.
- vi. Particulars of any friendly patrols due to return through their post.
- vii. The pass word.

4. Sentries will always be posted and relieved by the section commander or the next senior.

26. Action to repel an enemy attack

1. In the event of *attack*, the duties of the section commander are:—

- i. To control and direct the fire of his post.
- ii. To maintain fire discipline and so prevent waste of ammunition.
- iii. To assist neighbouring posts with cross fire whenever he sees an opportunity to do so.
- iv. To maintain his position to the last.

2. The various phases of the attack subsequent to the occupation of the section post, as detailed above, may be described as:—

- i. *Approach of the enemy.*—The first indication of the enemy's approach may be received from the air, from mounted troops or from troops on the flank, but the sentries of the infantry posts must keep a sharp look out for the advanced scouts of the enemy, who will probably be taking full advantage of the ground.

As soon as he gets an indication of the enemy's approach, the section commander will order his section to "Stand to," at the same time avoiding any movement which might disclose the position of the post.

- ii. *The fire fight.*—The enemy will probably advance in small groups, working their way forward and making every use of the ground and fire.

Section commanders must pick out the most suitable targets, their first consideration being to engage the enemy in the area which they have been specially ordered to sweep with fire. They must avoid being attracted by other targets, even if more favourable, as they will thereby neglect the area which is their special responsibility.

Throughout the fire fight, no matter how threatening the situation, there must be no relaxation of calm, clear fire orders. Without such orders, steady and accurate fire is impossible.

If the enemy's shell fire is destroying the post, or if during the attack the enemy succeed in manoeuvring round the post, the section commander will be well advised to quit the actual post and take up a position on its flank, by this means he may avoid the destruction of his section and may, in his turn, surprise the enemy.

- iii. *The enemy's assault.*—If the enemy is able to get close enough to assault, the section commanders of the posts assaulted must act with great determination and continue to fight the enemy with controlled fire, and finally use the bayonet, if opportunity offers.

The commanders of posts not threatened with direct assault must continue to hold their posts, no matter what has happened to neighbouring posts. They must engage the enemy with fire, so as to help neighbouring posts to defeat the threatened assault, or to assist in creating a favourable opportunity for counter-attack.

27. Counter-attacks

1. Counter-attacks will seldom be carried out by a unit smaller than a platoon. They may be made in accordance with a previously rehearsed plan, or may be launched on only very brief instructions from the commander.

It will be very unusual, but situations may arise in which it is necessary for a section to carry out an immediate counter-attack on the initiative of its

commander, and all section commanders must therefore be prepared for such an eventuality.

2. Section commanders taking part in a counter-attack must lead their sections with great dash, and fight the enemy before he gets time to recover from the disorganization into which he will have been thrown during the attack.

3. The section commanders of posts holding out must keep a good look-out to see how they can best assist a counter-attack by their fire.

CHAPTER IX

PROTECTION

(Chapter IV, Infantry Training, Vol. II, 1926.)

28. General

In addition to his responsibility, when the platoon is deployed (and if the formation of the section does not in itself provide protection) for the protection of his section by means of scouts, the section commander is concerned with other forms of protection.

29. Scouts

1. Once the platoon to which he belongs is deployed, the section commander is responsible for the security of his section and must arrange:—

- i. To prevent the section being surprised.
- ii. To locate and report the position of the enemy.
- iii. To obtain information as to obstacles to movement on the line of advance.

When moving in arrowhead, or extended line, the section formation will generally in itself provide this security. But when the section is one of the forward sections of a platoon and when its formation does not provide the necessary security, the employment of scouts may be necessary.

2. Before the enemy has been located, scouts may be necessary to move ahead or to a flank of their section to protect it from surprise. **The distance ahead that they must move depends on the nature of the enemy and of the country and on the individuality of the men.** Later on, when contact has been gained, it may be necessary for the section scouts to work by bounds, but once the enemy's position has been definitely established, it will usually be advisable to withdraw the scouts altogether, in order that they may not mask the fire of their sections.

That is to say, **it is not always necessary to employ scouts, and it must be remembered that to do so reduces the fire power to the section by the number of men sent out.**

3. When employed, scouts should work in pairs, to inspire confidence and be able to consult one another, or to allow one to remain in observation, whilst the other signals or goes back with a report to the section.

They should be given definite objectives to reach.

When sent forward only to reconnoitre, they should never use their rifles except in self-defence.

4. The duty given in para. 1, iii, above, will be performed by "*ground scouts*," who must move sufficiently far ahead of the section to prevent it being held up by any obstacle. Such ground scouts will be withdrawn so soon as the reason for their employment no longer exists.

The section commander himself will often act as "*ground scout*" for his section.

30. Patrols

1. The section commander must be trained to lead a reconnoitring patrol.

2. Instructions for the training of patrols are contained in Sec. 150, Infantry Training, Vol. I, 1926, and for their employment, in Sec. 22, 9-12, Infantry Training, Vol. II, 1926, which contain also full details as to the duties of the patrol leader.

31. Outposts

1. Outposts are a form of defence (*see* Chapter VIII). There are generally wider intervals between the sections than in other forms of defence, and, as outposts are usually taken up for a short time only, elaborate defences cannot be constructed.

2. Section commanders must receive sufficient instruction in the manner in which an outpost position is organized for them to understand the meaning of the terms, Piquets, Supports and Reserves.

3. When the section forms part of an outpost company, the duties of the section commander will often be those of a commander of a sentry group.

4. Section commanders should receive instruction on the following lines. (Sec. 35, Infantry Training, Vol. II, 1926.)

- i. By day, one sentry to each group is sufficient.
- ii. By night, in fog or mist, or if the men are very tired, or special precautions are necessary, double sentries should be posted.

iii. Sentries must be placed so as to obtain a clear view of the ground to their front, whilst being concealed themselves from the enemy.

iv. Sentries must avoid movement so as not to attract attention.

v. Sentries will not lie down except to fire.

vi. Sentries will not fix bayonets except at night, or in fog or mist.

vii. Sentries will immediately warn group commanders of the approach of any person or party. They will order such person or party to "Halt," when within hearing distance. If the order is obeyed the group commander will order the person or commander of the party to advance and give an account of himself. Any person not obeying the sentry, or attempting to make off after being ordered to halt, will be fired upon without hesitation.

viii. A sentry must know:—

- (a) The direction of the enemy.
- (b) The position of the sentries on his right and left.
- (c) The position of the piquet, of neighbouring piquets, and of any other outposts in the neighbourhood.
- (d) The extent of front and any special points he has to watch.
- (f) Whether any friendly patrols or scouts may be expected to return through his portion of the line, and the signal, or pass word, by which they may be recognized.

- (g) The names of any prominent features, villages, woods, &c., in view, and the places to which roads and railways lead.
- (h) How to deal with any person or party approaching his post.

5. Section commanders commanding sentry groups must be told exactly what to do in case the enemy attacks, whether they are to remain at their posts—in which case they must be protected by fire behind as well as from the front—or whether they are to retire on the piquet.

In the latter case they must be warned of the danger of arriving headlong on the piquet only just ahead of the enemy.

6. The commanders of sentry groups must also know what has to be done with persons found entering or leaving the outpost line.

Prisoners and deserters will be sent at once, under escort, to the authority appointed to interrogate them.

32. *Protection from the air*

Section commanders must receive instruction in taking cover from the air (Sec. 41, Infantry Training, Vol. II, 1926). They will also be taught the procedure for firing on aircraft (Sec. 40*, Infantry Training, Vol. II, 1926 and Secs. 116 to 123* Small Arms Training, Vol. I, 1924).

* At present in abeyance and are to be amended.

CHAPTER X

SIMPLE TACTICAL EXERCISES

N.B.—The examples given in this Chapter are intended to show the kind of problems which section commanders should be called upon to solve. They must not on any account be regarded as a set form to be followed on all occasions.

33. *General instructions*

Preparation

1. The instructor will decide, definitely, what lessons he is going to teach and must select the piece of ground which is most suitable to bring out these lessons.

2. He should prepare the scheme carefully on the ground and work out a sound tactical solution to each problem. The action of the enemy and of our own troops, as detailed in the scheme, must be tactically sound.

3. The problems set must be confined to those of the section, but the section is to be considered as part of the platoon and not as an isolated unit.

4. It is, of course, unnecessary to adhere to one section only during an exercise, but the scheme should be consecutive, i.e., should include the different phases of the same battle.

The position of the remaining sections of the platoon and that of the enemy may be shown by flags.

5. Each problem should be designed to teach one chief lesson.

6. Whenever possible each problem should entail the issue of verbal orders by the section commander, the correct sequence being always insisted on.

Method of Conducting

7. It is advisable to start the exercise by describing the situation and issuing orders to the section commanders, the instructor acting as though he were the platoon commander. He should explain the situation and give orders as he would in war.

8. The instructor should set the first problem and give a time limit for its solution. The time limit can be reduced as the section commanders become practised.

9. If the section commanders are working in syndicates, the spokesman or, if they are working individually, each section commander, after having had time to solve the problem, should give the solution, stating:—

- i. His decision.
- ii. His verbal orders for carrying it out.
- iii. His reasons for the decision.

10. Syndicates should consist of not more than four members and, if possible, those under instruction should work individually and not in syndicates.

11. Vague statements and solutions will never be allowed. The actual orders should be given. It is advisable to make the individual giving the solution state it as an order to the remainder of those under instruction. The recipients will then carry it out. By this means practice will be given in issuing orders and the definite result of the solution will be seen.





12. Remembering that there is nearly always more than one way of solving a problem, the instructor should sum up, stating:—

- i. The factors affecting the situation.
- ii. The alternatives open to the section commander.
- iii. His own solution of the problem.
- iv. The executive order.
- v. The lesson to be taught by the problem.

The lesson must be driven home.

34. *Example of a section in the attack*

1. **Narrative.**—Your company is lying under cover. Your platoon has been ordered, as part of the company commander's plan of advance, to occupy Hill X (see Plate I.) about 600 yards distant. From this hill the platoon is to be prepared to cover by fire the advance of another platoon on its right to Hill Y.

The intervening ground is generally exposed, but there are a few banks and depressions, and on the left front, about 200 yards away, is a low hill (Z) dotted with scrub and rocks which appear to be clear of the enemy.

The enemy's infantry have been located on a ridge about 900 yards beyond Hill X, but it is not certain if he has any troops on Hills X and Y. Everything is quiet, except for artillery; the enemy are occasionally shelling the ground about 500 yards away to the right, but do not seem to have located your company.

2. **FIRST PHASE—Preliminary.**—Your platoon commander calls up his four section commanders, and they

crawl up to a group of rocks from which a view of Hills X, Y and Z can be obtained. He gives his orders thus:—

Information.—As above.

Intention.—I am going to advance to Hill X to cover the advance of No. 2 platoon to Hill Y.

Plan.—No. 2 section.—Move in five minutes to Hill Z.—From there cover our advance to Hill X. As a precaution No. 4 section will get into a position here, ready to cover No. 2 section's advance.

As soon as No. 2 section is in position, I shall move with the rest of the platoon straight to Hill X. Nos. 1 and 3 sections in front—No. 4 following 150 yards in rear of them—Nos. 1 and 3 sections will extend to 5 paces—No. 1 on the right will direct—Look out for your outer flanks.

When we get to Hill X, Nos. 1 and 3 sections will crawl up into a fire position. The left of No. 1 section will be near that green bush. No. 2 section will rejoin. I will then give orders for the occupation of the fire position.

Position of platoon headquarters.—I shall be close behind Nos. 1 and 3 sections.

The platoon commander then asks if all understand, and dismisses the section commanders, who go back to their sections, explain the orders and get ready to advance, loading rifles if not already loaded.

3. SECOND PHASE.—The Approach.

No. 4 section gets into position to cover No. 2 section's movement to Hill Z.

The section commander looks round before going back to his section and decides where to put his Lewis gun. He selects a bank from which Hill Z is visible but from which the gun cannot be seen from the front.

He goes back to his section, tells them briefly what the section's first task is, leads the gun up to the position he has selected and points out Hill Z to the No. 1. The gun gets ready to fire, the Nos. 1 and 2 lying beside it, the rest of the section staying under cover a few yards in rear.

The above should not take more than two minutes. The gun of No. 4 section is ready.

No. 2 section moves to Hill Z.—The first problem for No. 2 section commander is in what formation to move to Hill Z, and which way to go. He must not make too big a detour or he will waste too much time. He sees a hedge (A) running nearly straight towards Hill Z. He decides to go along it. He moves his section a little to the left under cover, points out the hedge and Hill Z, sends two scouts 50 yards in front, and follows with the gun and the rest of his section.

His movement is unnoticed. The scouts get on to Hill Z. There is no enemy fire.

His next problem is similar to that of No. 4 section; he has to choose a fire position for his gun from which it can shoot towards Hill X. Having done this he notices that he can only see about 30 yards to his left, so he sends out one of his scouts 40 yards to the left to watch that flank. He then gets the gun into position, leaving the rest of the section close behind it under cover, lies

down himself near the gun where he can watch Hill X and the progress of the platoon, which he proceeds to do as soon as he has given the gun numbers the necessary indication of target (*see Sec. 9*).

No. 2 section is ready to fire at any enemy which may start shooting at the platoon.

Nos. 1 and 3 sections lead the advance of the platoon to Hill X.—The platoon commander having seen No. 2 section is in position starts Nos. 1 and 3 sections off, not straight over the top of the ridge on which he is lying (which movement would immediately be seen by the enemy), but round the shoulder a little way to the right. No. 1 section leads the way in file, section commander in front.

As soon as he gets to open ground, the No. 1 section commander decides to deploy and orders, "No. 1 section—To the right—to five paces extend—By the Left." The section commander takes his place in the centre of his section, and as part of the extension.

30 yards on his right the view is obstructed by a bank, so he sends out two men to move along that bank and keep a look out to his right. The section advances in quick time.

No. 3 section extends on the left of No. 1 section in the same way. The ground on the left is open for 300 yards so there is no need to detach men to that flank.

No. 4 section follows Nos. 1 and 3 sections.—This section has only to follow 150 yards behind the centre. The section commander adopts file or arrow-head formation.

The platoon commander with his platoon serjeant and an orderly is marching 50 yards in rear of Nos. 1 and 3 sections.

THIRD PHASE.—The Fire Fight.

The enemy opens fire from Hill X.—The advance of the platoon proceeded quietly for about 150 yards when suddenly the enemy opens fire from Hill X, four shots almost simultaneously and then a pause. There is a bank 100 yards further on. The platoon commander noticed it before the firing began. He orders "Line that bank."

Section commanders of Nos. 1 and 3 sections repeat the order, and the two sections double forward. No one has been hit. But the enemy had hardly fired before the fire of the Lewis gun of No. 2 section at Hill Z commenced. Their next volley is consequently wild, and after a few more ineffective shots they cease fire.

Nos. 1 and 3 sections reach the bank, the platoon commander with them. No. 4 section is running up to join them, there being no other cover in rear to go to.

The platoon commander gives the *fire direction order*—Open fire on the hill—Sections distribute left and right of the green bush—Five hundred."

Fire Control Order by section commanders.—

"No. 1 section—Five hundred—Hill straight in front—Green bush and to right of it—Three rounds—Distribute—Fire."

There is no occasion for rapid fire. No. 3 section commander gives a similar order, firing on the green bush and to the left of it.

The enemy ceases fire.—The enemy's fire completely ceases before the three rounds have been delivered. It is evident that it is only an advanced post and the Lewis gun has been effective. It will be well, however, for this gun not to cease fire altogether just yet, and No. 2

section commander orders it to keep up short burst on the hill at intervals.

It is now for the platoon commander to decide when and how to resume the advance. He notices a wall (B) about 200 yards further on. That will be his next fire position. The covering fire of No. 2 section has been effective, and there is no need to arrange for more. He orders Nos. 1 and 3 sections to rush to the wall. They get ready, and on his word "Go" they start together, extending to five paces, the platoon commander leading them in the centre at a steady double. No. 2 section, seeing them start, opens a long burst with the gun. No. 4 section follows as before.

There is no further enemy fire.

5. FOURTH PHASE—The Assault.

Advance to Hill X.—On reaching the wall the platoon commander decides that his best plan is to push straight on and not give the enemy time to recover. After a short pause behind the wall to enable the men to get their breadth, he orders "Lead on, in quick time."

They reach Hill X, to find the enemy gone. Nos. 1 and 3 sections lie down on the top, taking care not to expose themselves. No. 4 section closes up under cover in rear. No. 2 section is seen coming across to rejoin.

The platoon commander issues orders for the occupation of the hill as a fire position from which to cover the advance of No. 2 platoon to Hill Y.

6. FIFTH PHASE—Reorganization.

Occupation of the fire position.—The platoon commander, without loss of time, looks round and selects

fire positions for his sections, the commanders of which, without orders, have crawled up and joined him. He has two duties:—

- i. To cover the advance of No. 2 platoon to Hill Y.
- ii. To arrange for his own protection.

He can see no enemy on Hill Y, which is about 400 yards to his right front, and the few enemy who were on Hill X have disappeared.

He directs each section commander where to go and points out the target or targets he is to be ready to engage.

The platoon commander's orders are as follows:—

Information.—That is Hill Y, which No. 2 platoon is to occupy. I see no enemy anywhere.

Intention.—We will hold on here and be ready to cover No. 2 platoon's advance.

Plan.—No. 2 Section.—To those bushes 30 yards to the right—Be ready to engage top of Hill Y. Look after our right flank.

No. 1 Section.—Remain where you are—Be ready to fire on lower crest of Hill Y as far as the bare tree in hedge this side of it.

No. 3 Section.—Get a few yards further forward where you can see the ground in front and be ready to engage any target between the bare tree and the haystack in front—Look after our left flank.

No. 4 Section.—Remain in reserve in present position but be ready to get into action alongside No. 2 section if required.

- The range to Hill Y is 400 yards—To the bare tree 450 yards—To the haystack 600 yards.
- No firing till I give the order.

Headquarters.—I shall remain here.

Section commanders ask any questions they wish, say they understand, crawl back, explain rapidly to their sections, lead them to the positions ordered, and get ready to fire by giving preparatory fire orders.

The platoon commander then orders his orderly to semaphore back "All ready" to company headquarters.

The platoon is ready to carry out its task, and section commanders watching their targets; the platoon commander keeping his glasses fixed on Hill Y. The platoon serjeant, who has been looking back, says "No. 2 platoon advancing, Sir."

7. Action by Nos. 1 and 2 platoons.

No. 2 platoon advances on Hill Y.—If No. 2 platoon is fired at during its advance, No. 1 platoon commander immediately opens fire, his order being simply "No. 2 (or No. 3 or Nos. 2 and No. 1) section(s)—Open fire", or any sections he desires, and controlling the fire by such orders as "No. 2 section—Stop", "No. 1 section—Stop—Fire on Hill Y—Go on", and so on, section commanders always giving the executive fire orders.

Subsequent action by No. 1 platoon. This depends on the company commander's orders. After No. 2 platoon is in position on Hill Y, Nos. 1 and 2 platoons may have been ordered to cover the advance of Nos. 3 or 4 platoons, or both, between the two to the next

position. Nos. 1 and 2 platoons may then come into company reserve, and so on.

In every case, covering fire has been arranged for in the plan of advance of the company or platoon commander, and is given by stationary sections or platoons sent to definite fire positions for that purpose.

35. *Example of a section in the defence*

1. **Narrative.**—It is assumed that there is time to organize a defensive position and that the company to which the section belongs has been able to take up its allotted positions without interference on the part of the enemy. No. 1 platoon commander has issued instructions for the sections of his platoon to occupy the defensive posts as shown in Plate II (page 102).

2. **FIRST PHASE.**—**The preparation and organization of a defensive position.**

No. 1 platoon has arrived on the ground. All sections start working on their section posts.

Nothing has been heard of any enemy being in the vicinity of this platoon area.

Problem for solution by section commanders.

What preliminary steps would they take to prepare the section posts for defence?

Solution.—Their answer should include (*see* Chapter VIII):—

- i. The detailing of individual men as reliefs for look-out and work on the defences.
- ii. The type of cover they would make on the assumption that the normal allotment of tools is available.
- iii. The ground they must make a special point of being able to sweep with fire. For example No. 3 section must sweep with fire across the

front of No. 2 section and the southern edges of ROEDEER WOOD; No. 2 section must sweep with fire across the front of No. 3 section and No. 2 platoon, and also the S.W. corner of ROEDEER WOOD.

- iv. The arrangements to make the post capable of all-round defence.
- v. The selection of reference points and the preparation of a range card.
- vi. The arrangement for the Lewis-gun ammunition.
- vii. The steps they would take to conceal the excavated earth.
- viii. The information and instructions they would give the sentries.

Problem for solution by No. 3 section commander.

Assuming that he has made all the arrangements referred to in the solution above, what additional arrangements would he make for the organization of his post at night?

Solution.—Post double instead of single sentries, and work out the time table of reliefs accordingly.

State his cut-and-dried plan of immediate action in case of alarm.

Indicate the landmarks he would select which would serve as an aid at night to knowing the direction of the neighbouring posts, and platoon headquarters.

Fix bayonets.

Explain his arrangements by which each man could fire in certain directions at night, if necessary, without risk of firing into a neighbouring section.

Study the ground in front of the platoon area and indicate the places he would make for, and the means he would take to keep direction, if ordered to go out on patrol during the night.

3. SECOND PHASE.—Approach of the Enemy.

Narrative.—About two hours after the covering troops had been withdrawn, the sentry of No. 1 section calls the attention of the section commander to a hostile cavalry patrol of about one section, moving south from X. The scouts of this patrol have at this moment reached a point about where the X of "From X" is marked in Plate II.

Problems for solution by No. 1 section commander.

What action will he take?

Situation.—The sections by now should be sufficiently dug in to give them cover from view. The job of the hostile patrol is presumably to reconnoitre.

Decision.—Adopt a position of readiness to open fire when decisive result can be obtained. Signal "Enemy in sight" to platoon headquarters and other posts.

Lessons specially introduced by this problem.—Premature opening of fire discounts surprise. Importance of being able to communicate with platoon headquarters and other posts without giving away position.

In this phase further problems for solution can be set by explaining imaginary actions on the part of the cavalry patrol and calling on section commanders to explain what action they would take.

4. THIRD PHASE.—The Fire Fight.

Narrative.—The enemy cavalry turned out to be the van of an advanced guard. The enemy infantry have deployed and are attacking the position.

For this phase, the problems for solution are set by pointing out the imaginary positions of various groups of attacking enemy, the section commanders being required to give "Fire orders."

5. FOURTH PHASE.—Enemy Assault.

Narrative.—On the east side of the road the enemy occupied the SLAG HEAP, and opened machine-gun fire from there, but no infantry could be seen advancing on that side of the road.

On the west side of the road, in spite of many casualties, the enemy succeeded in penetrating the chain of posts, and got possession of the spur occupied by No. 2 platoon, under cover of smoke.

As the smoke cleared, No. 2 section commander realized this, and also saw a small group of the enemy crossing the road immediately east of the post which had been occupied by No. 2 platoon—evidently their intention is to attack No. 3 section post.

Problem for solution by No. 2 section commander.

What action will he take?

Situation.—Enemy firing from SLAG HEAP but not advancing. Enemy's penetration on left requires attention.

Decision.—Leave one man observing to the front (No. 1 section can deal with the enemy on SLAG HEAP), turn the Lewis gun, and the remainder of the men, facing left. Give a fire order to fire at the enemy crossing the road.

Special lesson introduced by this problem.—Infantry allotted to a defended post are responsible for holding it at all costs, and for inflicting the greatest possible loss on the enemy.

The fact that any post or locality in their neighbourhood is lost must, on no account, be considered a reason for them to withdraw, in order to conform with a consequent readjustment of the line.

Narrative (continued).—The fire of No. 2 section, catching the enemy in enfilade, left but four of them able to move. These got under cover of a steep bank and opened fire on No. 2 section.

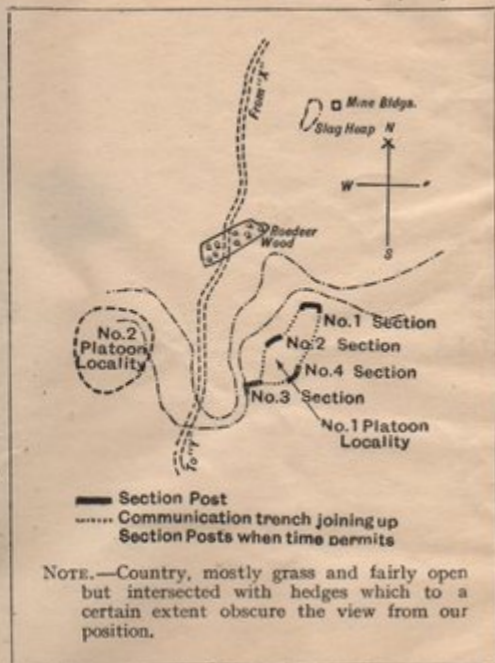
Problem for solution by No. 3 section commander.

What action will he take?

His choice of action depends on exactly how the situation appears on the ground where the problem is set. He might be in a position to open fire on them, or, if they are under cover and range will permit, to fire rifle grenades to drive them from their cover, and so enable No. 2 section to fire at them in the open.

6. FIFTH PHASE.—The Counter-attack.

Narrative.—A counter-attack by a reserve platoon is now launched to regain the lost position.



Problem for solution by Nos. 2 and 3 section commanders.

The fire orders they would give to assist the counter-attack.

Narrative (concluded). — The counter-attacking platoon, assisted by the fire of Nos. 2 and 3 sections, succeeded in defeating the enemy and regaining the position lost by No. 2 platoon.

36. Quick decision exercise

1. The quick decision exercise is intended to be used as a quickening exercise for the section commander after he has been thoroughly grounded in tactical training by exercises without troops.

In these exercises without troops he has ample time to solve his problem and to discuss it with others.

Now he has to make up his mind alone and quickly, and to handle a section which would, normally, be composed of other section commanders.

2. Method of preparing the exercise:—

- i. The quick decision exercise must be prepared beforehand with as much care as is necessary in the preparation of a tactical exercise without troops.
- ii. Each problem must be such that the section commander solves it as he would on service, that is, by immediate action without discussion.
- iii. It is not, however, necessary that the different problems should be linked up by a narrative,

that is, that they should be the consecutive phases of a battle. After the first problem each situation may be a completely fresh one entirely unconnected with that preceding it.

3. *Method of carrying out the exercise:*—

- i. The instructor should initiate the exercise by giving the section commander an outline "situation" such as, in the attack, telling him that his section is the left flank section of a platoon advancing in diamond formation to an indicated objective.
- ii. The section commander should then act in accordance with the situation given to him.
- iii. When the section is in the required position, the instructor should create the situation required to produce his problem. This must be done, in nearly every case, by means of a pre-arranged signal from the instructor to fatigue men provided with rifles and blank ammunition who represent the enemy.
- iv. A fresh party of fatigue men will generally be required for each problem and, to facilitate signalling, each party should be given a number corresponding with that of the situation in which they are taking part.
- v. The value of the exercise will be considerably lessened unless the problem is produced by surprise fire or by the appearance of an actual enemy. However, there are a few useful situations which can be produced verbally by the instructor.

vi. In cases where the problem is created by surprise fire, the enemy should be invisible. The section commander, if he determines to return the fire, will have to locate his enemy before he gives his fire order. If he fails to locate them, and if the exercise would lose value thereby, the instructor should, by pre-arranged signal, cause the enemy to show themselves for one minute.

vii. After each situation the instructor should:—

- (a) Criticize solutions.
- (b) Sum up.
- (c) Give what he considers to be a correct solution.

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