



INFANTRY TRAINING

CANADA

1904

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INFANTRY TRAINING, CANADA

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PREFACE.

In creating a citizen army, an army of busy men, men actively and continuously engaged in civilian pursuits for their livelihood, one of the great difficulties to contend with is the shortness of the time which they can give to the acquiring of military knowledge. To overcome that difficulty, then, it is of the first importance that they should be taught only those things which are really necessary to their military efficiency, and that their drills and exercises should be of the simplest possible description, and such as may be fairly well learned and practised within the limited time which can be devoted to such work.

In the future, in Canada, Cavalry armed with the rifle will be in much larger proportion, relatively to the other arms, than it has been in the past, and the probability is that from time to time there will be much interchange between the Cavalry and the Infantry, and occasionally a hasty augmentation of the mounted force by the transfer of foot soldiers to it. It is very desirable, then, not only that the drills and exercises shall be as simple

as possible, but that they shall be applicable, as nearly as can be, to Cavalry and Infantry alike, that the alphabet and the grammar of the soldier's training shall be the same for him who marches and for him who rides. That is the aim of this book. In order to carry out this idea the drill has been made uniform with that which is laid down in the "Cavalry Training" recently prepared for the Canadian Cavalry. And not only has the mere drill been simplified, but the rifle exercises, the skirmishing, and all the other important work which are necessary to bring the soldier face to face with an enemy and enable him then to act to the best advantage, are here laid down in concise and easily acquired form.

Besides the simplification of drill and exercises, the basis of the organization adopted—an "Eight" with a leader—is one peculiarly well suited to a citizen soldiery. The new system of Establishments for the Militia provides for an Army the skeleton of which is to be trained in time of peace, to be expanded, on the declaration of war, into a force nearly three times as great, and the providing of leaders for this augmented Establishment can only be done by training those leaders with the

skeleton units in peace time. For this purpose small commands are the best—in fact they form the only means by which it is possible to train and develop any considerable number of leaders. Eight men are the most suitable number for such an organization, and for that reason that number has been adopted.

Although the system of exercises has been simplified and shortened, it must not be supposed that therefore drill is to be ignored. The fighting of the present day must necessarily be in open order with very wide intervals between units and men, and consequent diminution of power to command and control; yet, this very fact renders it the more necessary that the preliminary training shall be of the best, that movements in close order shall be abundantly practised, that the strictest attention shall be paid to the correctness of intervals and distances when marching, and, above all, that steadiness and discipline shall constantly be inculcated. Without such preliminaries it is impossible to commit troops to the skirmishing line with any degree of confidence or with the assurance that they will rally and be steadfast in sudden emergency.

Though the rifle exercises have been very much curtailed, it must be impressed upon all ranks that now more than ever before is efficiency in rifle shooting of the utmost importance.

So, if the Canadian soldier will acquire such a knowledge of his rifle and skill in its use as will make him thoroughly confident in his own powers as a marksman, if he will keep up his physical strength so as to be able to make long marches without fatigue, and if he will diligently study all that is in this book, and in the Placards of Instruction issued in 1903 to the Canadian Militia, he will, as far as human foresight can provide, be able to hold his own in the Twentieth Century just as his forefathers have done before.

A handwritten signature in cursive script, reading "J. McDonald" with "M.G." written below it.

Commanding Canadian Militia.

March, 1904.

PART I.—ORGANIZATION AND DRILL.

SECTION I.—DEFINITIONS.

(a) Organization Definitions.

A Division—Usually two Brigades of Infantry.

A Brigade—Two, three or four Battalions.

A Battalion—Consists of eight companies as a rule.

A Company—Consists of as many Sections as there are Sections in it. In order to keep to the limits assigned by organization, a Company should not exceed about 128 men.

A Section—Consists of two lots of eight men with their leaders. In line or Column, down to and including Column of Sections, each eight men or Eight is covered or followed by a rear Eight. In Column of Fours the leading and rear Eights of a Section are parallel with one another, each in Column of Twos. In Column of Twos the leading and rear Eights of a Section are parallel with one another, each in Column of Ones.

An Eight—Consists of eight men who work together.

A Two—Two men, an odd and even number, who work together.

A One—One man.

(b) Formation Definitions.

Order of Formation—The mode or order of disposition of troops, whether it be Line, Column, Echelon, &c.

A Line (double line)—One or more Eights in a single Line covered by one or more Eights in a single Line at 2 paces distance. Each man occupies 30 inches front.

A Single Line—Two or more men in a single line.

A Column—Bodies of troops following and covering one another. When the bodies are at such a distance from one another that a wheel to either flank will bring them into line with the normal intervals, the formation is known as Open Column.

Column of Companies—Companies in Open Column each Company in line.

Column of Sections—Sections in Column, each Section in line, *i. e.*, one Eight behind the other.

Column of Fours—Consists of a Section in two parallel Columns of Twos (or two men). One of the Columns consists of the leading eight of the Section, the other Column consists of the rear eight of the same Section.

Column of Twos—Consists of a Section in two parallel Columns of Ones. One of the Columns consists of the leading eight of the Section, the other Column consists of the rear eight of the same Section.

Mass—A Battalion formed of a line of Companies, each Company in Column with a frontage of one Section, or, if specially ordered, two Sections, each Section in Line with 3 paces interval between Companies.

Quarter Column—Companies in Line covering one another in Column at 6 paces distance.

Close Column—Companies closed up to half Quarter Column distance.

Line of Battalion Quarter Columns or Masses—A Line of two or more Battalions, each formed in Quarter Column or Mass, with 30 paces interval between them, or such deploying interval as might be ordered.

Column of Battalion Quarter Columns or Masses—A Column of two or more Battalions, one behind the other at such a distance that a Line of Battalion Quarter Columns or Masses having the correct intervals can be formed to a flank by wheeling the heads of Battalions.

Echelon—An Echelon consists of a step-like formation of Companies or other bodies at normal line intervals apart and at such distances from one body to the other that a wheel of each body to Right or Left would bring the whole formation to the Right and Left with the correct line intervals.

Double Echelon—Double Echelon can be formed by the centre of a formation advancing and the step-like formation or Echelon being formed on each side of the centre.

Echelons can be at increased Intervals or Distances if ordered.

(c) Drill Definitions.

Alignment—The straight line on which the front of a body of troops is formed or is to be formed.

Alignment (New)—The line on which a body of troops is marching after it has changed its direction, or on which troops are to be formed.

Base—Two points marked by officers, N.C.O.'s or men, placed at a distance apart to indicate a line by the prolongation of which the proper alignment of a Line or the covering of a Column may be obtained. In the former case it is termed an "Alignment Base." In the latter a "Covering Base."

Base Body—The body on which a formation is made.

Change of Position—A movement by which a body of troops moves altogether off its ground and reforms on a new alignment.

Covering—The act of a body placing itself correctly in rear of another body.

Deployment—The formation of a Line from Column.

Deploying Interval—The interval between contiguous Columns necessary to enable them to form Line.

Depth—The space occupied by a body of troops from front to rear.

Directing Body or Unit of Direction—The body on which the direction, pace, and alignment of a Line, or the direction, pace, and relative positions of the several parts of a Column or Echelon depend, *e.g.*, Company of Direction, Directing Section, etc.

Distance—The space between men or bodies of troops from front to rear.

Dressing—The act of taking up an alignment correctly.

Flank or Flanks—The side of a Line or Column. The right flank is on the right of the troops composing it, the left flank on the left of the troops composing it.

Frontage—The space occupied by a body of troops from one flank to the other.

Inclining—A movement by which a unit simultaneously gains ground and moves to a flank whilst maintaining the general direction parallel to the original alignment.

Interval—The lateral space between men or bodies of troops from flank to flank.

Markers—Serrefiles (Supernumeraries) employed in certain cases to give bases or mark points on which to march.

Pace.—A measurement of distance. It equals 30 inches for this purpose.

Pace.—The rate of Speed (for drill)
A man marches

In quick time 100 yds. a minute = 3 miles 720 yds. an hour

In double " 200 yds. a minute = 6 miles 1440 yds. an hour.

Parade Line—The line on which troops form for review and from which the reviewing officer is received and saluted.

Parade Movements—The movements laid down for the inspection of a regiment or body of troops.

Passing Line—The line on which troops march past at a review, and at the centre of which is the reviewing officer's post.

Serrefile (Supernumerary)—An officer, N.C.O., or man detailed to march in rear of a Section or Company.

Unit of Direction—See *Directing Body*.

Wheel—A movement by which a body of troops brings forward a flank on a pivot. Thus on the command “Right Wheel” the troops wheel to the right. If the command “Right Wheel” or “Left Wheel” is preceded by the caution “Moving Pivot”, the Pivot man and flank of the troops wheeling describe an arc of a circle whilst gradually changing direction.

SECTION II.—POSTS AND POSITIONS OF OFFICERS AND LEADERS, ETC.

Brigadier—When his Brigade is working, where he can best supervise it and carry out his work. On Parade, in Line, Mounted, 12 paces in front of the centre of the Commanding Officers; on Foot, 12 paces.

Commanding Officer—When the Battalion is working, where he can best supervise it and carry out his work. When the Battalion is drawn up on parade, in front of the centre of officers, Mounted, 12 paces distance; Foot, 12 paces distance.

Second in Command—When the Battalion is working, where he can best assist the C. O. On Parade, Battalion in Line, Column, or Mass—on the right flank in line with the Section Leaders. Mounted, 3 paces clear of the right flank; Foot, 2 paces clear of the right flank.

Adjutant—When the Battalion is working, where he can best assist the C. O. On Parade, Battalion in all formations—on right rear of C. O. at—Mounted and Foot—2 paces distance.

Company Commander—When the Company is working, where he can best supervise it and carry out his work. On parade, in Line or Mass—on the centre of the Company at 2 paces in front of the Leaders. Quarter column, on right flank.

Company Second in Command—When the Company is working, where he can best assist the Company Leader. In all formations, in rear of the right of the Company or leading portion of it at 2 paces distance.

Section Leader—When the Section is working, where he can best supervise his Section. On Parade, in Line, (double line)—in front of the right man of the leading Eight of his Section, 2 paces distance. In Column on the right of the head of his Section at 2 paces.

Eight Leaders—Section in line, (double line), Leading Eight Leaders in front of the right centre man of their Eights at 2 paces distance; Rear Eight Leaders in rear of the second man from the right of their Eights at 2 paces distance. Column of Fours—In front of their respective Columns of Twos, at 2 paces distance. Column of Twos—In front of their respective Columns of Ones, at 2 paces distance.

The Battalion Serjeant-Major acts as the Battalion marker, assisted by a serrefile. When the Battalion is in Line, or Line of Company Columns, he will be in rear of the Company of Direction; when in Column, on the outer flank of the leading Section.

Machine Guns, Cyclists, Pioneers, Band, etc., on parade, 6 paces from the left flank of the Battalion, covering each

other from front to rear in the following order—(a distance of 2 paces between each detachment):

Machine Guns ;
Cyclist Sections ;
Pioneers ;
Signallers ;
Drummers ;
Band ;
Mules, Wagons ;
Stretcher Section.

SECTION III.—INTERVALS AND DISTANCES.

Intervals are measured—From hand to hand.
Distances are measured—From heel to toes.

(a) Intervals.

Formation.

Line	Between Men,	6 inches.
“	“ Sections,	nil.
“ (normal)	“ Companies,	3 paces.
“ (normal)	“ Battalions,	30 “
		(exclusive of Band and Staff.)
“ (normal)	“ Brigades,	30 paces.
Line of Company		
Columns (normal)	“ Companies,	Frontage of all the rear Sections of the Company plus 3 paces.
Mass	“ Companies,	3 “
Line of Quarter Col- umns & Masses (nor- mal)	“ Battalions,	30 “
“	“ Brigades,	30 “

Column of Fours.—No interval between Columns of Twos.

Column of Twos.—No interval between Columns of Ones.

All intervals can be increased or reduced for special reasons.

(b) Distances.

Formation.	Between.	
Sections in Line.	Leading and rear of eights of Sections.	2 paces.
Open Column.	One body to another.	Such a distance that a wheel to either flank would bring the Column into Line with the proper Line intervals, or such other intervals as may be ordered.
Battalion Quarter-Column	Companies.	6 paces.
Column of Battalion Quarter Columns or Masses.	Battalions.	30 paces.
Column of Ones.	From one man to another	1 pace.
Column of Twos.	From two men to two men	1 pace.
Column of Fours.	From four men to four men	2 paces.
Column of Sections.	Sections	Such a distance that a wheel of the heads of Sections to either flank would bring the Column into line with the right intervals.
“	Companies.	

Distances between different arms marching, 30 paces.

SECTION IV.—RECRUITS TRAINING.

Discipline.

The first and great lesson to be taught the soldier, whether he be officer, non-commissioned officer or private soldier, is respect for Military Authority. He cannot too soon be impressed with the fact that unhesitating obedience to orders, never failing punctuality, and a respectful demeanor towards his Military superiors are indispensable in all armies. His conduct should be such as to make him thoroughly reliable. There should be mutual confidence between the commander and the commanded, the one confident that his orders will be implicitly carried out, the other equally determined, come what may, to carry out his orders. This means Discipline—a state without which armed men are not a soldiery but a rabble which cannot be relied upon either in peace or in war.

The “Salute” is the outward sign of respect for authority. It is used in the Army of every nation. It is given not to the individual but to the commission which has made the individual a superior officer and as such representative of His Majesty’s authority.

The “Salute” is performed as follows: The right hand is raised smartly to the forehead, palm to the front, fingers extended, point of the forefinger one inch above the right eye, elbow in line and nearly square with the shoulder. After a pause the hand is cut away.

Squad Drill in a Single Line.

The purpose of Squad Drill is to train men as soldiers, and to fit them for their places in the ranks.

A Squad may consist of any convenient number of men formed in a single line.

The rifle will be carried at most drills by the Instructor, and at all drills by the Instructed, unless otherwise ordered.

The Instructor must always carry a whistle.

The Instructor, whether officer or non-commissioned officer, must bear in mind that good result is the object in view, that to bring that about he must adapt himself to the intelligence of his men, must make allowance for their different capacities, and at the same time must be clear, firm, and concise in his instructions.

The Squad falls in in Single Line, each man being allowed the space of 30 inches.

Telling off the Squad.

The Squad will number from the Right.

When numbering, each man will turn his head to the next man and at once turn it again to the front.

“Even numbers prove.” “As you were.”

“Odd numbers prove.” “As you were.”

To prove, extend the disengaged arm.

On the command “As you Were,” drop the hand to the side.

Position of Attention.

When standing at Attention the heels are in line and closed; toes turned out so that the feet may form an angle of 45 degrees; knees straight; hips drawn back; chest advanced; arms hanging easily from the shoulders; head erect and eyes looking straight to the front.

Kneeling Position.

When kneeling, the weight of the body should rest on the right heel ; left foot about a pace to the front of the right toe ; left fore-arm behind the left knee.

Lying Down Position.

When lying down the stomach is on the ground ; head and eyes to the front ; body oblique to the front, legs separated.

Marching—Length of Pace and Time.

In quick time the ordinary length of pace is 30 inches ; stepping out, 33 inches ; and in double time it is 40 inches.

In quick time, 120 paces—equal to 100 yards—are taken in a minute, making the rate 3 miles and 720 yards an hour ; and in double time 180 paces—equal to 200 yards—in a minute.

In marching, the soldier must maintain the erect position, with the weight principally on the fore part of the feet. In quick time the disengaged arm swings naturally from the shoulder, and moves forward with the opposite leg, but should not be moved across the body. The movement of the leg should be free and natural.

The Stand at Ease.

Keeping both legs straight, carry the left foot about ten inches to the left, at the same time raise both hands behind the back above the buttocks, and grasp the right hand with the left.

Marching in Single Line.

Before the Squad is set in motion rifles should be sloped.

On the caution "By the Right," (or "Left") the man on the named flank will be given an object to march on.

On the command "Quick March," all step off together, the guiding man marching on the object pointed out to him, and the remainder preserving their dressing and their interval by him.

The readiest way to teach men to march is to make them mark time frequently by the command "Mark Time," and to move them on again by the command "Forward." When marking time the feet are raised alternately about six inches by bending the knee, but without moving forward or backward. When marking time the men should be taught the "Turnings."

Dressing.

To dress means to straighten—to get men exactly level.

On the command "Right Dress" each man glances to the right, but without bending the body, and moves gently forward or backward until he can just see the lower part of the face of the second man from him, but being careful to preserve the interval. When dressed he looks to the front.

The Instructor should fix upon some distant object on which to dress the line. If the first three men are accurately dressed the others will easily be brought into line. Dressing to the left will be taught in the same way.

The Turnings.

A Squad when marking time and marching will be practised in turning.

The command to turn to the right is "Right—Turn"; to the left, "Left—Turn"; half-right, "Right—Incline"; half-left, "Left—Incline"; and to the right about, "About—Turn."

Changing Step.

To change step two paces are taken in succession with the same foot.

The Halt.

On the command "Halt" the soldier completes the pace and ceases to move.

The Double March.

In the double march the toes, and not the heels, touch the ground, the hands (or the disengaged one) are raised as high as the waist. The body is thrown more forward than in the quick march; otherwise the same rule applies to both. The recruits should be practised in changing from the quick to the double, and from the double to the quick, on the commands "Break into double time—Double," and "Break into quick time—Quick."

The Diagonal March.

The Squad will be taught to move diagonally on the command "Right Incline," on which each man will incline as ordered, the man on the right marching on the object selected for him, and each of the others preserving his relative position. If this march is properly performed the squad when turned in the original direction will be on a line parallel to its original position.

Changing Front or Direction.

A Squad in single line will be taught to wheel to the right or left. For example :—

1. *From the Halt.*—On the command “Right Wheel—Quick March,” the man on the right of the Squad will mark time and turn gradually to the right, the remainder will step off together, the man on the left or outer flank glancing inwards and stepping the full pace of 30 inches; each of the others will glance outwards and regulate his pace according to his distance from the inward or pivot flank man, being careful to preserve his interval from that flank and at the same time not move in front of the wheeling flank. In short the Squad is to move so that all shall be brought to the new alignment together, as a gate swings on its hinges.

The command “Forward” or “Halt” may be given at any period of the wheel; then the Squad will move forward or halt, as the case may be, and the men will take up their dressing by the point to which they dressed before wheeling.

The Squad will wheel to the left in like manner.

Extending.

A Squad will be taught to extend—that is, to increase the intervals between men in the following manner :—

On the command “From the right (or left) to—paces extend,” the man on the named flank will move on, and will guide, the remainder will incline from him and double, each one resuming the original direction and pace, and dressing by the guiding flank as soon as he has gained the named interval. Extensions may be made from the centre on the same principle.

Closing.

A Squad in extended order will be taught to close—that is to reduce the intervals between men, in the following manner :—

On the command “On the right (or left) close,” or on the command “On the right (or left) to——paces close,” the man on the flank named will move on ; the remainder will incline towards him and double, each one resuming the original direction and pace, and dressing by the guiding flank as soon as he has closed or has gained the new interval.

Closing on the centre is done on the same principle.

SECTION V.—ORGANIZATION.

Eight men and a Leader are in the following organization recognised as the base on which everything else is built.

The Company is recognized as the most important administrative and tactical unit. It is composed of Sections, each Section having its Leader. Each Section is composed of two Eights, each Eight having its Leader. Each Eight is divided into Twos or two men. The number of Sections in a Company is limited only by the strength of the Company. The strength of Companies should be fairly equal in a Battalion.

Sections should always, if possible, be raised from the same locality, and be composed of men who know one another and like serving together.

In addition to its strength of 18 as above, each Section will have a permanent serrefile belonging to it and working with it in the field

Including its Leader and serrefile each Section will consist of 20 for work in the field. Besides this number every Section may bring to camp two extra men to fill its own vacancies. These men with other supernumeraries in a Company may be formed into provisional Eights or Sections for work in the field, or may act as serrefiles.

Eights in a Company should always be kept up to strength so that not more than one Eight in a Company is below strength. An Eight need not necessarily be broken up for the temporary absence of a man, but if it falls below seven it must be either filled up or broken up.

If it is necessary temporarily to break up a Section owing to its weak strength, it should be reconstructed again as soon as possible.

Each Eight will work together in quarters, camp and field, and be known by the name of its Leader, thus-- "Sergeant Stuart's Eight."

A Two, or two men will always work together in quarters, camp and field, and should not be broken up during their service in the Company unless under exceptional circumstances.

A Company Leader will be assisted in his work by the Second Senior Officer who will be Second in Command of the Company. He will under the Company Leader exercise general supervision, and when occasion requires, may command portions of the Company. All ranks not forming part of the Field strength of Companies will be utilized by the Company Leader to the best advantage for carrying out the work of the Company.

Facilities must be given both in Companies, Sections and Eights for the training of Seconds in Command.

NOTE.—The main objects considered in the foregoing organization are :—

(a) To keep Sections up to a certain definite strength so that when a Section is ordered to undertake a certain duty, so many rifles go out to do it, for an enemy is beaten not by names but by rifles.

(b) To facilitate the creation of large numbers of subordinate Leaders by the establishment of small commands, and thus make it easy to deal with large numbers of men who have comparatively little training. Eight men constitute the minimum number with which it is possible to carry out satisfactorily any considerable amount of semi-independent work. In framing the duties of Infantry in all its branches in this Manual, the utilization of eight men and a leader has been availed of to the fullest possible extent.

(c) It is moreover obvious that in making a small command a fixed number of men, great assistance will be given to Leaders in learning their work. If a leader has commanded his eight men skirmishing, has disposed his eight men in the proper manner as a portion of an Advanced Guard, has disposed his eight men as a part of an Outpost Scheme, always working with eight men on certain well defined lines, as part of the military machine, he will remember on other occasions that he did such and such work with eight men and will therefore be better able to do it again; whereas if he commanded three men one day, five men another, and so on, he would, the probabilities are, not know exactly what to do when occasion arose unless he had studied military principles far more deeply than the majority of Leaders of small units have the opportunity of doing in the limited time at their disposal.

SECTION VI.—FORMATIONS AND DRILL.

The Section in Line.

A Section, or 16 men is said to be in Line (double line) when one of the Eights of which it is composed is in a single line, covered by the other Eight, at 2 paces distance. Whichever Eight happens to be in front is the leading Eight, and whichever Eight happens to be in rear is the rear Eight.

The Company in Line.

A Company is said to be in Line when all the Sections of which it is composed are in Line, and are also in Line with one another at no interval.

On the command "Quick March," or the signal of the Company Commander, the whole Company moves off together, the general alignment and cohesion of the Company being secured by the Leaders marching on the same alignment, and at the proper intervals.

The Leader of the leading Eight of the centre or right centre Section, termed the Directing Section, is under his Section Leader responsible that the correct pace and direction are maintained. The other leaders march at a uniform rate, and by an occasional glance align themselves on and take their intervals from him.

The Company Commander indicates to the Directing Section Leader the direction in which he is to conduct his Section.

All Leaders, while looking principally to the front, are to watch for any signal the Company Commander may make. The Company Commander should attract the attention of Section Leaders by whistle.

Extension.

Extension is usually made from the centre of a named Section after the interval has been obtained between Sections.

The Leaders maintain the alignment and interval, the men dressing to the centre of their own Eights. On closing, the Eight Leaders and men incline towards the named portion of the Company.

Any change of direction ordered by the Company Commander, when the Company is extended, should be carried out gradually by the Directing Section, due regard being paid to the pace at which the outer flank will have to move. The other Sections will conform rapidly but in an orderly manner, being careful to retain their proper intervals.

The Company in Column of Sections or smaller Bodies.

The march of each body is conducted on the same principle as the march in Line, the Eight Leader of the leading Section being responsible to his Section Leader for the pace and direction.

A column can change its Direction by wheeling the head of the Column. Thus: "Head, Right (or Left) Wheel," or "Half Right (or Half Left) Wheel—March." The leading body wheels; the remainder wheel in succession on arriving at the point where the leading body wheeled.

Forming a Section on Parade.

Eights will be told off from Right to Left.

"Even Numbers, Prove." "As you were."

"Odd Numbers, Prove." "As you were."

"Flanks of Eights, Prove." "As you were."

"No. Four, Prove." "As you were."

The One and Two, Three and Four, Five and Six, Seven and Eight, of each Eight will be told to keep together and work together. Thus—when an eight wheels “Twos Right,” the right of each Two turns to the right and the left man wheels on him. When it wheels “Twos Left,” the left of each two turns to the left, and the right man wheels on him. As Twos always work together any temporary inversion of numbers will have no effect.

Positions of Leaders of Eights:—The Leader of the Leading Eight is in front of No. Four at two paces distance; the Leader of the Rear Eight in rear of the second man from the Right at two paces distance from him.

Sections will be formed of two Eights covering one another at 2 paces distance.

A Section in Line.

	8	7	6	5	4	3	2	1
Leading Eight	0	0	0	0	0	0	0	0

	8	7	6	5	4	3	2	1
Rear Eight	0	0	0	0	0	0	0	0

Formation of Column of Ones.

A Column of Ones or a single Line of men in Column is formed by the advance of the leading Eight of a Section in a Column of Ones from or to the Right (or Left), followed by the remainder of the Eight, followed again by the Rear Eight of the Section in a similar manner to the leading Eight. In moving to a flank the leading Eight of a Section moves straight to the flank named, followed by the rear Eight of the Section.

The word to a Section or other body might be—"Advance in Column of Fours from the Right (or Left)" on which the Leading Eight and the Rear Eight of the Section would break into a Column of Twos, towards the front, the leading Two of the Rear Eight getting up parallel with the leading Two of the Front Eight.

[NOTE.—Head of the Right Column always directs.]

Or the word might be—"Right (or Left) Form Fours," on which both Eights would wheel "Twos Right" or "Twos Left."

[The Left Twos dress on the Right Twos. Head of the Right Column always directs.]

The Section in Line, having wheeled "Twos Right into a Column of Fours," (*vide Plate I.*)

Distance between Fours—

Such a distance that a wheel of Twos to either flank will bring the Section into Line, every man occupying 30 inches.

Plate I.

○ 2	○ 3	○ 4	○ 13
○ 2	○ 3	○ 3	○ 1
○ 2	○ 3	○ 4	○ 13
○ 2	○ 3	○ 3	○ 1

A Section in Fours forming Line to the Front.

Word—"Front Form Section."

[NOTE.—The Left Eight always forms in front of the Right Eight, and the men of each Eight always form on the left of the leading men of the Eight to which they belong.]

- (a) 1st Phase.
- (b) 2nd Phase.
- (c) 3rd Phase.

Section in Fours--

Front Forming Section—

Left Eight.	Right Eight.	
		$\begin{matrix} & & 0 & 0 \\ & & / & / \\ (b) & 2 & 1 & 2 & 1 \\ & 0 & 0 & 0 & 0 \\ & 4 & 3 & 4 & 3 \\ & 0 & 0 & 0 & 0 \\ & 6 & 5 & 6 & 5 \\ & 0 & 0 & 0 & 0 \\ & 8 & 7 & 8 & 7 \\ & 0 & 0 & 0 & 0 \end{matrix}$
(a) 2 1 2 1	0 0 0 0	
4 3 4 3	0 0 0 0	
0 0 0 0	6 5 6 5	
6 5 6 5	0 0 0 0	
0 0 0 0	8 7 8 7	
8 7 8 7	0 0 0 0	
0 0 0 0		

The Section formed in Line—

(c) 8 7 6 5 4 3 2 1
0 0 0 0 0 0 0 0
8 7 6 5 4 3 2 1
0 0 0 0 0 0 0 0

A Section in Fours forming Line to the Right.

Word to Section—"Right Form Section."

On this word of command the Twos of both Eights wheel to their right and form.

(a) 1st Phase.

(b) 2nd Phase.

Section in Fours—

Section facing Right—

(a) 2 1 2 1
 0 0 0 0
 4 3 4 3
 0 0 0 0
 6 5 6 5
 0 0 0 0
 8 7 8 7
 0 0 0 0

(b) 0 0 0 0
 0 1 0 1
 0 4 0 4
 0 3 0 3
 0 6 0 6
 0 5 0 5
 0 8 0 8
 0 7 0 7

[NOTE.—As the numbers become inverted in forming Line to the Right from a Column of Fours, Eights can be renumbered, but this will seldom be necessary. By odd and even numbers always remembering they work together in pairs, confusion is impossible. If Fours form to the Right, the right man of a Two turns to the Right, and the left hand man wheels on him. If Fours form to the Left, the left hand man of the Two turns to the Left and the right hand man wheels on him.]

A Section in Fours forming Line to the Left

Word to Section—"Left Form Section."

On this word of Command the Twos of both Eights wheel to their left and form.

Section in Fours—

Section facing Left.

(a) 2 1 2 1
 0 0 0 0
 4 3 4 3
 0 0 0 0
 6 5 6 5
 0 0 0 0
 8 7 8 7
 0 0 0 0

(b) — 0 — 0
 21 0 21 0
 33 0 33 0
 44 0 44 0
 55 0 55 0
 66 0 66 0
 77 0 77 0
 88 0 88 0

A Section in Fours forming Line to the Rear.

Word to Section—

"About Turn."

Word to Section after turning about—"Front Form Section."

The left Column of Twos (former Right Column of Twos) will form in front of the Right Column of Twos (former Left Column of Twos).

- (a) 1st Phase.
 (b) 2nd Phase.
 (c) 3rd Phase.

Section in Fours—

(a) 2 1 2 1
 0 0 0 0
 4 3 4 3
 0 0 0 0
 6 5 6 5
 0 0 0 0
 8 7 8 7
 0 0 0 0

Section in Fours facing former Rear and Front Forming Section.

(b) 0 0 0 0
 2 1 2 1
 0 0 0 0
 4 3 4 3
 0 0 0 0
 6 5 6 5
 0 0 0 0
 8 7 8 7

0 0
 8 7

(c) The Section formed—

0 0 0 0 0 0 0 0
 8 7 6 5 4 3 2 1
 0 0 0 0 0 0 0 0
 8 7 6 5 4 3 2 1

In Formations to the Rear, it must be remembered that when men turn about towards the rear the former rear becomes the front, and all formations are then made as if to a front. The former left becomes the right, the former right the left.

Line Formations.

There are two Line Formations—"Line" (double line) and "Single Line."

Description of a Line:—A Line is composed of one or more lots of eight men covered by the same number of Eights at 2 paces distance. The words "Double Line" would more correctly describe the formation, but to avoid unnecessary words the word Line is used. Eights can be at normal or increased distances from each other. If there is more than one Section the leading line of each Section must be in line with the leading line of the Directing Section, and similarly the rear line of every Section must be in line with the rear line of the Directing Section.

Description of a "Single Line":—A Single Line is formed of a single line of men—thus, the two Eights of a Section in line with one another would be a Single Line, and would often be used skirmishing, &c.

Assembly Formation of a Company.

A Company will fall in on its own parade in Line or Column—One Section Front, or Column—Two Section Front—and will if possible, form Line before joining the Battalion on parade.

Distance between Sections:—

When in Column the distance between Sections will be

such that a wheel of the component parts of the Column to the left or right would bring the whole into Line (double line) with the correct intervals.

Assembly Formation of a Battalion.

The Assembly Formation of a Battalion will be either in Line, or Column Section Front or Two Section Front, or in Quarter Column of Companies, or in Mass.

A Quarter Column.

A Battalion in Quarter Column consists of a Column of Companies, each Company in Line covering the Company in Front.

Distance between Companies, 6 paces.

Interval between Sections, Nil.

A Mass.

A Battalion in Mass consists of a Line of Companies each in Column, Section Front (Two Section Front can be ordered).

Interval between Companies, 3 paces.

Line of Battalion Quarter Columns or Masses.

Consists of a Line of Battalions each in Quarter Column or Mass.

Interval between Battalions, 30 paces.

Column of Battalion Quarter Columns or Masses.

Consists of a Column of Battalions each in Quarter Column or Mass at such a distance between Battalions that a wheel of the head of each Battalion would bring the Column into Line of Battalion Quarter Columns or Masses at the normal intervals of 30 paces.

Line of Company Columns.

This formation consists of a Line of Companies, each Company in any desired Column formation, usually Column of Sections. Unless otherwise ordered, the normal interval between Companies, the one from the other, will be such that if the word "Form Line" was given, each Company could form Line (double line) to the front, and there would be the correct interval of 3 paces between Companies.

An increased or reduced interval can be ordered between Companies or Battalions, and men can take any ordered interval.

When Infantry advances through wooded or broken country, it may often occur that the country is so difficult that progress can only be made by Companies moving in Columns of Fours, Twos, or even Ones.

Description of a Column.

A Column consists of successive bodies of men of any desired breadth, such as: One Front, Two Front, Four Front, Section Front, Two Section Front, Half Company

Front, Company Front, Battalion Front, or any other frontage required. Units can be formed at normal or any named distance from their front. The word would be, for example, "Form Column of Fours"; "Form Column Section Front"; "Two Section Front"; &c., &c.

A Column of Twos.

Consists of two parallel Columns of Ones from the leading and rear Eights of a Section.

A Column of Fours.

Consists of two parallel Columns of Twos from the leading and rear Eights of a Section.

A Column of Sections.

Consists of Sections in a Column, each Section in Line, that is to say, the leading Eight of each Section is in a single line covered by the rear Eight of the same Section in a single line

Distance between Sections—

Such a distance that a wheel to the right or left of the heads of Sections would bring the whole Column into Line (double line) with the correct intervals.

A Column of Companies.

Each Company in Line and covering the Company in front

Distance between Companies—Such a distance apart that a wheel of the Companies to the right or left would bring all the Companies into Line with the correct intervals, viz :—3 paces between Companies.

Increases of Front.

Increases of Front of a Column up to and including a Section are made by men forming on the left of the leading men of the Eight to which they belong.

Front forming Sections from Fours or Twos.

The head of the Left Eight always gets in front of the head of the Right Eight when forming.

Increases of Front of a Column to its former rear will be made by men first facing their former rear and then proceeding as above.

Increases of Front above Sections.

All Increases of Front above the formation of Sections will be carried out on the following principles :

If there are two bodies only, the rear body forms on the right of the leading body.

If there are three bodies, the body next the leading body forms on the right, the body next to that on the left.

If there are more than three bodies, the Increases of front will be carried out so that when completed the leading body shall be the centre of the new formation if the number of bodies is uneven ; or the right centre body if the number of bodies is even.

On the above principles—

Sections will be formed into a Company.

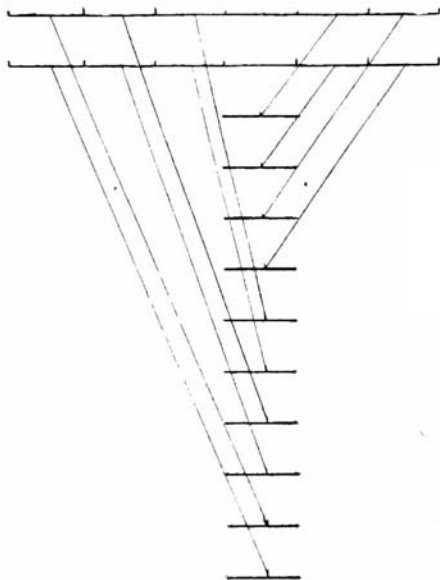
Companies will, when formed, be formed into a
Battalion,

Battalions will, when formed, be formed into a
Brigade.

Example of Increase of Front.

A Company of 6 Sections in Column of Sections receives the command "Front Form Company."

Plate. II



Decreases of Front.

Decreases of Front will be drawn from the right or left of Brigades, Battalions, Companies, Sections, &c., as desired.

In decreases of front the half Company or half Battalion from which the decrease starts should move off first.

Sample Commands for Moving Troops.

The commands "Quick March" and "Double" are used to move men.

The command "Halt" stops a movement; and the command "Halt—Dress" stops the movement and causes the body to dress on the alignment.

The command "About—Turn" changes the front,

To form a Column, the command is: "Advance in Column of," naming the kind of Column and the flank from which it is to move. For example, "Second Company, Advance in Column of Fours from the right; Quick—March"; "Advance in Column of Sections, No. — Company leading."

Changes of Direction.

Lines or Columns of small frontage change direction by the Wheel, thus—"Head, Right Wheel;" "Head, Left Wheel."

Lines and Columns of large frontage by the caution "Moving Pivot, Right Wheel;" "Moving Pivot, Left Wheel," on which order the whole body wheels to the named flank—the Pivot flank describing the arc of a circle. On the conclusion of a wheel the word "Forward" is given.

All units changing position can, if desired, break into Column of Sections or fours in the required direction and form on the body nearest to the required direction, the whole formation when completed facing the required direction.

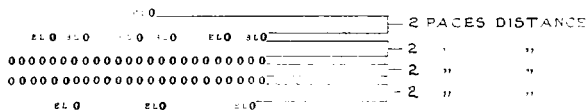
General Notes.

Though a Section in ordinary formations of manœuvring or assembling is disposed in two halves—one half Section commanded by a leader, followed by the other half Section commanded by a leader, this formation must not be confused with a rear rank, as each half Section or Eight will have the largest possible amount of independent action whenever necessary.

It must be clearly understood that though certain formations and certain drill movements are necessary for the proper working and movement of troops when not actually fighting, these formations and this drill are but a means to an end, *i.e.*, *the placing of men in the fighting line rifles in hand*. On no account, therefore, must too much time be taken up over the exact intricacies of drill movements, which might better be employed preparing men for what they must do when face to face with an enemy.

In the execution of any movement each unit is to be led to its position by the shortest routes. Leaders should practise manœuvring their men by signal only, especially in extended formations. There must at all times be a complete absence of noise and confusion; distances and intervals must be correctly kept from the unit of direction; wheels must be accurately made, words of command distinctly given, and cohesion and steadiness preserved.

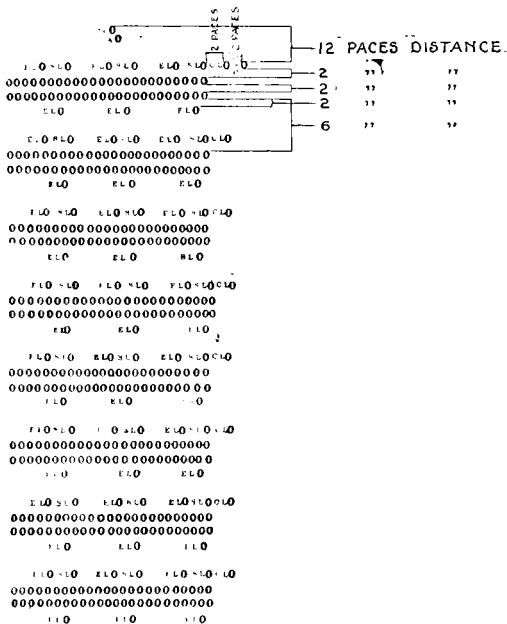
PLATE III.
 A COMPANY IN LINE
 3 SECTIONS OF 16 MEN EACH



NOTE—SERREFILES NOT SHOWN ON THIS PLATE.
 (THIS PLATE IS NOT TO SCALE).

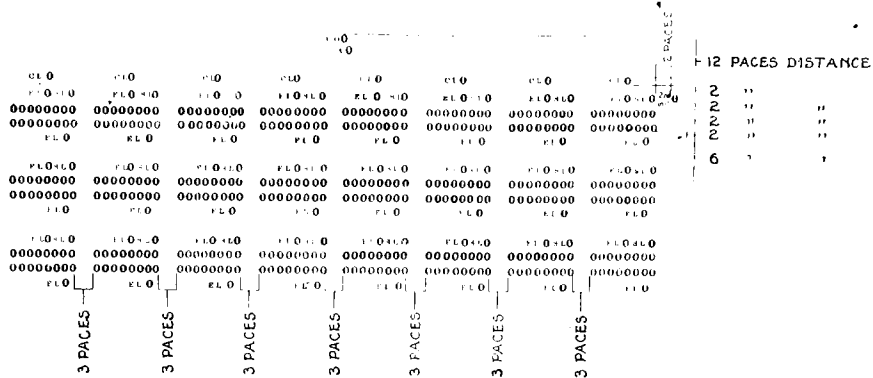
PLATE IV.

A REGIMENT OF 8 COMPANIES IN QUARTER COLUMN
EACH COMPANY 3 SECTIONS OF 16 MEN EACH.



NOTE — SERREFILES NOT SHOWN ON THIS PLATE.
(THIS PLATE IS NOT TO SCALE).

PLATE V
 A REGIMENT IN MASS SECTION FRONT
 8 COMPANIES EACH OF 3 SECTIONS OF 16 MEN.



NOTE.—SERREFILES NOT SHOWN ON THIS PLATE!
 (THIS PLATE IS NOT TO SCALE)

SECTION VII.—PRINCIPLES OF FIELD MOVEMENTS.

The relative positions of Sections and Companies may be changed at any time, provided Sections keep their Eights together and Companies keep their Sections together.

The leading Company in a Column is always the first Company, the next second, and so on throughout a Battalion. The Right Company of a Battalion in Line is always the first Company, the next Company the second Company, and so on. The same rule applies to the Sections of a Company, which are numbered within the Company as Companies are numbered within the Battalion.

The Directing Unit in "Line", "Line of Columns" or "Masses" is always the Centre or Right Centre unit unless otherwise ordered.

In Open Column the Centre of the leading body directs, in Quarter Column the Right of the leading body.

The Leaders of the Directing Unit dress on one another, the Leader of the directing unit leading straight in the desired direction, the other Leaders dressing on him.

In Echelon and when inclining, the flank Company on the hand towards which the movement is made is the Company of Direction.

In Direct Echelon, the leading body directs.

Before wheeling a column into line to a flank the Company Leaders, if not already there, should be brought to the flank on which the formation is to be made by the command "Company Leaders Right (or Left)."

In ordering any Formation towards Front, Flanks or Rear, the direction towards which the Formation is required must precede the order. Thus, if a Battalion is in Column of Sections and it is desired to form the Battalion in Line to the Front on the right or left of the leading Company, the word of command would be—"Line to the Front on the Right or Left", "Line of Company Columns to the Front on the Right or Left". If the formation is required to the Right or Left Flank the word of command would be preceded by the caution to the "Right" or "Left Flank" thus :—"To the Right Flank, Line of Company Columns".

In formations on the move in which Companies have to traverse unequal distances, the base body continues the pace, and the rest complete the formation at the double ; if, however, the Battalion is already moving at the double, the base body will check to the "quick" until the formation is completed, the rest continuing the pace, until aligned on the base body.

When movements are executed from the halt, the leader of the base Company will when necessary cause his Company to move up a sufficient distance to give the other Companies an opportunity to form.

In formations of Line or Line of Company Columns as a general rule, each Company will be halted when it arrives in line with the rear line of Companies already on the alignment, and will dress up. (Note.—It is easier to dress up than to dress back.)

Advances in Direct Echelon should, as a rule, be made from the flank which is secured or protected ; the exposed

flank being refused *i.e.* the last to advance ; similarly, retirements in Echelon should be made from the threatened flank.

A Line of Companies in Column Formation (Line of Company Columns) is a useful formation for field movements. The advantage of this formation is that it is easier to handle on broken ground than a deployed line, while still preserving the alignment ; it also enables Companies readily to turn obstacles and obtain such cover from fire as the ground affords ; men also can be easily extended when under fire or on bad ground.

Mass, on account of its combining flexibility with compactness, is a useful formation to employ in manœuvre when the adoption of a close formation is necessary,

If, in retiring before an enemy, it be wished to threaten his advance by constant rifle fire, the movement might be executed by successive Companies.

In order to prepare Battalions for working with others in Brigade, they may occasionally be exercised in movements they would have to perform in Brigade, the other Battalions being represented by flag, or skeleton Companies.

Brigade Movements.

Brigade Movements will be executed on the principles laid down for the Battalion.

It is a general rule that Battalions will be formed first, and afterwards brought up into the general alignment.

In Brigade Movements, great latitude is allowed to commanders in manœuvring, Battalions must move into the required position with rapidity, and not devote too much attention to details of regimental drill.

When the Brigadier's general order is given by signal only, Battalion commanders will repeat the signal, which will be at once acted upon by the Company commanders. If the brigade order is conveyed verbally, Battalion commanders will repeat it before giving the words required for the movements of their respective Battalions.

Company commanders repeat the Battalion words of command, as in Battalion movements, but do not repeat the general brigade order.

When the order of the Brigadier is not distinctly heard, or understood, each Battalion commander will conform as quickly as possible to the general movement.

PART II.—THE RIFLE AND ITS USE.



SECTION I.—CARE OF THE RIFLE.

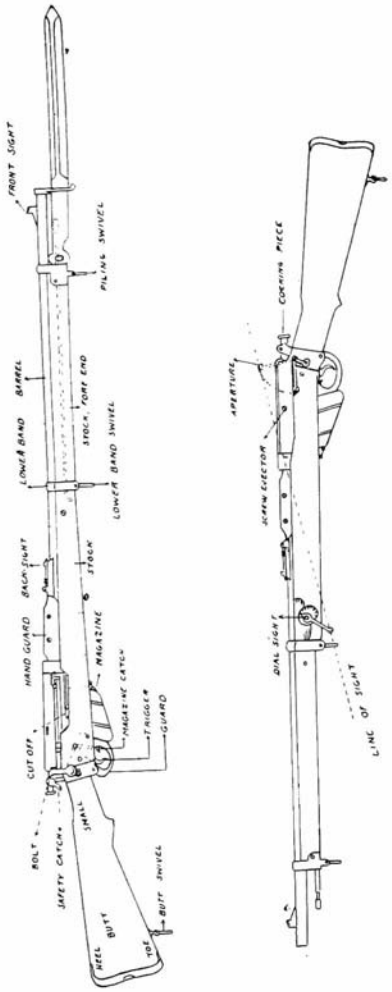
The soldier should handle his rifle with as much care as he does his watch, and specially he should see that the sights receive no treatment that will in any way derange or injure them.

It must be thoroughly cleaned the moment firing is finished. On no account must it be laid aside before this has been done. Water must never be used in the cleaning and no hard substance, such as emery or sand paper, should ever be applied to either the inside or the outside of the rifle. The proper material to be used in cleaning is rifle oil or vaseline applied with a piece of flannelette two inches by four inches in size, and the bore should be kept moistened with rifle oil or vaseline.

The rifle should never be used for carrying a weight; and the soldier should never take it to pieces. The sights should be carefully protected when the rifle is not in use. The main spring should never remain compressed except when the rifle is loaded.

For description and names of parts of the rifle, *See Plates.*

THE RIFLE



SECTION II.—RIFLE EXERCISES.

The positions, other than firing positions, in which the rifle is held are as follows :— *

The Order.

At "The Order" the butt rests on the ground, toe of the butt to the front, in line with the right toe, the barrel is pressed into the hollow of the right shoulder, and the rifle is held with the right hand near the lower band, thumb to the rear.

The rifle is held in this position when soldiers fall in with arms, and as much as possible when they are halted.

The Trail.

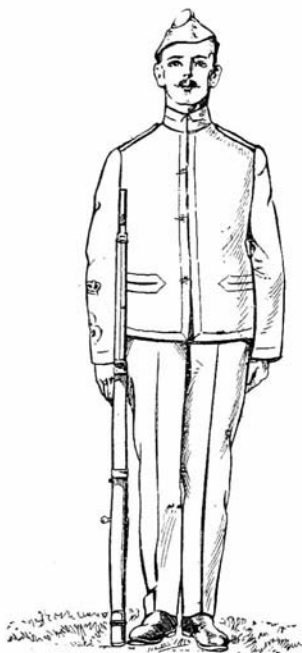
At "The Trail" the rifle is held horizontally at the right side, at the full extent of the right arm, muzzle to the front; the right hand grasping it at the "Balance."

When Troops move in open formation (extended order) they carry the rifle at "The Trail," as that is the most suitable for rapid motion from cover to cover.

The Slope.

At "The Slope" the rifle rests on the left shoulder, magazine outwards, muzzle pointing straight to the rear, the left hand grasps the butt, two first joints of the fingers outside of the butt, thumb about an inch above the toe, elbow close to the side, fore-arm horizontal.

* For Plates of the various Positions vide Instructional Placard for the Canadian Militia, 1903. "The rifle and its use."



THE ORDER.



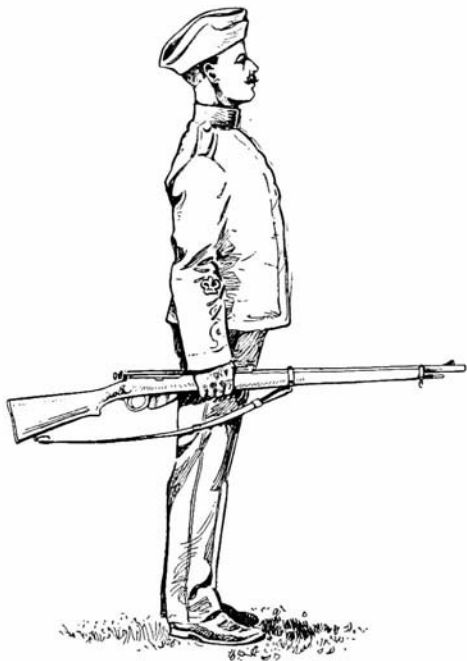
THE STAND AT EASE.



THE SLOPE.



THE PRESENT.



THE TRAIL.



THE SHORT TRAIL.



THE GROUND ARMS.

The rifle is held in this position when soldiers move in close formation, when passing or addressing an officer, and when standing preparatory to the "Present Arms."

The Present Arms.

At the "Present Arms" the rifle is held perpendicularly in front of the body, the left hand grasping it below the back-sight, thumb between stock and barrel; the right hand holding the "Small;" hollow of the right foot against the left heel.

This is the position of "Salute" or compliment. It is used on ceremonial occasions such as reviews and guard mounting, but never by the individual soldier except when on duty as a sentry.

The changes of the rifle from one position to another are made as follows :—

To Trail from the Order.

On the command "Trail—Arms" cant the rifle smartly upwards, grasp it with the right hand at the "Balance," and bring it to the "Trail."

When troops standing at the "Order" in open formation are ordered to march, they will, of their own accord, "Trail" arms on the first pace; and when moving at the "Trail" they will "Order" arms as they halt.

Short Trail.

At the Short Trail the rifle is raised about three inches from the ground, the barrel kept close to the shoulder.

Use of the "Short Trail."

If standing with ordered arms, and directed to close to the right or left, to step back, or to take any named number of paces forward, men will come to the "Short Trail".

To Order from the Trail.

On the command "Order—Arms," by a bend of the wrist bring the rifle to the perpendicular position and place it at the "Order"

To Fix Bayonets.

On the command "Fix—Bayonets," draw the bayonet with the left hand and fix it as smartly as possible.

To Unfix Bayonets.

On the command "Unfix—Bayonets," place the rifle between the knees, magazine to the front; unfix the bayonet, return it to the scabbard, and come to the "Order."

To fix bayonets when marching, bring the rifle to the "Trail," muzzle inclined upwards; draw and fix the bayonet with the left hand and then come to the "Slope."

To Slope from the Order.

On the command "Slope—Arms", cant the rifle up with the right hand, seize it with the left at the lower band, and with the right at the "Small," make a slight pause, then place it at the "Slope," make another pause, then move the right hand to the side.

When troops standing at the "Order" in close formation are ordered to march, they will, of their own accord, "Slope Arms," the first motion being performed with the first pace, and each succeeding motion as the left foot touches the ground.

To Order from the Slope.

On the command "Order—Arms," smartly sink the left hand to the full extent of the arm and seize the rifle with the right near the lower band; make a slight pause, then place the rifle smartly, but gently, at the "Order."

Troops moving at the "Slope" will, of their own accord, "Order" arms on the command "Halt."

To Present Arms from the Slope.

On the command "Present—Arms," grasp the "Small" with the right hand, make a slight pause, then carry the rifle to a perpendicular position in front of the body, sling to the left, left hand on the stock, wrist on magazine, fingers pointing upwards, and thumb opposite the mouth; make another pause, then come to the "Present Arms."

To Slope from the Present Arms.

On the command "Slope—Arms," bring the right heel forward in line with the left, at the same time place the rifle at the slope, the left hand grasping the butt; make a pause, then move the right hand to the side.

Changing Arms.

On the command "Change—Arms," the rifle, if at the slope, will be shifted to the opposite shoulder; if at the trail, to the other hand.

Securing Arms.

On the command "Secure—Arms," the soldier will place the breech of the rifle under the left arm pit, the knob of the bolt to the rear.

Slinging Arms.

On the command "Sling—Arms," the soldier will pass head and right arm between the sling and rifle, the sling passing over the left shoulder, and the rifle, muzzle upwards, hanging diagonally across the back.

Grounding Arms from the Order.

On the command "Ground—Arms," sink the body without moving the feet, place the rifle on the ground, magazine to the right, right hand in line with the toe, make a pause, then come to Attention. On the command "Take up Arms," men will take up arms and come to the "Order."

Rest Positions.

When men are in any of the firing positions, and it is desired to rest them, the command "Rest" will be given, when they will assume any position which gives ease. They may, if they wish, place the rifle on the ground, guard to the right.

Inspecting Arms on Parade.

On the command, "For Inspection—Port Arms," cant the rifle, muzzle leading, with the right hand smartly across the body, guard to the left and downwards, the barrel crossing opposite the point of the left shoulder, and meet it at the same time with the left hand close behind the backsight, thumb and fingers round the rifle, the left

wrist to be opposite the left breast, both elbows close to the body.

Pull out the cut-off, open the breech and grasp the butt with the right hand, immediately behind the bolt, thumb pointing to the muzzle.

When arms are inspected at the "Port" only, as in inspecting a section on parade, or for the purpose of ascertaining that there is no cartridge in the rifle or magazine, each man, when the officer or non-commissioned officer has passed the man next to him, will close the cut-off and breech, press the trigger, order arms, and stand easy.

On the command, "Ease-springs, Order Arms," close the cut-off and breech, press the trigger, and return the right hand to the small, then, holding the rifle firmly in the left hand, pass the right smartly along the rifle and seize it at the lower band and come to the "Order."

Examining Arms,

If it be necessary to examine arms, as before ball practice, &c., on the word "Examine Arms," the men will come to the Ready Position with the muzzle of the rifle so inclined as to enable the officer to look through the barrel, the thumb nail of the right hand being placed in front of the bolt to reflect light into the barrel.

The officer will look through each barrel to see that it is clean and free from rust. When the officer has passed the men next to him, each will close the cut-off and breech press the trigger, order arms and stand easy.

Ceremonial with the Rifle.

The men being at the order :—

Words of Command :—

“Fix Bayonets”

“Slope Arms”

“Present Arms”

“Slope Arms”

“Order Arms”

“Unfix Bayonets.”

SECTION III.—THE BAYONET.

To deliver a bayonet thrust:

The Section will be drawn up in line (Eights covering one another at 2 paces distance). On the word “For Bayonet Practice Prepare,” the rear Eights step back two paces. On the word “March” odd numbers of leading Eights step forward four paces, and even numbers of rear Eights step back four paces.

On the word “Engage,” bring the rifle to the “Ready” at the same time drawing back the right foot not less than 13 inches, standing upright and firm on the ground, knees well bent and forced apart. On the command “Thrust,” deliver the point as high as the breast by forcing the rifle out to the full extent of the left arm, at the same time incline the body well forward and straighten the right leg, both feet to be kept flat on the ground. Return to the “Engage.” *

*The thrust can be delivered in the direction of the object, down, up, right, left, etc.

On the command "Order Arms" come to that position, on the command "Reform Lines" the lines are reformed, on the command "March" the rear Eights step forward two paces.

SECTION IV.

RIFLE FIRING.—INSTRUCTIONS AND COMMANDS.

The most important part of the soldier's work in the field is good shooting. Victory mainly depends upon that. "Good shooting" does not mean rapid shooting, or the expenditure of a certain amount of ammunition in a given time. It means fire delivered with care, skill and good judgment, and under proper control—Fire Discipline. Without these there will be a regrettable waste of ammunition and the desired result—the outmatching of the enemy—cannot be obtained. The following instructions, then, should be studied and practised continually.

The term "fire unit" is applied to any body of troops, however small, whose fire is controlled by the executive command of a leader. It is never applied to a body stronger than a Company.

"Collective" fire means that which is delivered by a number of men collected together, their firing being controlled by a commander, and the term is applied to both Independent and Volley Firing. In both cases the distance and the object are named by the Commander. In Volley Firing the men of a unit fire together, and by word of command. In Independent Firing, after the command

“Commence,” each man fires in his own time, independently of the others, and continues loading and firing till ordered to cease.

“Individual Firing” is the term applied to fire which is not controlled or directed by a leader ; for example, that which is performed by the individual at target practice or when skirmishing.

The rates of fire are three—“Slow,” “Rapid”, and “Magazine,” and they apply to Independent Firing only. The rate of Volley Firing is at the Commander’s discretion.

“Slow ” fire is that which is ordinarily used by the soldier when firing independently. It should be delivered with the greatest deliberation, and with the most careful attention to aiming at a specially selected object.

“Rapid ” fire is the highest rate, which, having regard to accuracy, can be obtained when single loading is used, but it should only be employed when the objects are numerous and much exposed.

“Magazine ” fire should be employed only when the circumstances call for an extraordinary effort, and permit an overwhelming concentration of fire at comparatively short range.

The command “Magazine,” “Rapid,” or “Slow ” will when required, precede the order to open fire ; or it may be given to change from one rate to another.

With “Rapid ” and “Magazine ” fire quick aim is essential, but hurry, and consequent waste of ammunition, must be avoided, and the trigger must be pressed firmly, and without jerking, directly aim has been obtained, and not before it has been obtained.

“Cease Fire”.—A long, shrill whistle is the signal for ceasing fire. The command for it is “Cease Fire.” On this signal the rifle must at once be brought to the “Ready,” if not already there, and will be unloaded; and should be examined by the leader when time permits.

The Rifle at Fixed Sight.

The command “Fixed Sight” means that the firer is to set the sight for 500 yards; but it does not follow that the commander has judged the object to be at that distance.

Fixed Sight is used for any distance generally up to 500 yards, and is employed to avoid altering the sights when the distances are changing so rapidly as to prevent any attempt at greater accuracy. An example of such an occasion is when an enemy is advancing rapidly, and it is necessary to meet him with the largest possible fire in a limited time. With fixed sight aim should be taken at the feet of the object.

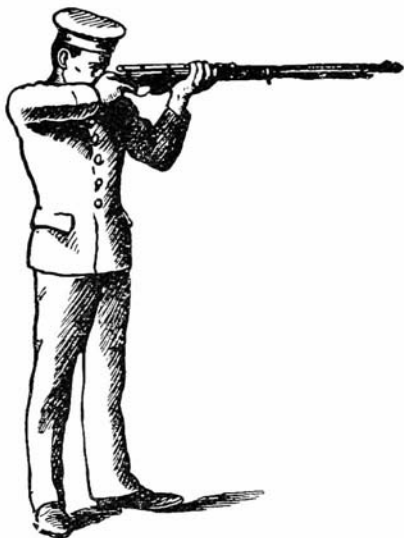
Firing—both Volley and Independent—is practised in four positions—standing, kneeling, sitting and lying down, and in each the rifle is held in two positions—the “Ready” and the “Present.” The “Ready” is the position in which the rifle is loaded and the sights adjusted; and the word “Ready” is used as the command to load. The “Present” is the aiming position; and in Volley Firing the word “Present” is the command to aim.

SECTION V.—RIFLE FIRING POSITIONS.

The following Plates show the position of the rifle at the "Ready" and "Present" when firing standing, kneeling, and lying down. The "Present" sitting is also shown.



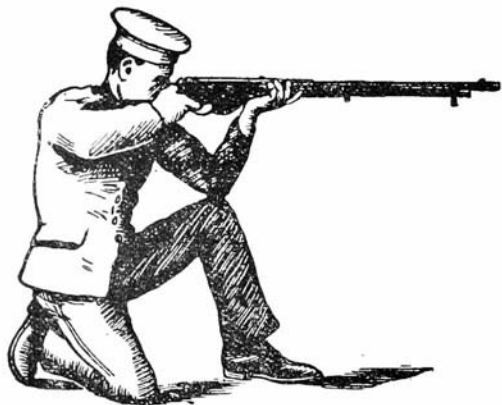
READY, STANDING



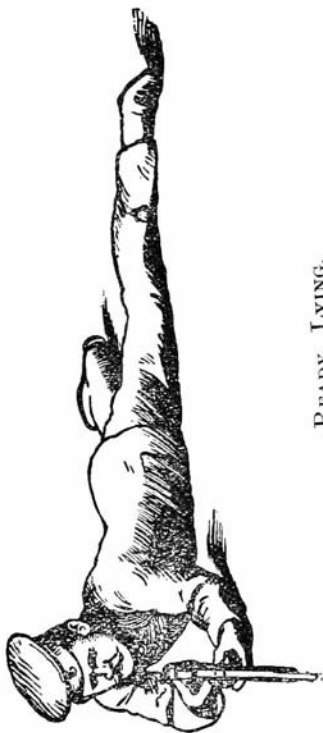
PRESENT, STANDING.



READY, KNEELING.



PRESENT, KNEELING.



READY, LYING.



PRESENT, LYING.



PRESENT, SITTING.

The detail and the commands for loading and firing in the various positions are as follows:—

On the command "Ready," bring the rifle to the "Ready" position, open the breech, put in a cartridge, and close the breech.

"Ready."

On being told the distance, adjust the sight accordingly.

"At — Hundred" (or "Fixed Sight.")

On the object being pointed out, look at it and prepare to aim at it, being careful to expose yourself no more than is necessary in doing so.

"No. 1 Target" (or some other suitable mark).

On the command "Present," come smartly to the "Present" and aim at the mark.

"Present."

On the command "Fire," press the trigger, make a momentary pause, and again come smartly to the "Ready" position.

"Fire."

The command "Fire" should be given smoothly but with decision, avoiding all hurry or hesitation. The commander must keep his attention fixed on his men, and give this command when he considers a sufficient time has been allowed to obtain aim and the men are steady. He must glance at the object when he gives the command "Fire," and should then watch the effect of the volley and correct the elevation and direction if necessary.

The commands "Volley, Ready, Present, Fire," should be repeated as may be considered necessary to secure handiness in loading and aiming; and recruits should frequently be brought back from the "Present" to the "Ready" by the command "As you were," in order to establish accuracy and facility in the motions, but not to ensure the motions being performed in exactly the same time by all.

Instead of the command "Volley," &c., the words may be—"Independent, At (object), At (distance), Commence," on which each man, in his own time and independently of his comrades, will load, aim and fire, and continue loading, aiming and firing until fresh orders are given, such as, "Cease Fire," "Unload," "Rest."

SECTION VI.—THE SAFETY CATCH.

To engage or disengage the Safety Catch, the commands will be as follows :—

“Raise—Safety Catch.” Place the right thumb on the cocking-piece, raising the Safety Catch with the second joint of the forefinger.

“Lower—Safety Catch.” Place the thumb on the Safety Catch and press it downwards.

The Safety Catch will be raised before movement, and by all men whose arms are loaded or magazines charged.

In the case of troops armed with rifles which are not provided with Safety Catches, the command “Unload” will be given before moving from a firing position.

SECTION VII.—MAGAZINE FIRE.

Charging and Uncharging Magazines.

On the command “Charge Magazines,” or “With (here state number) cartridges charge magazines”—Come to the “Ready” pointing the muzzle upwards. Pull out the cut-off (first pressing it downward with the thumb), open the breech, lay in the full number of cartridges (pressing each down with the thumb), and press in the cut-off.

Care must be taken that the pressure of the thumb on the last cartridge inserted is maintained until the cut-off has engaged over the cartridge.

Close the breech, press the trigger and bring the rifle to the “Ready.”

Then, “Order—Arms,” or other commands.

If desired, the magazine may be withdrawn for charging, the cut-off remaining closed.

Uncharging Magazines.

On the command "Uncharge Magazines"—Come to the "Ready," pointing the muzzle upwards. Seize the magazine with the left hand, place the thumb of the right hand on the top of the bolt, press the magazine catch with the forefinger, withdraw the magazine with the left hand, and place it, opening to the right flat against the under part of the fore-end, close to the guard, holding it with the fingers of the left hand, thumb over the bolt.

Then turn the barrel over to the left, right side uppermost, and with the thumb of the right hand push out each cartridge from its base, returning it to the pouch.

Replace the magazine, turn the barrel upwards and bring the rifle to the "Ready."

Then "Order—Arms," or other commands.

Notes on Charging Magazines.

Men should also be exercised in charging magazines in all positions, in the intervals between firing.

Accidents in charging magazines can only occur through neglect of the instructions. A fruitful source of danger is the neglect to maintain the pressure of the thumb on the last cartridge until the cut-off has engaged over it. This action must be specially watched in teaching recruits, and insisted on at all times.

Magazine Independent.

On the command "Magazine, Independent, Ready,"—each man assumes the position ordered, pulls out the cut-off and opens and closes the breech.

"At—(object)."

"At—(range)."

"Commence"—as in single loading. Other commands as required.

SECTION VIII.—NOTES ON FIRING COMMANDS.

The skilful control and direction of the fire are dependent on systematic accuracy of commands, and on the correct method of conveying orders, otherwise the intentions of the commander cannot be properly communicated, and mistakes and loss of power must result. Slowness in opening fire never arises from the completeness of orders, but rather from inaccuracy, uncertainty, and hesitation on the part of the leaders.

In applying the drills of the firing exercises, it must be kept in mind that whilst accuracy in words of command is at all times of the first importance, no more should be given than are actually required, and there should be no undue repetition. If changes are required in description of fire, in objective, or in sighting, such changes must be specified, but otherwise original orders stand good.

The following are examples :—

(a) A line of skirmishers advancing is ordered to open independent fire at 1,000 yards. The executive commands are :—

“Independent, Ready, At (object) At 1,000,—Commence.”

The subsequent command throughout the advance is “Commence,” change of sighting and objective being ordered only when required.

In such a case the firing positions are never named, each man taking up the position on halting, that is best adapted to the ground.

(b) A body firing volleys at 1,500 discontinues fire and is directed to reopen volleys at the same object at 1,400. The cautionary command is—“At 1,400 Continue.” The executive command is—“Ready, At 1,400, Present,” &c.

Although the principle of complete control must never be lost sight of, both leaders and men must be trained to think and act for themselves in situations where control of fire has ceased; or where it is evident that fire can be opened with effect, but where orders have not reached them. Exercises must be improvised having this training in view. By the gradual withdrawal of leaders the men should at times be left free to advance and keep up the fire without orders, their methods and fire action being subsequently criticised.

There are many occasions when it is impracticable to give the normal orders for fire. Thus, for example, a body of men under cover is required to take up an extended front under fire, and it is important that those first in position should open a rapid fire to cover the movement of the

remainder. In such conditions previous general instructions as to action must take the place of fire commands, and the leaders must subsequently resume general direction and control.

Again, the normal methods of passing orders and the complete detail of commands may occasionally be dispensed with, for the purpose of accustoming men to use their own judgment. Thus, fire at an object suddenly appearing for a limited time, should be opened by the nearest commander on the spot, the order "Independent, At (object)," being sufficient, the men being left to themselves as to position, sighting, use of magazine, &c., and their action being subsequently criticised.

SECTION IX.—PRINCIPLES OF RIFLE SHOOTING.

To acquire even a reasonable skill in shooting, attention must be paid to the established rules, as well as to practice. No one can become a reliable marksman on Service unless he understands the general principles which underlie scientific musketry, appreciates the difficulties under which firing has to be carried on, knows how these difficulties may be overcome or lessened, and is a good judge of distances. To assist the soldier to this knowledge the following elementary instructions are furnished :—

For the purpose of killing and wounding, a bullet is used. To drive the bullet to its mark—perhaps a mile away—a powerful explosive is employed ; but no explosive—however great its propelling power—is sufficient entirely to overcome the forces which act upon every body when it

is moving through the air, namely: gravitation, which draws the body to the earth, and air, which impedes its forward flight, and which, when in motion, (wind) changes its direction. Those forces prevent the bullet from going straight to its mark. The bullet does not follow the line of sight—the imaginary line running straight from the eye to the object—nor yet the line of fire—the imaginary straight line which is an indefinite continuation of the bore. On the contrary, the bullet, in its flight describes a curved line termed the “trajectory”. So if a bullet be propelled from a tube (barrel) which has its bore absolutely parallel to the line of sight, it must of necessity fall below the point of aim, or, which is the same thing, hit the ground somewhere between the firer and that point. To counteract these influences, then, it is necessary to arrange the “line of sight” so that it shall not be parallel with the bore of the rifle; in other words, to give elevation—that is, to elevate the muzzle in such a way as to direct the line of fire to a point above the mark—and at the same time not to interfere with the sighting or aiming. The further the object, the higher must be the elevation.

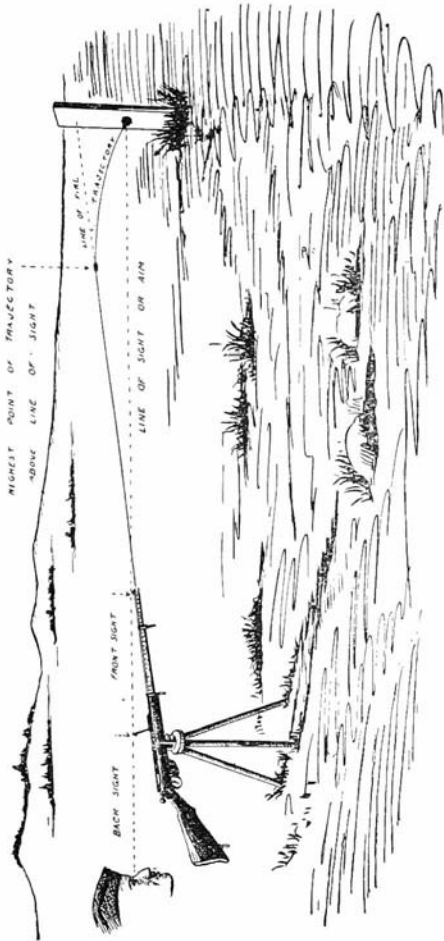
With the modern rifle this elevation is both secured and regulated by fitting it with an adjustable back-sight graduated to a certain number of yards and in some cases also a dial sight for the extreme ranges. Thus is accomplished but with scientific accuracy, the purpose which is sought when a person throws a ball or shoots an arrow from a bow. In order to reach the mark he gives the missile an upward tendency, and the farther the object the higher must the curve be above the line of vision.

It will readily be seen, then, how necessary it is to exercise care in adjusting the sights, and to alter the adjust-

ment at every change of distance. Without such adjustment accuracy of fire is impossible, and the soldier, in such a case, might as well be armed with the old Brown Bess of one hundred years ago. Indeed, careful adjustment of the sights is no less important than the loading and aiming. And it must be understood that "Adjustment of Sights" does not mean merely changing the slide from one line to another on the leaf. It means placing the slide at the number which corresponds exactly to the known or the supposed distance of the object.

In adjusting the sights it must not be forgotten that if a wind is blowing from the front the bullet is thereby impeded, and that the elevation must then be for a greater distance than the actual distance, and that if it is blowing from the rear, the speed is increased, and then the elevation must be for a less distance than the actual distance. If the wind is blowing from the right, aim must be taken to the right; if from the left, aim must be taken to the left.

The foregoing remarks on elevation point to the need for knowing the distance, and for learning how to judge distances.



SECTION X.—JUDGING DISTANCES.

Distances may be ascertained by means of a range finder and by trial shots or volleys. As time and circumstances do not always permit of these methods, it is desirable that the soldier should be trained to judge for himself; and especially should officers and non-commissioned officers who have to direct the firing strive to acquire proficiency in rapidly and accurately judging distances.

It is difficult to lay down definite rules for the judging of distances. It should be sufficient to say that a person may soon become skilled in the knowledge if he will take a real interest in it and devote a few minutes of each day to it for some little time. He should commence with short distances which can be easily measured and, therefore, easily proved; and he should not attempt long distances till he has mastered the shorter ones. The readiest way of measuring is by pacing. Therefore by selecting an object, and then counting the paces taken to reach it, he may learn much in going to and from his place of employment and in his walks for recreation. After a man has mastered the shorter distances, the knowledge and the practice may easily be extended to the longer ones.

The following are the Military terms applied to different ranges :

	RIFLE. Yards.	FIELD ARTILLERY. Yards.	HEAVY BATTERIES. Yards.
Distant...	3,000 to 2,000	6,000 to 4,500	10,000 to 6,000
Long.....	2,000 to 1,400	4,500 to 3,500	6,000 to 4,000
Effective..	1,400 to 600	3,500 to 2,000	4,000 to 2,500
Decisive...	600 and under	2,000 and under	2,500 and under

Judging Distance by Sound.

The system of judging distance by sound is based on the rate at which sound travels. For practical purposes sound

may be said to travel at the rate of 1,100 feet a second, i. e., 1,100 yards in three seconds. Between the flash (or smoke) of a rifle or gun, and the sound of the report, a certain time elapses. If this period of time be carefully noted in seconds, the distance the sound has travelled can be calculated. To reckon the time between the flash and the report, it is necessary to train men to count mentally according to a fixed cadence, namely, eleven beats in three seconds. Each beat will represent one hundred yards.

This method of judging distance is valuable at night when the flash of a gun or rifle is visible, and by day when engaged with an enemy who uses black powder. It will be taught to all recruits, and trained men will be sufficiently practised to keep them efficient.

Judging Distance by Sight.

It should be noted that an object appears nearer than it really is —

1. When the sun is behind the observer, or generally in bright light.
2. When its colour differs from that of the background.
3. When seen over water, snow, or level ground.
4. In the clear air of mountainous localities.

Objects appear further off:—

1. When the background is similar in colour.
2. When seen over a valley or undulating ground.
3. When the object is in the shade.
4. When seen in a failing light or through a mist.
5. When seen but partially.

Judging Distance by Shots or Volleys.

This method is of value when the ground in the vicinity of the objective is of a nature to show the strike of bullets

and when there are no very distracting influences such a effective opposing fire.

Trial shots or volleys will be fired with the elevation for the estimated range, the results being watched with field glasses.

The distance and the nature of the ground must determine the volume of fire required and the point on which it should be directed. This point may be the actual objective, or any ground in its vicinity which is more suited to show the strike of the bullets. The greater the difficulty in observing the fire, the larger must be the number of rifles used.

In firing trial shots or volleys at long ranges it is difficult to determine the actual distance of the strike of bullets over or short of the object; the sight should therefore be usually raised or lowered not less than 100 yards at a time until the object is enclosed between two volleys, the one over, the other short. The next volley should be fired with the mean of the two elevations, and any slight correction be made subsequently.

Rules for Aiming.

1. The back-sight must be perfectly upright.
2. The left eye must be closed.
3. Aim must be taken by at once aligning the sights on the mark, the tip of the fore sight being in the centre of and in line with the V or shoulders of the notch of the back-sight; with the bead sight, aim must be taken by at once aligning the sights on the mark. The whole of the bead but no portion of the neck should be seen in the centre of the V.

4. The trigger must be pressed by a squeezing motion of the fore finger and thumb, without any movement of the hand, eye, or arm, until the spring is released, and the breathing must be restrained when aiming and pressing the trigger.

SECTION XI.—SNAP SHOOTING OR FIRING AT MOVING AND VANISHING OBJECTS.

After having become fairly proficient in shooting at stationary marks, men should practise firing at moving and vanishing objects, that is, in rapidly covering a mark and at once pulling the trigger. This should be practised from cover, the man rising and exposing himself for not more than four seconds while aiming and firing.

Theoretical and practical instruction in these exercises will be afforded to all recruits during the firing exercises. Trained soldiers must be exercised as often as is necessary to keep up efficiency.

Firing at Moving Objects.

Men must be instructed to aim first on the object, then following it sideways to carry the aim a little in advance; how much in advance depends on distance, rate of movement, and on the direction taken by the object. In aiming at an object moving directly or obliquely towards or away from the firer, allowance for elevation must usually be made by aiming lower or higher.

The following may be taken as a general guide in firing at moving objects :—

The bullet travels about	500	yards	in	1	second
“ “ “ “	1000	“	“	3	“
“ “ “ “	1500	“	“	5	“

Aim should be taken :—

About 1 foot in front, per	100	yards,	at	a	man	walking
“ 2 feet “	“	“	“	“	“	doubling
“ 3 “ “	“	“	“	“	“	at a horse trotting
“ 4 “ “	“	“	“	“	“	galloping

Men must be practised in aiming higher and lower, without moving the slide, on objects advancing and retiring.

Firing at Vanishing Objects.

In aiming at an object which appears and disappears, the rifle should be brought to the shoulder on its appearance, and aim taken as rapidly as possible on the lower part.

Experience in South Africa showed snap shooting to be a most effective mode of firing in the field. An expert game shot is nothing else but a first-class snap shot. Men should practise in peace what they would have to do in war. For example, a patrol on service, all expert game or snap shots, meet a patrol of an opposing force, who are not expert at snap shooting. The advantage of attention to these matters will be evident when both patrols answer their names at roll call that night. *Indeed it is quite possible that the patrol which was learning*

to soldier in war time instead of in peace time may have been completely wiped out even before they got their rifles up to the Present.

SECTION XII.—SKIRMISHING.

Signals.

Signals are to be employed in manœuvre as much as possible, the whistle being used to attract attention. When drilling by signal the Instructor will see that soldiers look at once to him on his whistle sounding and remain looking at him until he has given his signal.

Advance or Forward—Arm swung over the shoulder from rear to front, finishing with the hand pointing to the front.

Reinforce—Arm swung from rear to front as in under-hand bowling.

Retire—Arm circled above the head.

Halt—Arm raised perpendicularly above the head with the hand open.

Incline—Body turned in the required direction and arm extended horizontally at the same time.

Change Direction or Right (or Left) Wheel. Circular movement of extended arm, horizontally in line with the shoulder, in the required direction, swinging the body round at the same time.

In order to prevent the *Change Direction* being mistaken for the *Advance* it is important that the hand should be kept level with the shoulder in the *Change Direction*.

Quick Time—Arm raised in a line with the shoulders, elbow bent at right angles, fore-arm vertical, hand clenched.

Double—Clenched hand moved up and down, between thigh and shoulder.

**To extend.*—(a). Extend both arms horizontally in line with the shoulders, hands open (to indicate an extension) then drop them to the sides. (b) Raise the right or left arm in the direction to which the men are to extend. If the men are to extend outwards, *i. e.*, from the centre, raise both arms horizontally in line from the shoulders.

To close.—Raise both arms horizontally bringing them together in front of the chest. Then indicate the direction as in (b).

Lie Down.—The open hand lowered a few times, from the height of the waist towards the ground.

Rise.—Two or three slight movements of the open hand (palm uppermost) upwards.

Enemy in sight.—*In small numbers.*—Rifle held horizontally over the head.

“ “ *In Force.*—Rifle raised and lowered rapidly.

No Enemy in sight.—The rifle held up perpendicularly at the full extent of the arm, muzzle uppermost.

Running short of ammunition.—Rifle perpendicular, butt uppermost, swung with a pendulum motion from side to side.

*The interval to which extension is to be made must be ordered by word of mouth.

The Whistle.

The whistle is to be used only to attract attention to orders or signals about to be given. To this order there is only one exception, namely, a long shrill whistle, which means *Cease Fire*.

War Calls.

(1) Charge. (2) Alarm.

No other calls are to be used. For the *Cease Fire* the whistle only is to be used.

Skirmishing Instructions.

Skirmishing is a method of advancing on an enemy in an extended or open formation. Each individual acts and thinks for himself when skirmishing, but also co-operates with his comrades as part of the military machine. It is essential that in this part of his training the intelligence of the soldier should be developed by every possible means, and that individual action, subject to the control and general directions of the troop commanders and leaders of Eights, should be sedulously encouraged.

Skirmishing is the all-important formation in warfare against a well-armed enemy. The attack is generally carried out by successive lines of skirmishers, who work forward, as far as possible under cover, to decisive range (600 yards and under), then gradually merge into one another and push forward until they form a strong firing-line, enveloping, or partly enveloping the enemy's position at the closest range it is possible to attain. Skirmishers are also employed to draw off the enemy's attention from the point where the real attack is to be pressed home.

Skirmishers move in single line with varying intervals, arms at the trail.

Regular dressing, and keeping step, are to be dispensed with in skirmishing.

Skirmishers may move at the double, in quick time, or even by creeping along the ground, but the pace should invariably be as rapid as possible consistent with accurate shooting.

At drill, skirmishers will always extend at the double.

In all skirmishing exercises the instructor will point out the known or supposed position of the enemy, and will see that all subordinate commanders act throughout with reference to this position.

Although words of command are laid down for preliminary drill purposes, it is to be distinctly understood that in skirmishing all orders, as far as is possible, are to be conveyed by signal only. At the preliminary drills, although words of command may be used, they are invariably to be preceded by the whistle, and to be accompanied by the corresponding signal. The instructor must see that every man looks to him at the sound of the whistle. He will give neither command nor signal until they do so, as it is of great importance that in the field all should at once look to the commander on the whistle sounding.

Course of Skirmishing Training.

The course of training should be divided into two parts:—

(a) Preliminary training.

This will be carried out on level ground as a drill, intervals being generally maintained, and all movements, commands, signals, &c., being in strict accordance with these instructions.

(b) Practical application of the principles inculcated at drill to the various duties skirmishers may be called upon to carry out in the field.

Skirmishing Drill.

Extending.

The extension may be made from any part of the Eight, Section, Company, &c., and from any formation, and any interval between men may be ordered.

When in Column of Fours or Twos if a single line of Skirmishers—say three sections—is required to the front in extended order without delay, the word of Command would be “First, Second and Third Sections, Single Line to the front at — paces interval.” On this word, the leading Section front forms in single line on the right and left of the heads of Eights, the rear Sections are led into their places as laid down for increases of front, Part I, at the same time forming Single Line to the front at the interval named. When in Column of Fours or Twos it is desired to form a line of Skirmishers to a Flank, Sections will form in Single Line to the named Flank at the named interval between men. As leaders will not be in front when Skirmishing, a man must be named to direct.

On the word “Close” men will close on the centre, right, or left from extended order.

Movement of Skirmishers.

On the command "Advance," the men, if at the halt, will spring to attention, and step off.

On the command "About," the men, whether at the halt, or on the march, will turn about and step off.

The instructor will see that the man or Eight ordered to direct moves on the given point.

Skirmishers Movement to a Flank.

On the command "Right (or Left) Incline," the line will incline and move in the direction indicated, resuming the original direction on the word Advance.

Skirmishers Changing Direction.

On the command "Change Direction Right (or Left)," the man on the flank named will turn in the required direction (which will be indicated by signal), and if on the march, will continue to move on in quick time, the remainder gaining their places in double time. Each man will halt, or break into quick time as he arrives on the new alignment, and the directing man will be given a fresh point to march on.

Relieving Skirmishers.

In relieving a line of skirmishers, when halted, the new line extends, if possible under cover, advances up to the old line, and lies down in the intervals. The old line then retires, under the protecting fire of the new line, and closes when it reaches cover or halts at a suitable distance in rear.

In relieving a line of skirmishers while retiring, the new line extends a considerable distance to the rear, and each man selects a good position. The old line doubles through the new, and closes when it reaches cover, or halts at a suitable distance in rear.

Skirmishers Halting.

When the halt is ordered, skirmishers will invariably face the enemy, real or supposed, and lie down, or if at preliminary training, stand easy.

Nature of Fire to be employed by Skirmishers.

Independent fire (see Rifle Firing Instructions and Commands) will generally be employed by skirmishers. Volleys should seldom be employed except as a means of finding the range, or at large and well defined targets.

The leaf, but not the slide, of the backsight should be put down before an advance or retirement.

Skirmishers Changing Direction when Firing.

On the order or signal "Change Direction" the skirmishers on the right or left will turn in the direction indicated, lie down and continue firing. The remainder will run or creep up, one or two at a time, to the new alignment, lying down, and firing as they reach their places.

Practical Skirmishing.

The preliminary training having been completed, on perhaps limited ground, the practical application of the work will be taught over an extended and if possible rough country.

Commanders of Sections should be trained to work on their own judgment, any mistakes being pointed out afterwards by the Instructor.

Skirmishing Intervals.

These depend on the nature of the ground and the object of the operation.

It must be remembered that over-extension means loss of control and loss of fire power.

Over-extension is dangerous where counter attack is probable, or in close country.

The length of the front must always be carefully considered, beforehand, and this length of front will be a guide to the interval between skirmishers.

Practical Skirmishing Instructions.

Commanders of units skirmishing should not expose themselves unduly. Every leader when he receives an order by signal or word will acknowledge it by a salute with the hand.

Commanders of Sections will explain before the men advance the objective of the manœuvre and how they intend to reach it. They will point out the target and control expenditure of ammunition and inform the Company Commander when it is running short. Eight Leaders will report all signals and see that orders are passed along the line, and the orders of the Section leader are obeyed.

Casualties.

In order to obtain service conditions Company, Section, and Eight Leaders should frequently be ordered to fall out, the command being taken by the next seniors, the work meanwhile proceeding without any confusion.

Skirmishers will reach a decisive range often by gaining ground a few men at a time, or by a succession of advances from cover to cover. Extensions should be made under cover if possible. Exposed ground should be crossed by rushes of 80 to 100 yards—men should lie down motionless until they get their wind, if in the open—Eights and Sections keeping together if possible. Men will conform to movements of their leader, if he halts they will halt, etc., and contiguous Sections or Eights cover one another's advance by firing. Bayonets will be fixed at about 350 yards.

Skirmishers assembling after Dispersal.

After the assault Companies, Sections, Eights, etc., should be taught to assemble on their Leaders.

Reinforcing.

It is inevitable in the heat of battle that Battalions, Companies and Sections will become mixed up. It is of very great importance to accustom the men to such conditions, and to make them understand that if they use their intelligence and their eyes, confusion may be readily reduced to order. When the men have mastered the preceding exercises they should be practised in reinforcing to the front. For this purpose, two Sections may be extended in two single lines. On the word or signal "Reinforce," the rear Section will advance as directed by the commander,

and occupy the intervals in the leading line of skirmishers, no regard being paid to the order in which the men may place themselves. But great attention should be given to the following :—

The men, whether they received orders or not, should at once look for the nearest Section Leader, and place themselves under his control on arriving at the firing line. Eight Leaders should take charge of the men as they come up, and point out to them the Section Commander.

Skirmishers should be ordered to re-organize when the cover is sufficient to afford a favourable opportunity, and the men should always be on the look out for such chances to rejoin their Eights, Sections, etc.

Troops should also be practised in reinforcing the line by prolonging it to the right or the left. The word of command (or signal) would be “Reinforce on the Right (or Left),” on which the Section in rear will advance as directed, by its commander, and prolong the leading line to the right or left.

Commanders should improvise methods in order to train their men to meet quickly any particular exigency.

Some of the following methods are suggested :—For instance, when in close order it is desired to occupy a position rapidly, show the flank men where the flanks are to go, the centre man where the centre is to go, then give the command “Outwards Extend,” the Eight or Section will double out, open like a fan, and dividing the distance will occupy the position indicated.

To change direction, or occupy a position rapidly, when extended. “Line that bank, (ditch, cutting, rise, etc.) Double.’

If in close order “Line that bank, etc., extend.”

Notes for the Skirmisher.

Alertness.

Men must always be on the look-out for the enemy, for orders and signals, and must be in readiness to move like a flash.

Taking Cover.

An officer or soldier showing himself may not only cause the loss of his own life, and the lives of others near him, but may also betray a position, or spoil an outflanking movement. Men must always look out for cover ahead, the slightest fold in the ground, a ditch, bank, tree, etc. They must never be exposed on the sky-line or against a background that shows a man up. In using cover they must always fire from the bottom and right of it, not from the top or left.

In scrub, long grass, &c., which only gives cover from view, they must take special pains not to attract attention.

Careful firing.

They must fire deliberately and never waste a cartridge.

They must never fire unless the mark is seen.

They must always try to get into a position where the mark can be seen.

A Section or Eight should try to concentrate its fire

The enemy's scouts and leaders must always be picked off.

Not to crowd.

It must be remembered that a bunch of men make a good target. The interval from the directing man must be kept.

Quickness in Reporting and Passing Orders.

Men must at once report to the leader, any movement of the enemy, and any movement or signal of their own units.

Men must pass orders or information along the line clearly, intelligently, and at once, without unnecessary shouting.

Combined action

Is always more likely to be successful than disjointed individual efforts.

Men must keep the object in mind and co-operate with the rest of the Company or Section to attain it.

SECTION XIII.—*SHELTER TRENCH EXERCISE.

Instruction of Troops.

Troops should be practised in the use of the pick and shovel, until they can excavate without difficulty the tasks allotted to them.

* When constructing trenches by night tracing tape are used to show the line of the proposed trench.

Tools.

Each man will usually require a pick and shovel, but it may sometimes be desirable to allot two men to each task, in which case one man will carry the pick and the other man the shovel.

The tools will, as a rule, be placed in heaps on the ground, picks in one heap, shovels in another. The working party, with arms slung, will pass between the heaps in Columns of Ones, each man taking a pick in his left hand and a shovel in his right as he passes the heaps. Tools should be carried at the trail, point of the pick down, and the hollow of the shovel towards the thigh.

It is important that men should be taught to handle their tools without noise. In the event of a working party turning to the right, left, or about, the handles of the tools will before turning be brought into a vertical position by lowering the iron part of the pick and raising the iron part of the shovel, resuming the trail when the turn is complete. When marching in Columns of Ones the handles will incline outwards.

Extension.—Working parties may be extended by the following methods :—

The party will be extended to such interval as may be required, about 12 paces in rear of the proposed trench. It will then be advanced and halted, while an officer paces along the front, halting at the limit of each man's task.

The men will, without word of command, turn about and take four paces to their rear, ground arms, take off their accoutrements, and lie down until ordered to begin work.

To avoid accidents every man must commence digging on the left of his task, and work from left to right.

Filling in Trenches.

It is recommended that the trenches should never be filled in on the day on which they have been made, but that a fatigue party should be sent out later for the special purpose of levelling them. In one hour a man should be expected to fill in about 40 cubic feet.

For information on Elementary Field Engineering *vide* the Instruction Placards issued to the Canadian Militia 1903.

PART III.—ORDERS

No Military subject is of more importance than the framing and communicating of orders.

To get one's intentions and plans into the minds of those who are to interpret and carry them out, with the least probability of mistake, is an art which requires both study and care.

The neglect of this art has led in many cases to serious confusion and even disaster. The following instructions should, therefore, be studied with more than ordinary attention.

SECTION I.—ORDERS, DIFFERENT CLASSES OF.

Orders on service may be classified as follows :—

- (a) Standing Orders.
- (b) Orders of the Day.
- (c) Operation Orders.

Each class of Orders should be framed as a separate document, and filed separately on receipt.

An Order states at the beginning by whom it is issued, and its nature, *e. g.*, "Army Standing Order by G. O. C. in the field," "Orders of the Day by G. O. C. 2nd Division," or "Outpost Orders by G. O. C. 4th Brigade."

Orders are signed "By Order" by any authorised Staff Officer. Each subject treated in Standing Orders, in Orders of the Day, and, whenever time permits, in Operation Orders, will be briefly given in the margin.

Standing Orders are issued on mobilization, and subsequently from time to time during a campaign. Their object is to save frequent repetition in the Orders of the Day, and they vary considerably according to the nature of the operations to be undertaken, and the country where these are to be conducted.

Every Commander will frame Standing Orders for his own command.

Standing Orders affecting points of discipline will be read to the troops at least once a month.

Officers Commanding will ensure that units and officers joining their commands are made acquainted with Standing Orders.

Orders of the Day are similar in nature to the Station and Garrison Orders issued in peace. They are chiefly concerned with matters of routine.

Operation Orders deal with operations in the field. It is, consequently, very important that all concerned should have mutual knowledge of one another's task. One Order, embodying the different instructions for all portions of the force will therefore be issued as a single document.

In framing Operation Orders the following rules are to be observed :—

The heading of the Order will contain the nature of the operation and the force to which it applies, *e.g.*, "Outpost Orders," "March Orders," "Attack Orders," &c.

SECTION II.—OPERATION ORDERS— POINTS TO BE DEALT WITH IN.

The undermentioned points will usually be dealt with in the sequence given.

1. *The latest information* regarding enemy and neighbouring friendly troops (as far only as it affects the subordinate leaders).

2. *The aim and object of the operations*—The intention of the commander and the action to be taken by other portions of the force. (These need only be communicated as far as they affect the work immediately in hand and facilitate intelligent co-operation).

3. *What is required of the unit or units*—This must be briefly and concisely stated, but no doubt should be left as to the wishes of the commander from whom the order emanated.

The subordinate leaders must have instructions on those points that they cannot individually or independently arrange for the attainment of a common object. Instructions for a detached body likely to be thrown on its own resources for some time, would be more an expression of the views and wishes of the commander than orders in the strict sense of the word.

The name of the commander of a detached force will always be given in the order.

4. *The place where the Commander will be found*—This enables reports to be sent with minimum loss of time and danger of miscarriage.

What Orders should not Contain.

Unnecessary Detail.—The subordinate should know *what* he has to do, but he should not be told *how* he is to do it.

Vagueness of Style or Expression—Which leaves the subordinate uncertain as to what his leader *really means*.

Orders, Method of Communication.

Except in cases of urgency, Orders will be issued through the usual official channel—thus, Orders to a Battalion should go through the Adjutant. If this is impossible, the sender, and when possible, the recipient of the Order, should inform the officer in charge of the usual official channel of what has been done, so as to avoid confusion.

Orders will usually be issued daily at fixed hours. At these hours Commanders will send an Officer to the Headquarters of their superior. This officer will not only receive orders, but must also be able to give all necessary information regarding the command to which he belongs, *e. g.*, Strength of Units, amount of Food, Ammunition, &c. Watches will also be compared on this occasion.

If for any reason detailed orders cannot be issued till late in the evening for early operations on next day, great inconvenience will be prevented by the issue of a preliminary order notifying the time of assembly or of starting. The preliminary order should state when the complete orders will be issued.

If any important operation has to be carried out, the Commander should not be satisfied with merely sending out orders, but should assemble the officers commanding the higher units in the presence of his Chief Staff Officers and as a supplement to the orders explain to them clearly and simply his intentions, using his map in doing so ; these officers will in their turn communicate their instructions to their subordinate leaders, also using their maps in doing so.

When giving orders to their commands in the Field, Commanders should always especially ensure that the orders they give are noted by a Staff Officer, so that in case they are killed what has been done and what orders units have received may be known to their successors in the command, thus enabling operations to be continued without misconception as to what is going on. Likewise no change should be made by a Brigadier, O. C. a Battalion &c., in any order already given by him without informing the unit commander affected by it. Thus, should a Brigadier give any orders to a Company personally, he ought at once to acquaint the C. O. of the Battalion affected, that he has given such order, but it is wise as much as possible to avoid giving orders except through the regular channel.

Officers commanding Brigades and Battalions must remember that they cannot work without tools, and that they should have following in rear of them, in addition to their Staff Officers, enough orderlies to communicate with Battalions or Companies. If they go forward to reconnoitre a position they would creep forward with possibly only a guide and a Staff Officer, leaving the remainder of their Staff a short distance in rear out of view of the enemy, so

as not to attract attention, but near enough always to have the mechanism of command at hand.

Officers Commanding Brigades or Battalions should be accompanied by one or more signallers who will march where they can be conveniently got at.

The Spirit of Orders to be Acted on.

Having described various kinds of Orders and the machinery for their communication, it is fitting to remark here that it is the spirit of all orders that must receive the most attention from Leaders, etc. Thus, Leaders must train their subordinates not only to work intelligently and resolutely in accordance with brief and often very general instructions, but also to take upon themselves, whenever it may be necessary, the responsibility of varying to some extent the orders they may have received, if the exigencies of the Service require it, subject however to the following conditions :—

A formal order is never to be departed from either in letter or in spirit, so long as the officer who issued it is present and can see what is going on ; or, if he cannot see what is going on, provided that there is time to report to him, without losing an opportunity or endangering the command.

A departure from either the spirit or the letter of an order is justified if the subordinate, in assuming the responsibility, is conscientiously satisfied that he is acting as his superior would order him to act if he were present.

If a subordinate, in the absence of a superior, neglects to depart from the letter of his orders, when such departure is clearly justified by circumstances, and failure ensues, he will be held responsible for such failure.

Method of Framing Orders and Reports.

The following points for officers when writing Orders, Reports, or other messages in the field are to be borne in mind, as they are of the first importance.

Orders may be *verbal* or *written*.

Whenever time and circumstances allow, *important messages should be in writing*. The bearer of a written message should know its contents in case he loses or has to destroy the despatch. When a verbal order is given the bearer must be made to *repeat it* and *understand its nature*.

The Field Message Book and envelope should be used when obtainable. Clear writing is of the first importance.

Messages will be divided into paragraphs, which will be numbered. The Message must be followed by the Place, date, hour and minute of issue. It often occurs that there are two or three places of the same name in a locality. Make it clear which place you address from or refer to. The date should be written thus: "15 Oct., 1902." In naming a night both days should be given, thus: "night, 31 Oct.—1 Nov." A.M. or P.M. should always be added to time of day, thus: "12.05 A.M., 12.05 P.M."

The hour of 12 to be followed by "noon" or "midnight," thus: "12 noon," "12 midnight."

All names of places must be written in block capital letters, thus: "TORONTO," and spelt same way as in map in use.

The words "right," "left," "in front of," "behind," should never be used, but points of compass substituted: thus: "N.W., S.E., &c."

In describing rivers, "right" or "left bank" are permissible. (Right bank of river is that bank which is on the right when looking down the stream.) Roads should be described by the names of two places on them.

If the message refers to troops reaching a place at a certain time, it is assumed the head of the main body is meant, unless otherwise stated.

The writer, having finished his message, should read it through carefully and ask himself if it is clear, and in the case of an order, whether it is calculated to influence the recipient in the way only that is intended.

The message must be clearly signed by sender, stating rank, appointment, and force he is with. It closes with the number of the message, name and title of person addressed, and the place from whence the message is sent.

* Message, Field, Example of.

The following form of a Field Message is given as an example.

"(1) about 50 of enemy's Cavalry 2,500 yards north west of SMITH'S FARM.

(2) Country people say they are part of 18th Cavalry, Simpson's Brigade.

* NOTE—All messages should be numbered consecutively to each addressee and copies kept.

(3) *Several half packed saddles on the ground at SMITH'S FARM marked "18th Cavalry," enemy evidently surprised.*

(Signature) R. BROWN, *Lieut.,*
2nd Fusiliers.

Commanding Right Advanced Party,
SMITH'S FARM.

*No. IV.

From LT. BROWN. To *O.C. Advanced Guard.*
Place SMITH'S FARM. Place
Despatch 15 *Dec., 1902,* Receipt 15 *Dec. 1902,*
11.55, A.M. 12.15 P.M.

FORM OF ENVELOPE.

ENVELOPE TO BE RETURNED TO ORDERLY.

Despatched 15 <i>Dec., 1902,</i> 11.55. A.M.	Rate.
Received 15 <i>Dec., 1902,</i> 12.15 P.M.	6 miles. <input checked="" type="checkbox"/>
	9 miles. <input type="checkbox"/>
	Full speed. <input type="checkbox"/>
Signature of Receiver, <i>H. Jones, Capt.,</i> <i>2nd Fusiliers.</i>	
To <i>O. C. Advanced Guard,</i> <i>4th Brigade.</i>	

*The above message being numbered IV, implies that Lieut Brown has sent three previous messages to O. C. Advanced Guard.

Transmission of Messages.

An important message should be sent by two or three messengers, starting at different times and by different routes.

The sender will instruct messenger as to speed, route, and where to return.

Commanding officers en route will assist in forwarding messages by all means in their power.

A messenger will always be given a receipt, noting date and hour of receipt by the recipient.

SECTION III.—REPORTS.

The general instructions regarding orders apply equally to Reports.

A Report should be short, not a word too much or too little, and should, if possible, be accompanied by a rough sketch.

It should contain as much information as possible, the writer remembering that his object is to get into the mind of some one the true state of matters regarding that which the writer has seen but the recipient of the message has not seen.

The Report should be clearly written. The receiver may have to read it by the light of a fire or bad light.

The Report should contain facts, not fancies. If you report anything that is only second-hand or hearsay, say so.

The following Points for Field Reports embrace the subjects which generally would have to be reported on.

Points for Field Reports.

Ambushes :

Nature of Cover (whether bush, wall, rock, etc., how near enemy's line of approach, way out. etc.)

Bivouac :

How sheltered or concealed, what water, surrounding ground, defensibility, way out.

Bridges :

Material, length, width of roadway, height above water or ground line, parapet (its height, material, &c.), nature of banks, number of arches, nature and thickness of piers, approaches at both ends, bottom, nearest repairing material.

Buildings :

Height, length, material, roof, water supply, surrounding ground fences, command of view, etc., out-houses.

Bush

Extent, height, nature, thickness (how far it can be seen through).

Canal :

See River.

Camp Ground :

Extent of open ground, whether flat or sloping, water, nature of soil, nature of surrounding country, whether commanded or not.

Country :

Whether flat, undulating, hilly, open or enclosed, cultivated or not, thickly or thinly inhabited, surface.

Defile :

Nature, whether commanded by neighbouring ground, length, width, ground on near and far side, ground for flanking parties, etc.

Enemy :

Numbers, how far off, which direction, what arm, what doing.

Ferry :

Number and size of boats, how worked, how far across, approaches, facilities for loading.

Fords :

Depth, width, strength of current, bottom, banks, approaches, boats, whether ford straight or zig-zag, surrounding ground. (Safe depths are 3 feet for Infantry, 4 feet for Mounted Troops, 2 feet 4 inches for Field Artillery or Transport waggon.)

Forest :

Extent, height and nature of trees, paths, thickness (how far it can be seen through).

Forts and Entrenched Places :

Extent, situation of entrenchments, also material, how armed, height of rampart, depth and width of ditch, surrounding ground, neighbouring heights, best line of approach, water, garrison.

Hills :

Height, steepness, surface (whether rocky, grassy, wooded, rideable, etc.), what view.

Lake :

Extent (*i.e.*, length and breadth), depth, banks, boats, surrounding ground.

Look-out Places :

Height, nature (whether trees, towers, hill, etc.) what other points visible (for signalling).

Marsh .

Extent, where passable, ways round, etc.

Mountain :

See Hill.

Position :

Nature (whether ridge, fort, village, wood, etc.), extent, nature of ground in front and on flanks, any heights near, how occupied, best line of approach for attacking force, line of retreat, position of water.

Railway :

Gauge between rails, number of tracks, sleepers, (wood, iron), embankments, cuttings, tunnels, bridges, (their length, height, width, &c.), telegraph, rolling stock, engines, carriages, cattle trucks, &c., carrying capacity, character of country traversed, drivers, guards, and other railway officials available.

Ravine :

Depth, width, nature of banks, bushy or rocky.

Redoubt :

See "Fort"

River or Creek :

Width, depth, bottom, banks, speed of current, watering places, crossings, bridges, boats, materials for rafts, navigable or not, character of banks, which commands the other, whether they are open or wooded or marshy. The existence of islands (these often facilitate bridging operations and help to conceal preparations.)

N.B.—To ascertain the rate of the current, throw a branch into mid-stream, and see how far it floats in a minute.

Road :

Nature, whether metalled or unmade, condition, fences alongside, width, height above surrounding country, means of repairing or improving, gradient, character of country passed through, open, wooded, cultivated, &c., places on or near the road suitable for encampments, supplies obtainable en route.

Station .

See Buildings.

Also state number of platforms and their length and width, number of entrances to them, amount of coal, spare rolling stock, rails, etc., sleepers, water tanks, telegraphs.

Supplies :

Amount of food for men, such as meat (living or dead), flour, vegetables, groceries, fuel, etc.; and forage, such as oats, mealies, grain, barley, hay, grass, etc.

Telegraph :

Number of wires, height of poles and their material, direction in which line runs.

Town :

Extent, *i.e.*, length and width, number of inhabitants or houses, material, etc., (describe as in BUILDINGS), situation, (as for POSITION), and its sources of water and light supply, also its SUPPLIES (as above).

Transport :

Number of waggons, carts, mules, horses, camels, oxen, boats, trucks, etc., or carriers.

Village :

See TOWN.

Water :

Whether good for drinking, quantity available, if flowing or stagnant, whether stream, pool or well, size and depth, how many horses can drink at a time, whether buckets required.

Wells :

Depth to bottom, depth to water, width, means for hauling water.

Woods :

See FOREST.

PART IV.—SCOUTING AND RECON- NAISSANCE

SECTION I.—REMARKS ON SCOUTS.

Successful scouting or reconnoitring is the most difficult and one of the most important duties in war.

Scouts may be likened to the feelers of an animal. Scouts are more than this. They are the eyes and ears of any body of troops. While manœuvring or halted, no matter for how short a time, scouts should always be out, and not only out, but well out. They should never be dispersed with. No body of troops, however well commanded, organized and equipped, can continue long near the enemy without disaster if there is no information or bad information about the enemy and his movements, and about the country, its military features, and the supplies it can furnish, &c., &c.

The object of scouting is to get this information in spite of the enemy, and send it to the commander of the force.

The soldier who desires to become a good scout must direct his best energies to the work ; for instance, he should make it a practice to observe at all times the country he is moving through, whether marching or in a train, he should make it a practice to note the features, the hills, the timber, the roads, the fences, the bridges, the rivers, &c. This is done by sportsmen and huntsmen, and becomes second nature to them. Soldiers should also time the pace at

which they ordinarily travel, both on horseback and on foot ; they should count the telegraph poles, measure how many yards they are apart and judge their rate of speed from them. They should impress useful facts on the memory. The importance of encouraging men to scout properly and take an interest in it cannot be over-estimated. All ranks should particularly devote time and attention to the study of maps and map-reading. They should be able to work in an unknown country by compass, sun, stars, and by the general direction of hills and streams ; and, above all, the good scout must be able to report intelligently, clearly, and concisely what he sees, his report being if possible accompanied by a rough sketch.

A really first-rate scout must be a man who is born with characteristics which fit him for the work. He must be active and intelligent, of quick eyesight and good hearing. He must have dash and daring combined with coolness and presence of mind ; but it is necessary that he should add to these natural endowments a thorough training in the work he has to perform.

General Duties of Scouts.

In reconnaissance of an enemy's position—To obtain information of an enemy's position and strength, the whereabouts of his guns, the nature of his entrenchments, the character of the country, the best lines of advance, and such other information as they may be directed to furnish.

In marches—To cover the advance and act like feelers to the force.

In attack—To act like feelers round the troops, to report any movement of the enemy, where he is, what strength, of what arms composed, the military features of the country, to look out for ambushes, &c.

In defence—To observe the enemy's approach, to report his strength, of what arms composed, and the direction of his march; to act like feelers round the force they belong to.

Scouts must remember that they must see as much as possible without being seen themselves, they must never show themselves on a sky line to look round, but must creep forward to look; also they must remember that they are using their eyes to see for the commander what he cannot see for himself, and must therefore not be content with half doing the work and thus be instrumental in sending in a report which is inaccurate, misleading, and perhaps disastrous.

Leaders should understand that good tools are always blunt in the hands of a man who does not know how to use them; therefore they cannot expect good work from a scout unless they explain clearly what information they want, and place the scout in possession of all the necessary information they have which bears on the subject, at the same time explaining clearly what information they require.

Scouts should realise that their first duty is to observe and not to fight. In special cases they may have to fight to defend themselves or to prevent the enemy's scouts from obtaining information. Scouts should always, if possible, work together in twos.

SECTION II.—DETACHED RECON-
NOITRING PARTIES.

Detached reconnoitring parties will as a rule be supplied by Cavalry, but Infantry may have to undertake this work in the absence of Cavalry, and should, therefore, be thoroughly acquainted with the rules which govern reconnoissance work of this description.

A specially trained officer with a patrol of highly trained scouts, all well mounted, is one of the most effective means of reconnoissance, and every Infantry regiment should be able, on occasion, to improvise a few mounted men for patrol work in addition to its own Infantry scouting parties.

When the enemy is found the real work will begin, and it can only be by the exercise of daring and prudence that valuable information can be obtained.

As officers and men on these duties run a great risk of falling into the enemy's hands, they should have no papers about them, or private diaries containing information regarding the force to which they belong.

In approaching any place that may harbour an enemy, such as a farm or defile, etc., caution and common sense must be used. In all cases the rule is for the party to be so scattered that it would be impossible to capture all of them, but at the same time the party must not be so scattered as to be unable to act mutually in case of surprise.

The instructions given to a leader of a reconnoitring party must not tie him down to any procedure, but must clearly state the points on which information is required.

Smoke as a Signal—Smoke suddenly rising, especially from an isolated building, is always a matter of consideration when scouting. It may mean nothing. On the other hand it may be a signal. If it rises in puffs, as if irregularly obstructed, it is more than probable that your movements are being signalled.

Leader of a Reconnoitring Party.

1. Should have a clear statement of the information required and the mission on which he is sent.

2. Should know the probable movements and intentions of the main body whilst he is detached from it, and those of other detachments similarly sent out.

3. Should be acquainted with all that is known of the enemy which might in any way assist or influence his action.

4. Should receive special instructions regarding prisoners, seizure of papers, documents, etc.

5. Should receive instructions on the nature and frequency of reports, where to be sent, and mode of transmission.

6. Should receive instructions on how the detachment is to be rationed.

7. Should receive instructions on the hour of starting, details as to strength, equipment, &c.

After receiving his instructions, the Leader of the Reconnoitring Party will assemble his officers, N. C. O's., and Eight Leaders, and will explain carefully to them what is to be carried out, and how he proposes to do it.

Foraging for Supplies.

This is often the means by which not only reconnoitring detachments are supplied but provisions obtained for the whole force, so Requisitions must be carried out systematically through the local authorities. A receipt should always be given for supplies.

The usual procedure on arriving at a village or farm is for a portion of the detachment to be detailed to watch all approaches and outlets, the head local authority is then sent for, and the time and place for the supplies to be delivered explained.

Sentries ought to be posted over any place in which supplies are seen to exist.

When collected (usually in some open space), the supplies will be taken over and a receipt given.

. SECTION III.—INFORMATION OF AN ENEMY.

The following are the principal means by which information of an enemy is obtained by scouts.

By observation of the enemy.

By information obtained from the inhabitants, from prisoners, deserters, &c.

By traces left of the enemy.

The following notes will assist scouts in their work :—

Clouds of Dust.

If the dust cloud is thick and low, it indicates infantry. A thin and high dust cloud indicates cavalry. If the cloud is broken, it indicates artillery or train. The length and movement of the cloud enables the strength of the force and direction of march to be roughly estimated.

In such calculations, the effect of wind must be taken into consideration.

Estimate of Numbers.

A given point is passed in one minute (no allowance for opening out) :—

By about 250 infantry in fours,

“ 120 cavalry in fours, at a walk, or if in rear of infantry, about 80.

“ 6 guns, if in rear of infantry.

“ 260 cavalry, in fours, at a trot.

If the distance between two points which is filled with troops is known, a simple but sufficiently accurate method of calculation is to allow two men per yard for infantry marching in fours; one man per two yards for cavalry in twos; one man per yard for cavalry in fours; 20 yards to a gun or waggon, and 10 yards to a two-horse vehicle. Thus if a column of infantry is a mile long it is composed of about 3,500 men.

Signs of an Enemy.

The number of fireplaces, and the length and breadth of the ground occupied, enable the strength of the force to be estimated. Articles of equipment, buttons, papers, dead horses, ammunition, &c., found lying about, will show

the arm to which the troops belonged. During a pursuit such traces will often enable valuable inferences to be drawn as to the nature of the retreat and the enemy's condition. Much also may be gleaned from tracks on the road. If the ground is evenly beaten down, the column consisted of infantry. If the tracks only occupy half the road, the column was probably not a large one. If the road is trodden on both sides, the force was probably one of considerable strength.

The Telescope.

In connection with efficient scouting, practice in the use of a telescope is essential. Very few men know how properly to use a telescope. The following extract from a small book on the use of the telescope in war by Captain Gordon Cumming may be of interest.

“On the way back to camp with a Field Battery we passed the captured guns (Battle of Colenso). A large number of men were standing about them. The distance was, I think, between 3,500 and 4,000 yards. The order “Action Front” was given, but before a shot was fired I got my glass on a gun wheel and seemed to make out a number of khaki clad figures (stretcher bearers and prisoners), &c., &c.”

The incident above quoted is correct; Captain Gordon Cumming by long practice with the telescope while deer stalking in Scotland and big game shooting in other parts of the world, could distinguish individuals with great accuracy and rapidity, and was thus enabled to render most valuable service.

PART V.—MARCHES.

SECTION I.—PRELIMINARY ARRANGEMENTS FOR MARCHES.

When there is no chance of meeting the enemy the health and comfort of the troops should be the principal consideration. Therefore, as many roads as possible will be used, a column with its own transport moving on each.

When it is possible that troops on the march may come into contact with the enemy, tactical considerations are predominant. The comfort, and administration of the troops, must, however, receive constant attention.

When troops are marching with a view to bringing the enemy to an immediate engagement, secrecy, rapidity, and readiness for battle must over-ride all other considerations.

The following matters should be considered in orders for marches. They are grouped under four headings.

I. Points connected with the Order of March.

Composition of Advanced, Flank, and Rear Guards.

The order of march of the main body, of the second line of transport, and of the supply columns.

The distance to be maintained between the Advanced Guard, the main body, the second line of transport, the supply columns, and the Rear Guard.

II. Points connected with the Start.

The comfort of the troops should, as far as circumstances permit, be considered in fixing the hour for starting.

They should, if possible, be allowed to breakfast and feed animals before marching.

A start in the dark is always inconvenient. Tactical or other considerations may, however, necessitate marching by night. If a forced march is contemplated, or if for any reason the troops are likely to be a long time on the road, it is better to start in the dark than to reach the destination late.

The halting place for the night should, if possible, be reached about two hours before sunset.

A starting point should be fixed which the head of the main body is to pass at a certain time. The Advanced and Flank Guards under orders from their Commanders must also be in position at some fixed hour and distributed for the protection of the main body and be ready to move on without delaying the main body's advance.

The Rear Guard should likewise move off to its position at the same time as the other detached portions of the force, as the men who form the Outpost Line on the Rear Guard side cannot be relieved until the Rear Guard is in position.

Units and transport will join the column at the starting point in their prescribed order.

III. Points connected with the End of the March.

The ground where the column is to pass the night will be chosen with due regard to water supply and to facility of protection. When within a few miles of the destination, a Staff Officer, accompanied by representatives of units, will, if possible, ride ahead to mark out camp sites and arrange for the supply of water and its protection from pollution.

The Officers Commanding second line of Transport, and Supply Column, and the Officer Commanding Rear Guard, will report personally to the Officer Commanding the Column as soon as they arrive at the destination.

Each unit will arrange to have its second line of Transport met on arrival and guided to its destination.

IV. Points connected with Special Instructions.

Provision of Guides, Rations, Halts, Communication with other Columns, Position of Commander, &c.

SECTION II.—INSTRUCTIONS FOR MARCHING.

The power of efficient marching depends largely on the attention of Regimental Officers to every detail that affects the endurance and well being their men.

The following Instructions must be kept constantly in mind :—

That boots fit properly, and are kept well greased.

That socks are kept clean and mended, soaping the socks prevents blisters.

That when possible men wash their feet at the end of each march.

That men's feet are constantly inspected.

That water bottles are filled (unsweetened cold tea preferably), that arrangements are made for food during the march.

That impure water is not used.

That men only drink a small quantity at a time.

That an officer when available marches in rear of each company and sees that there is no straggling and that no one quits the ranks without permission.

That a system of rapid communication throughout a column should be arranged.

That columns move with as broad a front as the ground allows.

That all troops should march off at attention and before arrival at the destination, and in passing through towns men are called to attention.

THE PACE.

The pace must be adapted to the state of the roads, nature of the country and climate.

Steadiness and regularity of pace are essential to a successful march, and all distances must be maintained correctly.

Before halting units will close up to their proper distance.

The average rate for Infantry marching including short halts may be put down at 3 miles per hour, but this can only be maintained where roads are good, when there are no checks, and when columns are small.

LENGTH OF MARCH.

The length of a day's march may be reckoned at from 12 to 15 miles for Infantry.

Provided the pace is not unduly hurried, the more quickly a march is completed the better for the men.

HALTS.

A short halt should be ordered about half an hour after the start. Afterwards halts for five or ten minutes at the discretion of the officer commanding the column.

BILLETING.

If billeted in a town, an alarm post should be fixed before the men are dismissed to their billets. No officer should leave the parade until the men are told off to their billets. Company officers must visit the whole of the quarters where their men are billeted.

SECTION III.—GENERAL RULES FOR MARCHES BY NIGHT.

Night Marches are undertaken to avoid the heat of the day, to forestall the enemy, to gain time either in advance or retreat, or to move troops to a position of assembly from which to deliver an attack.

If possible, local guides should always be procured.

Before undertaking a night march, the roads or route must, as far as practicable, be carefully reconnoitred, and all points noted where checks are likely to occur.

The general compass bearing should be previously noted and mentioned in the March Orders. The magnetic compass variation for the locality should also be given.

When a column is formed of all arms, cavalry and artillery will usually march at the least exposed end of the column.

All wheeled transport, machine guns, etc., will generally march grouped in rear, or where they will be least exposed.

Units should be informed what they are to do in case of an attack.

Every commander should have a fixed place in the column, where he or a representative may be found. An officer will be detailed from each Battalion for the Brigadier, to convey instructions from him to the Battalion.

Connections with Units.

When nights are very dark the use of a luminous paint placard or label on the back of a man on the right of the leading man of each unit is useful. This placard should give the Regiment thus: "1st Regt.," and Companies thus: "1st Regt. No. Co'y." The Orderly to C. O's. should also carry a label, thus: "1st Regt. C. O."

In spite of every precaution the maintenance of connection throughout a column is, at night, a matter of great difficulty and at the same time one of the utmost importance. The regulation distances between units should be reduced or omitted, and the column must be kept constantly closed up. Troops when over fatigued should never be used for a difficult and dangerous night march, as then it is almost impossible to keep units from getting mixed up.

The distance of the Advanced, Flank and Rear Guards from the column must be small, close connection being maintained by means of connecting men.

The normal march formations will, as a rule, be adhered to, unless tactical exigencies require a change. When, therefore, a night march is undertaken with a view to an attack, no change in the normal march formation will usually be necessary, until a position of assembly is reached. On arriving there, the march may be said to be at an end, further operations coming under the head of Night Operations.

To prevent the troops in rear going astray, the Advanced Guard should block all branch roads that are not to be used, if necessary, by posting men at them. These men will fall in in rear of the column as soon as it has passed them.

Rifles are not to be loaded unless specially ordered ; absolute silence must be maintained, and no smoking or lights are to be allowed, except with the permission of the commander of the force.

Halts should be at stated hours, and for a definite period. Units must not halt till they have regained any distance they may have lost.

The pace must be as uniform as possible. The darker it is, the slower will be the pace.

When there are wagons or baggage animals on a night march there should be some spare horses at the rear of the column, and some selected men to off saddle worn out animals and place their saddles or harness on to fresh animals.

Any horse or man that falls out should at once leave the road so as not to block it.

PART VI.—PROTECTION ON THE MARCH.

Advanced, Flank, and Rear Guards.

No body of troops, from an Army Corps to a Company, should ever move without having its front, flanks, and rear protected and watched. By this means the main body obtains time to form up and resist attack. This screen in front is called an Advanced Guard, on the flanks, Flank Guards, in the rear, a Rear Guard.

When Cavalry are available, the duty of protection on the line of march is performed by them. The following principles, however, apply equally to Cavalry or Infantry :

SECTION I.—ADVANCED GUARDS.

The first and essential duty of the Advanced Guard and of the scouts who precede it is to reconnoitre and feel the way for the advancing body of troops it is covering. It is not until the Advanced Guard finds itself unable to advance, or until the enemy prevents the scouts and their supports from seeing and finding out what is taking place in front, that it should take up its second but equally important duty of driving the enemy back, and thus enable the march to be continued.

To meet the requirements of feeling the way and forcing the way the Advanced Guard will usually adopt a formation of successive bodies of gradually increasing strength

from front to rear, so as not only to feel for and force the way but to oppose a constantly increasing resistance to the enemy should he attack.

All Advanced Guards, Flank Guards, and Rear Guards are formed on the foregoing principles, scouts or feelers nearest the enemy, and then gradually increasing strength until the main body is reached, so that no trap can be fallen into without due warning, and no enemy can attack the Main Body without giving it time to deploy.

For the purpose of convenience Advanced Guards are usually divided into three main divisions :

1. Advanced Parties with Scouts.
2. Support.
3. Reserve.

Distance between Fractions of Advanced Guard.

No rule can be laid down as to the distance between Fractions of the Advance Guard. If the distance from the main body is too great, the Advanced Guard might be cut off; if too small, the main body might be surprised, or come within effective range without sufficient warning. In open country by day much greater distances are advisable than in close country, or in foggy, rainy weather, or in night operations. The great principle in all cases is to keep touch between the various parts of the Advanced Guard and between the Advanced Guard and the main body; that is, no portion of it should be isolated, and all should be in touch with some connecting link or support, which in turn has touch with the troops in rear.

As a guide only of a very general nature, to be departed from whenever such departure can be justified by common sense, about 800 yards might separate the Advanced Parties from the Support and the Support from the Reserve, the Reserve might be about the same distance from the main body; or sometimes the Support may be nearer the Advanced Parties, and the Reserve further from the main body, subject, however, to the principle of having men well out to the front to a distance of at least a mile from the main body they cover, if rifle fire only has to be guarded against; but if the force is large and Artillery has to be guarded against, the distances must, of course, be far longer.

Sometimes when a force is weak there will be no Reserve, but this will not alter the obligation imposed on the O. C. Advanced Guard of pushing its feelers out to at least a mile from the body he is protecting, so as to ensure it against rifle fire.

Strength of the Advanced Guard

Will vary according to circumstances, being generally $\frac{1}{4}$ to $\frac{1}{6}$ of the whole force, but as work on detached duties is extremely hard on men, the minimum number should be employed compatible with a proper performance of the work.

As before explained, the Advanced Guard will be divided into Advanced Parties with their Scouts, Support, and Reserve. For the purpose of better illustrating what duties each of these fractions of the Advanced Guard would have

to perform, the work of a Company of 6 Sections ordered to act as Advanced Guard will now be considered in detail.

SECTION II.—COMPANY ADVANCED GUARD COMMANDER.

The Commander of the Company ordered to act as Advanced Guard should, before he starts his men off to perform the various detached duties allotted to his Company:—

Make sure that men, arms and ammunition are correct, and men have rations. Make certain he thoroughly understands his instructions, the route to be followed, what is known of the enemy, where his reports are to be sent. He will also write down important points in his Note-book, and carefully study his map, and, if not done before, place on his map two or three lines to coincide with the magnetic deviation of the compass for the locality. He will then divide his Company into Advanced Parties, and Support or Supports. The strength and disposition of each of these fractions will be in accordance with the character of the country and the character and amount of the opposition he will probably meet with. He will give simple and clear instructions to Section Leaders, who in turn will communicate them to the Eight Leaders and men. He will make all subordinate leaders follow his instructions on their maps. If they have no maps, he will let them make rough pencil copies from his, if time permits.

He will point out to O.C. Advanced Parties and Support any places to be particularly searched on the line of advance.

He will state where he will be found, so that no time will be lost in transmitting reports. He should be with the Support following the centre of the line of advance.

The Company Commander will also impress upon his subordinate leaders the necessity of sifting information before they transmit it, distinguishing and separating what they know to be accurate from what is hearsay. He will, furthermore, impress on all portions of his command that the pace and distance between portions of the Advanced Guard are regulated by the pace of the main body.

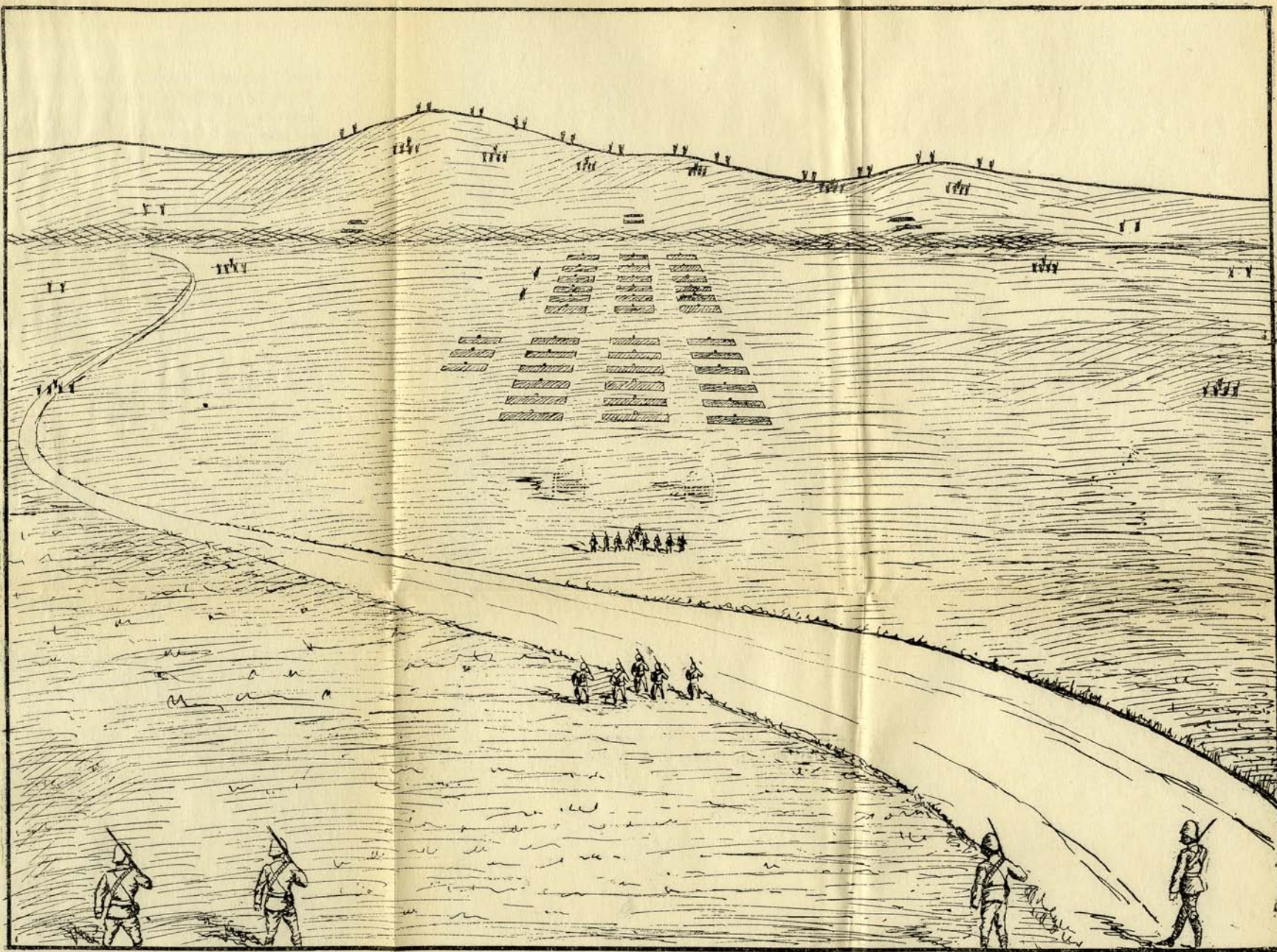
After the Company Commander has described in general terms the work to be done by the various portions of the Company, he might give the following commands :—

“ No. I Section, Centre Advanced Party.”
“ No. II Section, Right Advanced Party.”
“ No. III Section, Left Advanced Party.”
“ Nos. IV, V, and VI Sections, Support under Lieut. ——.”

It will be noticed that Nos. IV, V and VI Sections are placed under Lieut. —— . This is done so that the Company Commander can generally supervise the arrangements of the Advanced Guard. But when he has done this, he will join the Support and at once take over command of the whole.

The leaders of the various fractions of the Advanced Guard named will then explain to the units under their command their respective duties, and when ready, the Company will break into the fractions named, each fraction taking precautions to protect itself against surprise, and moving into its position at the double, if necessary, otherwise in quick time.

The annexed Plate shows how each of the fractions of the Advanced Guard would be distributed.



EXAMPLE OF ONE INFANTRY BATTALION OF 8 COMPANIES ON THE MARCH. IN THE ABOVE PLATE IS SHOWN ALL THE ADVANCED GUARD, A PORTION OF THE FLANK GUARDS, AND ALL THE REAR GUARD.

It will be seen in the Plate that the Advanced Parties and the Support are disposed in three portions proceeding a broad screen in front of the force.

The officer commanding the six Sections detailed for Advanced Parties and Support marches with the Support. He will see to it that all fractions of his command keep close both with his Centre Advanced Party and from front and rear. He will also see that the Centre Advanced Party follows the right road.

It will be noted in looking at the Plate that there is no Reserve provided. The reason for this is that the force is small and cannot conveniently provide one. The whole force therefore act as its own Reserve.

Flank and Rear Guards will be told off on principles similar to those laid down for the Advanced Guard on the supposition that they are furnished from another company.

SECTION III.—DUTIES OF ADVANCED PARTIES.

To rapidly to gather and transmit all possible information.

To drive back hostile parties.

To detect and defeat any attempt of the enemy to destroy bridges, &c., or impede the advance.

To use every means of obtaining information by personal observation, patrols, questioning inhabitants, prisoners, &c.

To conform to the pace of the Support.

Generally speaking, the flanks of any object capable of concealing an enemy, such as a village, wood, &c., ought to be turned and watched by the Advanced Parties before it is entered in front.

In searching localities on the line of march, care must be taken that the advance of the Main Body is not delayed.

Advanced Parties should examine bridges, rivers and fords carefully. If the bridges are insecure or broken, a report should at once be made, and a ford searched for with a good bottom.

SECTION IV.—DEFILE .

The heights commanding defiles must be occupied by scouts of the Advanced Parties until this duty is taken over by Flanking Patrols ; but should the defile be long and the country mountainous or broken, special flank guard troops may have to be detailed to take over the flanking duties. These will march with the Support, and will be allotted to commanding positions on the flanks by O. C. Advanced Guard. These special troops will practically form a chain of piquets along both flanks—falling in in rear of the column as the rear of the column passes them.

SECTION V.—SUPPORT TO ADVANCED PARTIES.

The support will render every assistance to the Advanced Parties, at the same time never losing touch with the main

body—to the pace of which it will conform. It should never enter a village or place where the enemy might be concealed, until it has been scouted and is being watched by the Advanced Parties—so that should there be a trap all will not be caught.

SECTION VI—CONNECTING LINKS.

Connecting links between the component portions of the Advanced Guard should be established when necessary and made to understand the importance of their duty.

They must never lose touch with the two bodies they are connecting.

They must always be on the look out for signals from front or rear and at once pass them on.

They must constantly look back at the next party in rear and at once pass word forward of any change in direction of the main body.

Signalling Communication.

In work of the nature of Advanced Guards, signallers knowing how to use lamp, flag, and heliograph are invaluable for quickly transmitting information.

A signaller should move with each Section of the Advanced Parties and one with the Support, also if possible one with each of the Flank Guards and with the Rear Guard.

SECTION VII.—FLANK GUARDS.

The Plate shows the disposition of two Sections which act as Flank Guards to the force.

Their duty is to prevent the force being attacked in flank without due notice.

The principles and formations of Flank Guards are similar to those laid down for Advanced Guards, except that the Company or parties move parallel to the flanks of the force, with feelers out, and taking care that no enemy gets within range of the flanks of the troops to which they are acting as Flank Guards.

SECTION VIII.—REAR GUARD TO AN
ADVANCING FORCE.

With regard to the duties of the small Rear Guard of one Section shown in the Plate, and which is furnished by the main body, the officer commanding it has taken care that every man in his command knows his duty, which in this case would be mainly of a Police nature, as the force is advancing and the rear is supposed to be more or less protected by the advance and proximity of other troops. The following are mainly the duties that this small Rear Guard would have to perform, viz:—to collect stragglers, guard transport and see that it does not delay on the road, keep off marauders, and generally cover the rear of the Column. If the main body halts, the Rear Guard always takes up a position covering the rear.

SECTION IX.—REAR GUARD TO A RETIRING FORCE.

The object in this case is to delay the enemy while the main body continues its retirement. It must therefore be as strong in numbers as is necessary for this purpose.

The manner in which a Rear Guard carries out this mission is by taking up a succession of defensive positions with a good line of retreat, thus compelling the enemy to halt and deploy for attack as frequently as possible. In addition to this, the Rear Guard should protect the flanks and keep touch with the enemy's movements.

Points for Commander of Rear Guard.

A matter of great importance to the Commander of a Rear Guard is to judge the proper time to retire. If he retires too soon he is only partly carrying out his work.

If he falls into the error of trying to dispute every inch of the ground, it may occur that while he is allowing one part of the enemy's force to hold him in front, another portion may turn his flank and cut him off.

It is generally helpful to send on a reliable officer to note the next favourable position for defence on the line of retreat.

The positions should, if possible, be sufficiently far apart to compel the enemy, after seizing one, to re-form column of route before advancing against the next.

Skilfully laid ambushes will cause the enemy to move with caution.

A system of communication, by signalling or otherwise, between all parts of a large Rear Guard to a force retiring should be carefully arranged.

Instructions should be given to the Commander of a Rear Guard as to the extent he may break down bridges, destroy railways or telegraphs, burn villages, and destroy property, &c., with a view to delaying the enemy's advance, for the retreat may be only of a temporary nature, and it may be in contemplation to re-occupy the country passed through.

Defiles should not be entered by the Rear Guard until the whole of the main body has passed through. Until this has been accomplished the enemy must be checked at all risks.

Narrow roads, &c., can be blocked by locking several wagons together and removing one or more wheels.

Boats or scows should be removed to the side of the river further from the enemy and sunk, or burnt.

Woods, scrub, grass, &c., if the circumstances demand it, should be set on fire so as to conceal the movements of the Rear Guard and impede the enemy's advance.

SECTION X.—POSITION OF MACHINE GUNS WITH ADVANCED GUARDS, ETC.

Machine guns should, whenever possible, be attached to the Advanced Parties, to the Support, and to Flank and Rear Guards. They should, however, be sufficiently protected from being cut off.

SECTION XI.—POSITION OF ARTILLERY WITH ADVANCED GUARDS, &c.

A Battery of Artillery with a force advancing should march where it can readily come into action and yet be protected from surprise. Two guns between the Support and the Reserve, and Four guns with the Reserve, are, as a rule, good handy positions for a Battery.

In retiring, sufficient Artillery should be distributed where they can come into action to delay the enemy and yet not run the risk of being cut off.

PART VII.—OUTPOSTS.

Outposts Described.

The screen of Troops which a force, when halted, throws out round itself for protection from surprise is called Outposts ; they act as the eyes and ears of the force.

They are formed much on the same principle that Advanced Guards are formed, viz., successive bodies of men arranged as follows :—

Sentries or look out men of Observation Posts, acting as the advanced feelers—supported by the Observation Posts which furnish them, and which are capable of offering a considerable amount of resistance—then, in rear of the Observation Posts, Piquets on a general Piquet line, offering still further and very important resisting power. In rear of the Piquets Supports, and, in some cases, behind the Supports a general Reserve, or at times, local Reserves to specially threatened sections of the Outpost Lines.

SECTION I.—DUTIES OF OUTPOSTS.

The duties of the Outposts are :—

To protect a force against surprise.

To ensure that the main body may rest undisturbed.

In case of serious attack, to gain time for the main body to occupy ground where it can defend itself.

If an enemy is so continuously watched that he can make no movement without being observed, surprise is impossible. The first duty, therefore, of the Outposts is observation.

All attacks must be delayed and resisted, and the enemy's troops, especially his artillery, must be prevented from approaching within effective range of the main body. Another equally important duty, therefore, is resistance.

Observation by stationary posts does not generally obviate the necessity of searching the ground for some distance in advance by patrols. By night, at dawn, in thick weather and in close country, constant patrolling is the only means of ensuring immunity from surprise and sufficient warning in case of attack.

SECTION II.—SELECTION OF AN OUT-POST POSITION.

The commander of a force, directly he decides to halt, should select a position, to be occupied, in case of attack, by the main body. He will, also, approximately indicate to the officer commanding the Outposts the general line that the Outposts might take up, and order the requisite number of troops to be held in readiness to act under him.

It is essential that Outposts should be pushed so far out as to prevent an enemy's guns from approaching within effective range, not only of the camp or bivouac, but of the ground the main body is to occupy in case of attack ; and, also, that they should be of sufficient strength to delay his advance until that ground is occupied by the main body.

Thus, as a general rule, it may be laid down that Outposts, in undulating country, should, when possible, be within infantry range of all ground from which the enemy's artillery might bring effective fire to bear on the ground on which the main body is resting, or which it may have to occupy in case of attack.

An Outpost position, as far as possible, should possess the following characteristics :—

It should be easily defended.

It should be difficult to surprise.

Retirement from it should be easy.

Command, co-operation and intercommunication will be facilitated by placing the Piquet line and, if possible, also the advanced Observation Posts along well defined natural features such as ridges, streams, the outer edges of woods, &c., or in the vicinity of roads.

If the Outpost position includes commanding ground from which a wide extent of country can, in clear weather, be kept under observation by day, it will be a great advantage. Facilities for observation, though extremely important, are, however, of less importance than facilities for protracted resistance and an easy retreat, and the inclination to advance the Outpost line unduly with a view to include all commanding and apparently favourable ground, must be resisted. For instance, it often happens that a series of apparently favourable positions are found which tempt an officer to push forward unduly, the advantage thus gained being outweighed by the risk run of being cut off.

The flanks of an Outpost position will be well secured if they rest on some natural obstacle, such as a river, a morass, &c.

SECTION III.—STRENGTH AND COM- POSITION OF OUTPOST TROOPS.

As a general rule the Outposts of a force of all arms will, by day, in open country, consist of bodies of Cavalry pushed well out and especially guarding all approaches which the enemy might use. The Cavalry will, if necessary, be supported by Infantry.

By night the duty of protection falls mainly on the Infantry, the bulk of the Outpost Cavalry being usually withdrawn behind the Infantry posts.

The strength and composition of Outposts, whether of all arms or Infantry only, depend entirely on circumstances, such as the strength, character and whereabouts of the enemy, the distance of the main body from the ground it is to occupy in case of attack, and the nature of the country. The only useful guides are experience and common sense.

The following points must be borne in mind when considering the strength of Outposts :

Outpost duty is most exhausting, therefore not a man more than is absolutely needed should be employed, usually not more than $\frac{1}{6}$ of a force. At the same time it must be borne in mind that the power of resistance of Outposts must be sufficient to delay an enemy's attack until the main body has had time to get in position to defend itself.

In enclosed country the movements of troops are generally confined to the roads. In this description of

country it is generally sufficient to hold the roads by which the enemy may approach, and to watch the intervening country.

SECTION IV.—SELECTION OF THE OUT-POST TROOPS.

It depends upon circumstances whether the Outposts should be furnished from one command in the force or from several commands. The latter course would usually be adopted when the force is scattered and the Outpost position extensive; each subordinate commander in this case would be instructed to occupy a section of the Outpost position near the bivouac, camp or cantonment of his command.

Failing other instructions, the duty of finding Outposts for a force marching from day to day rests with the commanders of the Advanced, Flank and Rear Guards that have covered the march during the day. As soon as possible after halting these commanders will report to the officer responsible for the security of the march for the day, and take his instructions. If the troops covering the march have had much fighting or fatigue the Outposts will usually be furnished by the main body.

If the Outposts are to come from the main body, the commanders of Advanced, Flank and Rear Guards remain responsible for the safety of the force until the Outposts have occupied their positions.

SECTION V.—OCCUPATION OF AN OUTPOST POSITION.

The simplest method is to assign a certain amount of ground along a well-defined frontage to an officer to organize and command as a Section of the Outposts (if the ground is just about what a Company can look after, the work is simplified by assigning the Section to a complete Company), the limits of such frontage being marked by natural or other features, such as roads, trees, farms, streams, &c. The greatest care should be taken that each Outpost Section Commander knows what roads he is expected to guard, and also the exact limits to either flank of the ground he is watching.

SECTION VI.—DUTIES OF COMMANDER OF OUTPOSTS.

All troops on Outpost are under his orders.

His position should be where he can best supervise, receive reports, and communicate orders, usually with the Reserve, or with some central supporting Company or force, when there is no Reserve.

When, by reconnoissance as well as by the aid of the map, he has made himself acquainted with the ground the Outposts are to occupy, he issues Outpost Orders including the following points :—

- I. Information of the enemy.
- II. Position the main body will occupy if attacked.
- III. General positions to be occupied by the Outposts, division into Sections if necessary ; frontage, or number of

roads, allotted to each Outpost Company, or to each Section ; the situation of the Reserve. If the Outposts are divided into Sections he will give each Section a number as well as a geographical description.

IV. Dispositions in case of attack. Generally the line of resistance to be adopted. (Note.—As a general rule in case of serious attack, the Observation Posts, when forced in, will fall back on a prepared position at or about the Piquet line, the Supports will reinforce the Piquets and any Detached Posts of importance, the Reserve will move up in support. Only in exceptional cases will the line held by the Supports be chosen as the line of resistance and the Piquets fall back upon it.)

V. Preparations for defence ; construction and improvement of lateral communication.

VI. Lighting fires.

VII. Situation of Examining Posts and which Section Commander is to find them.

VIII. Signalling and other means of communication. Note.—Each section of the Outposts should have its signalling communication with O. C. Outposts by day and night, not only organized but in operation at stated intervals.

IX. Special arrangements by night.

X. The hour at which Outposts will be relieved.

XI. His own position.

As soon as he can, he will send to to the Commander of the force a rough sketch showing his dispositions.

SECTION VII.—STRENGTHENING AN OUTPOST POSITION.

All Piquets and Posts should immediately on arrival in the position they are to occupy at once set about placing it in a defensible condition. When a force halts for more than a few hours, free communication between the several portions of the Outposts must invariably be secured, so as to enable them, in case of attack, to act in concert. If the halt is likely to be of some days' duration, passages should be made through enclosures and walls, hedges and brushwood should be cut down, bridges constructed, ditches filled up, and the nearest line from one Post to another marked out by finger posts, or other means.

As nothing checks an attack more than an unexpected obstacle within a moderate distance of the place attacked, impediments should be placed in the way of an enemy's advance, at a spot under fire from the ground where it has been determined to make a stand.

If a force remains halted in one place for any length of time the area of advance should be narrowed as much as possible by blocking up roads, defiles, bridges, and all approaches which are not required by the force; and the Outpost position should be strengthened by abattis, redoubts, fortified farm-houses, and villages.

SECTION VIII.—DUTIES OF COMMANDER OF OUTPOST COMPANY.

The Officer Commanding an Outpost Company (the Officer Commanding an Outpost Section will act in a similar

manner) determines in his own mind how he will utilize the ground allotted to him to the best advantage. He should :—

I. Examine the country over which the Company advances to take up its position, noting the favourable positions for disputing the ground if he has to retreat.

II. Make arrangements for a protracted resistance by selecting a good defensive position which, if possible, will support, and be supported by, the Companies on both sides ; by strengthening it artificially ; and by deciding how to post his men in case of attack.

III. Examine the country generally and anticipate from what direction he may be attacked.

IV. Utilize all facilities for observation.

V. Send small patrols to communicate with the Companies on the flanks of his position.

VI. Give instructions to the commanders of the Piquets and Detached Posts, and decide on the position of the Support, which he will himself command.

VII. Give numbers to his Piquets.

VIII. Make certain that the country in advance, unless it is very open, is constantly patrolled or scouted ; that the commanders of Piquets and Observation Posts thoroughly understand what his intentions are in case of attack, and that they make adequate preparations for defence.

IX. Visit his Piquets and Posts at uncertain intervals.

X. See that all fires, if permitted by the commander of the Outposts, are carefully concealed from the view of the enemy.

As soon as he has made his disposition, he will send in a report, accompanied by a rough sketch, to the commander of the Outposts or Section of the Outposts as the case may be.

SECTION IX.—OUTPOST COMPANY.

Each Outpost Company at war strength will as a rule be divided into:—

(a) Two Piquets :

Each Piquet finds two Observation Posts with their sentries ; finds patrols ; finds sentry over Piquet.

(b) Support :

Each Support finds an Examination Post when required ; finds the men for a Detached Post when required ; finds a sentry over the Support.

SECTION X.—DUTIES OF PIQUET COMMANDER.

He must be sure that he thoroughly understands his instructions ; making notes on important points ; he must study the ground and the map, and see that men, arms, ammunition and rations are correct, and that he has entrenching tools with him.

On marching off he must send out scouts ahead and to the flanks to scout the ground thoroughly and examine it with field glasses.

Knowing the breadth of the ground he has to watch, he will halt his Piquet at a central position about 800 yards in advance of the Support, under cover and on a spot which gives him easy access to the front, to the flanks and to the rear. He will then order one of his Sections to watch the front with Observation Posts, the officer in command of

that Section will send an Eight about 800 yards to the right front, and another Eight about 800 yards to the left front, to form Observation Posts. The Eight Leaders, under the supervision of their Section Leader, will divide the ground between them and watch it with one, two, three or four sentries according to the nature and extent of the ground.

When the Observation Posts are in position and sentries posted the O. C. Advanced Section will call in the scouts and report to O. C. Piquet, who meanwhile has directed the other Section Leader to place the position selected for the Piquet in a state of defence and arrange for patrolling, etc.

SECTION XI.—PIQUET.

A Piquet should under ordinary circumstances be formed of two complete Sections, altogether four Eights under their officers or leaders. The extent of front assigned to a Piquet of this strength to watch and protect must depend on circumstances such as the proximity of the enemy, the number of the troops, the character of the country, the facilities for resistance, and the amount of patrolling necessary. Very open ground can, by day, be easily defended and watched by a much smaller number than intersected ground; at night, or at dawn, open ground is the weaker of the two. It will often be necessary, therefore, in open ground, to reinforce a Piquet, or the Piquet line, at night.

In peace time officers should watch varying amounts of front, they will soon thus learn by experience what amount of front is possible and desirable to observe in any given description of country.

A Piquet of two Sections might properly be divided so as to furnish the following duties :

- (a) 1 Section furnishing two Observation Posts, each being composed of 8 men and a leader.
- (b) 1 Section furnishing the Piquet, from which will be taken a Reconnoitring Patrol and a sentry over the Piquet.

1 Senior N. C. O.

[NOTE.—The Senior Section Officer will command the Piquet unless any other Senior Officer is detailed for this duty.]

Piquet Sentry.

Each Piquet has a look-out sentry who watches in the direction of the Observation Posts, and reports signals to the officer of the Piquet, and by night acts as a watch over the Piquet, challenging all who approach.

SECTION XII.—OBSERVATION POSTS

As has already been pointed out, the two Observation Posts furnished by each Piquet will be stationed some 800 yards (more or less, according to circumstances) to the right and left front of the Piquet. An Observation Post should consist of 8 men and a leader, and would as a general rule throw out two double sentries, each double sentry to be stationed some 200 yards, more or less, from the Post, at a place from which they can have a good view in the direction of the enemy without being seen themselves, see the sentries on both sides of them, and at the

same time be within sight of the Post or of some man connecting them with it. In this way an outside chain of sentries or feelers is formed around the entire Outpost line.



(NOTE.—When the country is open and under favourable conditions, an Observation Post may do its work perfectly well with two sentries only.


The Leader in charge of an Observation Post is responsible for the alertness of his sentries; and that they know their work thoroughly and are doing it. To ensure the proper discharge of their duties he should keep up constant communication with them.

Sentries of each Observation Post are numbered from right to left. Observation posts of Piquets are similarly numbered.

SECTION XIII.—OBSERVATION POST SENTRIES.

Each sentry detailed from an Observation Post should be able to answer correctly all questions relating to his duties, especially those that call for such answers as the following:—

1. I am No. 2 Sentry.
2. My Observation Post is No. 1; there 
3. My Piquet is No. 2; there 
4. I am not to allow any one to pass except officers and patrols.
5. I am to shoot any one attempting to force my post.
6. The sentry post on my right is by that tree, on my left is by that gate.

7. The Officer Commanding Support is Major Brown ; there 
8. The enemy is supposed to be over there by those woods.
9. I am to watch the bit of ground from that farm up to and including that road.
10. I am at once to notify my Observation Post if I see or hear anything suspicious.
11. The countersign is

Private signals for Visiting Patrols approaching at night must be communicated to Observation Posts.

All Observation Post Leaders must make a rough sketch (no matter how rough) of their post—indicating position of enemy, their own and neighbouring Sentries—Piquet and Support.

SECTION XIV.—OUTPOST SUPPORT.

1. The Support will usually be about 800 yards in rear of the centre of the Piquets it is supporting, advantage being taken of positions affording cover from view and shelter from bad weather.

2. If it is intended that the Piquets should fall back on the Support, the latter should occupy a good defensive position, strengthened by entrenchments, obstacles, &c.

3. Supports must keep up communications with their Piquets, with the Supports on either flank, and with the Reserve. If necessary, they must protect an exposed flank with a Detached Post.

The following Plate shows a section of an Outpost Line with two Piquets and a Support. It will be noticed that No. 1 Observation Post has a man on the church tower with a telescope :—

SECTION XV.—VISITING PATROLS.

Visiting Patrols consist of small Patrols of an officer or N. C. O. and man who visit sentries or portions of the Outposts as may be required. The officer commanding the Piquet which furnishes the Observation Posts is, however, responsible for the correct performance of this service as regards his own Posts.

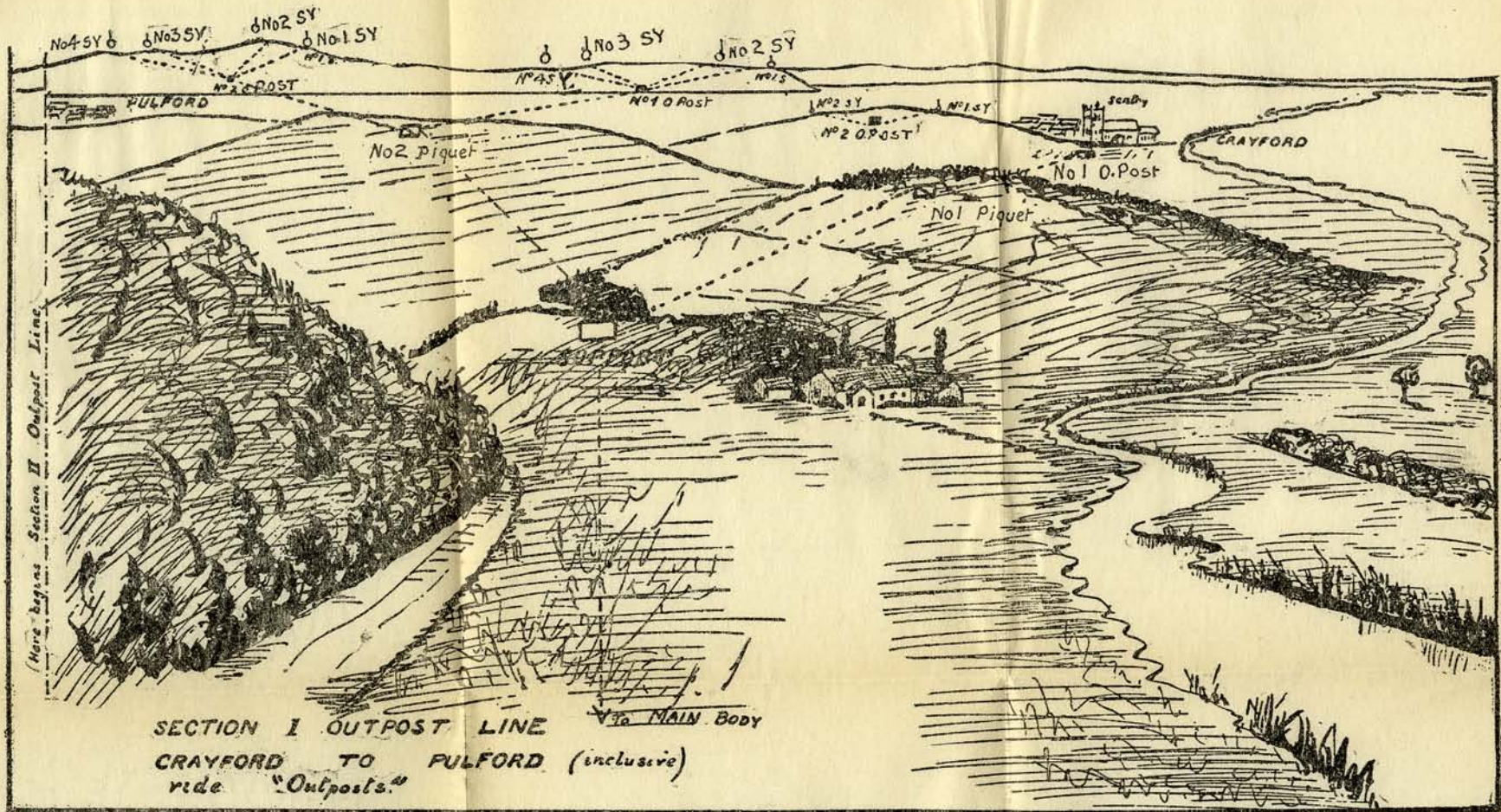
SECTION XVI.—OUTPOST RECONNOITRING PATROLS.

These Patrols consist, usually, of not fewer than three men (at times they may need to be much stronger) under an officer or a non-commissioned officer. They reconnoitre outside the line of Observation Posts in the direction of the enemy to gain information.

A patrol of this sort will receive orders from the Piquet Commander on the following points :—

1. Direction (or road) to be followed in going and returning ;
2. Distance to go ;
3. Ground particularly to be examined ;
4. Time expected back.

It must be remembered that Reconnoitring Patrols are not intended to fight, but to discover the approach of the enemy and get information concerning him. Vigilance, silence and prudence are to be strictly enjoined on them. Their duty is to see without being seen.



(Here begins Section II Outpost Line)

SECTION I OUTPOST LINE ↘ To MAIN Body
 CRAYFORD TO PULFORD (inclusive)
 vide "Outposts."

It should be an axiom with all leaders never to sacrifice life to obtain information which they can equally well obtain by other means. For instance, the enemy may be in close proximity to the camp, the country outside the Outpost line of the camp may be of an enclosed and broken nature accessible perhaps by only one or two roads or tracks. To order small patrols out daily to penetrate far into this enclosed country, and to march along a well known track, would often invite the way-laying and murder of the patrols; information could probably be equally well obtained by stealth, by spies, by utilising high ground and powerful field glasses, or, if desirable, by reconnaissance in force; but the best information of all is that obtained by daring and highly intelligent men who will gain information by stealth, without throwing away their lives uselessly, and who will know the information required and how to report it. The value of the services of men such as these, of whom there are a few in every regiment, cannot be too highly estimated or too fully recognized.

SECTION XVII.—DETACHED OBSERVATION POSTS.

When a place of special importance out of the general line has to be watched, it will be done by a Detached Observation Post consisting of an Eight or a Section. This sort of Post would have one or two sentries, and would relieve its own sentries just in the same way that an ordinary Observation Post does, the only difference being that the detached Post would generally keep its sentries closer to it, so as to have the men more concentrated.

When such a Post is necessary, it will be furnished from the Support, and be attached to the nearest Piquet for orders and communication.

SECTION XVIII.—EXAMINATION POSTS.

The object of Examination Posts is to have defined channels through which alone strangers and others approaching the out-post line are allowed to pass. Such a post should be placed on a line of approach, and to it all unauthorized persons should be conducted. A selected non-commissioned officer and three or four men are usually sufficient for one post. The number of Examination Posts and their position are arranged by the Officer Commanding Outposts. They will be furnished from the Supports, and attached to a neighbouring Piquet; and their position will be made known to all Piquet commanders, who, in turn, will inform all ranks under them.

SECTION XIX.—RULES FOR PIQUETS AND OBSERVATION POSTS.

1. No man to leave the Post or Piquet.
2. Arms and Ammunition to be always ready.
3. No fires except with special permission in concealed places.
4. No noise or loud talking.
5. Every man must be alert one hour before daybreak. This is the most likely hour for an attack.
6. Piquets and Posts pay no compliments. If a superior officer visits the Piquet or Post the Leader alone salutes him.

As has been already stated, the normal strength of a Piquet should be four Eights and their Leaders, besides Section Officers—any Detached Post beyond the Piquet line, not forming part of the general line of resistance, should be furnished by the Support, also any examination Post—both these posts will be attached to the nearest Piquet.

The strength of a Support should roughly equal the number of Piquets it furnishes.

SECTION XX.—OUTPOST RESERVE.

1. A special Reserve will only be used when the Outpost force is large, or when the Outposts hold the defensive position selected for occupation by the main body in case of attack, for in this case the position must be held.

2. If no Reserve is specially detailed, the inlying Piquets of the Command that furnishes the Outpost troops will act in that capacity.

3. The strength of a special Reserve will vary with the distance of the Outposts from the main body, the nature of the ground and the vicinity of the enemy.

4. The Reserve must maintain communication with the Supports by means of patrols, signalling, or field telegraph.

5. It may often be advisable to divide the Reserve into two or even more parts, when, for instance, the Outpost position is very extended, or the country intersected or difficult.

6. The troops forming the Reserve should, as a rule, make use of all available shelter.

7. If there is any chance of an attack at dawn or in the evening, the Reserve should move up close to the Supports until the Patrols report that there is no danger.

SECTION XXI.—FLAGS OF TRUCE.

On the approach of a flag of truce the nearest lookout sentry advances to meet it, so as to prevent the bearer overlooking the Posts. Word is at once sent by the Commander of the Observation Posts to superior authority (or Examining Post, if there is one) for instructions.

If permission is given for the flag to enter the line, the individuals bearing it must be blindfolded and sent under escort to the officer commanding the Outposts.

SECTION XXII.—OUTPOST POSITION AT NIGHT.

Outposts at night should, as a rule, be drawn in closer to the camp, but they will always hold the junction of roads or other important lines of approach, as at night, except in very open country, the enemy can only advance by roads and tracks. These should, therefore, be strongly occupied, together with any bridges or fords in advance of the Outpost position.

Alterations in the disposition of the Outposts for night work should be arranged during daylight and be carried out after dusk.

In a mixed force, if the Outpost Cavalry is withdrawn at nightfall inside the Infantry Outposts, Standing Cavalry Patrols or Posts may sometimes advantageously be left out

to the front and flanks to watch important roads, bridges, and fords beyond the reach of the Infantry Patrols.

The first line of resistance at night (irrespective of that given by advanced Standing Patrols at certain important points above described) should be furnished by the Piquet line.

The two Observation Posts of each Piquet will, therefore, fall back at night into a general line with the Piquet which has furnished them at four or five hundred yards from it on either side.

All the Piquets and Observation Posts will thus form the first line of resistance round the Outposts.

The Support at night will generally occupy much the same position as in the day—or it may be drawn a little closer to the Piquets.

SECTION XXIII.—RELIEF OF THE OUTPOSTS.

When a force marches, the Outposts are not to quit their positions until the measures for the protection of the march are complete.

If the force remains halted for any length of time, the Outposts should be relieved from the Reserve (or from the main body, as the case may be) every 24 hours.

The relief of the Outpost Companies or of the whole Outposts is thus carried out :—

The relieving force parades in some central position to receive its orders from the Commander of the Outposts or Section of the Outposts as ordered.

Each Commander of an Outpost Company takes his Company to the position held by the Support of the Company he is to relieve ; and having communicated with the Commander of this Company, sends out his Piquets, and, if necessary, Detached and Examining Posts.

The new Piquets take post alongside the old, and the new Sections split up and take post alongside the Observation Post Eights they relieve, the old and new Leaders of Sections and Eights proceeding to relieve the sentries together. Commanders of the old and the new Piquets will also go round together and make certain that all orders and information have been correctly transmitted. At the same time, the men detailed for Reconnoitring Patrols in both Piquets go out together, so that the new Patrols may be shown the ground, &c., by those who are already acquainted with it.

During the relief the officers going off duty communicate everything regarding their Piquets to the officer who relieves them ; any special orders being handed over in writing together with rough sketches of the ground.

As soon as the Patrols have returned and reported all secure, the old Piquets fall back, and the new ones take over the work.

If the Commander of a Company or of a Section of the Outposts finds that his Support is unduly weak after furnishing Piquets and other duties he will report to Superior authority.

If Outposts are relieved in the morning, the new Outposts should parade in time to receive their Orders, and to march off an hour before dawn.

When Observation Posts are withdrawn at night and re-posted in the morning, the enemy becoming aware of the system sometimes endeavours to ambush the Outposts as they proceed to their positions in the early morning. It is often possible to arrange with the inhabitants to notify the presence of the enemy by a sign such as a ladder placed against a house, clothes hung on a line, smoke from a certain chimney, &c. For doing this the inhabitants should be liberally rewarded.

Outposts—Concluding Remarks.

Officers Commanding units, especially when in immediate contact with an enemy, should consider it their duty to acquaint themselves generally with the orders respecting the Outposts, or other measures of protection against surprise. If when night falls there are no orders or special arrangements made by higher authority, which may occasionally happen when troops are widely separated by fighting, and their command is consequently exposed to surprise, they must take measures either alone or with contiguous troops for the protection of their Section of front towards the enemy, no matter whether every man in their Command sleeps rifle by his side, and no matter of what arm of the service their unit is composed.

PART VIII.

Having described Organization and Drill, Part I.; The Rifle, Skirmishing, etc., Part II.; The preparation and distribution of Orders, Part III.; Scouting and Reconnaissance, Part IV.; Marches, Part V.; the Protection of Troops on the March, Part VI.; The Protection of Troops when halted, Part VII., I now propose to give a general outline of the possible operations of a Brigade advancing in an enemy's country, and acting more or less independently.

SECTION I.—BRIGADIER'S DUTIES.

A Commander before setting out with his force should first receive information somewhat as follows :—

What is known of the enemy's position and movements.

An outline of the work which the officer in command of the main body desires to have done.

Means available for transmitting information.

Arrangements as to supplies.

Brigade in Contact.

We will now assume that a Brigade has advanced into the enemy's country, and its Brigadier has received a report from the O.C. Advanced Guard that the advanced Parties are in contact with the enemy, that he has halted and has gone forward to reconnoitre.

The Leaders in charge of the various sections of the advance will, if they find it impossible to proceed, place their parties on good positions, will personally verify the reports sent into them and endeavour to get more information of the enemy, sending it, when sifted, to the Officer Commanding the Advanced Guard (Vide "Reports").

Before proceeding to reconnoitre, as above, the Officer Commanding the Advanced Guard will arrange for a Staff Officer to remain and receive and forward all messages that come for him.

He will furthermore order up the Support on to a good position, and will bring his guns into action if he has a good target.

The Brigadier on receiving the information will, if the situation requires it, order the main body on to suitable ground, which lends itself to defence.

He will himself reconnoitre and consider the situation, taking care that the mechanism of command follows him at a suitable distance, (Vide "Communication of Orders").

The Officer Commanding the guns will as a rule come with the Brigadier to look for positions for the guns.

Having carefully considered the situation, the Brigadier will decide what to do.

If he finds that the enemy is not in great force he will strengthen his Advanced Companies wherever desirable, at the same time sending a portion of his force to attack the enemy in flank.

If the enemy is in great force and holds on to his position and the Brigadier decides to attack, he will issue instructions for the disposition of the force and the plan of attack.

SECTION II.—ATTACK ARRANGEMENTS.

The principle on which attacks are conducted is the same whether the force engaged be a Company a Battalion or a Brigade.

In planning an attack in force the Brigadier will be guided by the knowledge that owing to the accuracy and long range of modern rifle fire, it will usually be a long and costly process to try to overpower the enemy by a frontal attack alone. He will therefore rather divide up his force, so that with a portion of it he can attack or hold the enemy in front, while with another portion he endeavours to envelope him round either one flank or both flanks, and strike at his rear. Surprise is a most important element in outflanking attacks, so that every advantage should be taken of the ground to conceal this movement.

He will arrange for the watching and protection of his flanks and rear, taking care that he has a stronger force on that flank where the enemy appears to be in greater strength.

He will assign to each Battalion its duty in the operation. If it is to be a portion of the attacking line he will assign to it the section of the enemy's position it is to attack.

Note.—Each Section or Battalion of the attacking Force would probably be divided, according to the general rule, into (a) Firing line with Scouts and Supports; (b) Reserve to the Firing Line and Supports and also to meet Flank attacks. This Reserve would be under control of the C.O. of the Battalion. Commanding officers of Battalions in arranging their Companies for the attack should endeavour to reinforce from the same unit as long as possible.

In very open ground the distances between the various lines of advance should be greater than in country affording cover, in such ground it is often advisable to start off with a very strong firing line.

He will retain a portion of the force as a Reserve under his own orders to meet contingencies.

He will draw attention to any positions or peculiarities of ground he intends to turn to account during the advance, and in cases where Machine Guns are used in batteries he may indicate the positions to be occupied by them.

The Brigade Signalling Officer, after hearing the plan of attack, will arrange for a complete system of signalling between all portions of the force.

Note.—When an attack is made on a strong position by a force unable to advance on a large frontage it is especially necessary that a strong covering party should be provided, as the enemy having nothing to fear on his flanks, should he repel the attack will most assuredly advance and endeavour to turn the repulse into a disaster.

Before and during the fight the Brigadier's position ought to be one where he can obtain an extensive view, and also be sufficiently central for the quick receipt of reports and the despatch of orders. He ought to indicate his position to officers commanding, and if he moves from it temporarily, should leave a staff officer to receive and transmit orders. If he permanently changes his position he should at once inform C. O.'s of his new position.

After a successful attack important points won should be placed in a state of defence. Though it is difficult to carry a full complement of entrenching tools, this does not alter the fact that in modern war the rifle and cover against an enemy's bullets should always go, as much as circumstances permit, hand in hand. Whether cover be natural or artificial, it must always be the helpmate to the rifle.

SECTION III.—THE PURSUIT.

No victory is complete unless it is instantly followed up, the pursuit is best performed by Cavalry but a combination of Infantry and Cavalry can often be employed with great advantage, the general lines on which it should be carried out are that all available troops should be employed, and no time should be allowed the enemy to rally, to take up a fresh position, or to form rear guards. Every gun should be brought into action at decisive range ; and every available man be used to head off the retreat, to capture the artillery, and to effect the surrender of the enemy.

Notes for Leaders in Attack.

It is necessary that Leaders should clearly understand the intentions of the Commander of the Force, and explain them to their subordinates. Sufficient instructions must be given, but without unduly burdening memories and fettering initiative.

In taking his firing line into action a Company Leader must not merely give the distance and nothing more. His glasses should be out, and those of his subordinates, to note the places and ranges where his fire will have most effect ; his whistle should be ready to signal to his men to cease fire, whether to correct their range, or to steady and prevent them from getting out of hand, or again to concentrate fire on certain points of attack.

Many young soldiers are inclined to be unsteady when under fire for the first time, not because they are afraid, but because their nerves are highly strung. The officer's voice, coolness and example have a most reassuring effect.

The Company Leader ought to be near enough to his Unit of Direction to get quickly to the front in order to study the country and see with his own eyes what is taking place. He is then in a position to judge how and when to re-inforce, and also the best method to adopt in making the next advance.

It is the duty of a Company Leader to co-operate with the other attacking Companies and watch for opportunities to support their advance.

He must take every opportunity of rallying and re-organizing his own Company.

The foregoing instructions to Company Leaders apply equally to Section and Eight Leaders who must carefully consider and enter into the spirit of them. No definite rules can be laid down, but the following are points which every leader will have to consider and remember :

He must look out for cover ahead, make up his mind as to the best way to get to it, and lead his men to it.

He must see that the general direction of the advance is kept.

He must keep firing in hand (no wild shooting), point out the target, get the range, concentrate the fire.

He must keep his eye on the ammunition—he must not run short of it.

He must see that signals and orders are passed *quickly* and *correctly*.

He must co-operate with the remainder of the Section or Company.

SECTION IV.—THE DEFENCE.

It is now necessary to consider another possible phase in connection with the Brigade whose progress we have been following ; it has, we will assume, beaten a considerable force of the enemy, has got possession of an important railway centre and one or more bridges across a great river, and in accordance with orders, is holding the captured position until reinforcements arrive. Messages, however have come in from Reconnoitring Patrols to report that large forces of the enemy are on the march to retake the place.

The Brigadier has now to arrange for Defence instead of Attack, and of course he will bear in mind that the

general principles governing the latter apply equally to the former. Therefore, amongst other things, the line of defence must be divided into convenient Sections, each having its Firing Line, its Supports, and its Reserve. Also, there must be a general Reserve, and there must, if possible, be provision for counter attacks. Also, the Position should be entrenched and strengthened in every possible way and lateral communications provided. The Brigadier would also enjoin the provision of easily accessible stores of Water and Ammunition for the use of the various Sections of the Defence. He will also see to it that Patrols are pushed well out, and that generally every precaution is taken which would be taken by a man who having studied his profession is wise before the event rather than after it.

Notes for Leaders in Defence ;

Subordinate Leaders in the Defence will, besides being acquainted with the general principles on which a Defence is conducted, see to it that the Firing Line and the entrenchments are well concealed, that ranges are taken, that ammunition and, if possible, water, is plentiful and handy, that there is no waste of ammunition; that if opportunities for local counter attack present themselves, they are promptly made avail of, that, all ground which the enemy might use as cover to conceal his advance is specially watched.

SECTION V.—RETIREMENTS.

There are few military movements more difficult to carry out successfully than a retirement.

The principle on which retirements should be made can be exemplified as follows :—

For example, a Battalion of Infantry has received orders to force back the enemy's outposts and obtain information;

the object having been achieved, the order is given to retire. The enemy, however, are gathering in force and threatening the retirement.

Some position with a good field of fire on the line of retirement, is selected by the Commanding Officer and pointed out to Company Leaders.

Probably a couple of Companies would be sent back to hold this, the flanks of the retirement being protected by parties who have orders to conform to the movements of the main body,

Directly the position in rear is occupied the remaining Companies would retire on it at a smart pace, leaving say an Eight out of each Company behind with plenty of ammunition, and with orders to keep up a heavy fire to deceive the enemy.

Directly the retiring Companies are out of range of effective rifle fire, these men would retire quickly.

Smaller and larger bodies will effect retirements on the same principle, Artillery and Machine Guns covering the retirement from where they can do effective service without running the risk of capture.

Retirement of a Force by Day.

Unless effected under cover of a sufficient Rear Guard, a retirement within range of an enemy by day must result in great loss of life if he pursues vigorously. It is far better to leave the force where it is until nightfall, and then to slip away covered by a small rear guard. The reason for the loss of life in retiring by daylight is obvious.

If men are being shot at they will scratch themselves into the ground and get cover. When they move to retire, the cover is gone, and the enemy's opportunity commences.

SECTION VI.—MACHINE GUNS.

A sufficient number of machine guns should, when possible, be attached to every force acting in the field.

Every knoll or point of vantage which commands the enemy's position may be well utilized for the action of a machine gun.

Machine guns are very useful with advanced and flanking companies in clearing away the enemy's scouts.

During an action they will form a most valuable addition in carrying out the general scheme of attack by pouring in lead at the right moment—especially is a stream of bullets helpful when the troops they support are advancing across open ground. On outpost and other detached duties, as well as for the purpose of temporarily holding a position which may have been gained, or for holding a defile, or for the protection of bivouacs, their action will be extremely useful.

Officers in charge of machine guns must have dash and judgment in handling them. They should not wait *to be ordered* to come into action, but should suggest to the commanding officer places where the guns could be taken and used to the best advantage.

A machine gun with its light equipment can always fall back so rapidly that it will generally be better to leave it in action as long as possible and until its preservation makes retreat an absolute necessity.

In case of a repulse, machine guns properly handled in well selected positions should make it very difficult for the pursuit to push home its attack ; and under shelter of their fire, time may be gained for the arrival of reinforcements or for reforming.

SECTION VII.—CONVOY ESCORTS

All Convoy Escorts must have Advanced, Flank and Rear Guards, with Scouts well out so as to give timely warning of attack.

The officer in command of the escort is where he can best superintend the movements of the whole body.

The escort must always conform to the pace of the column. Wagons conveying gunpowder or ammunition should never move out of a walk. Ammunition columns should never halt in towns or in the vicinity of fires, and the escort should not in any circumstances be allowed to smoke.

Escorts to prisoners or ammunition always march with rifles loaded.

The escort or guard actually with the baggage, if sufficiently strong, is formed as follows :—

(a) A portion immediately in front and in rear of the convoy. If the convoy is of great length a party should also march in the centre.

(b) Two men per wagon, one on each side, to give assistance, apply the skid, scotch the wheels, &c. These men if dismounted must not place their rifles on or hang on to the wagons. During a long march they should be relieved from time to time.

(c) The remainder should be placed so as best to meet an attack.

The arrangements for the protection of a convoy at night will be similar in principle to those which relate to the protection of troops when halted.

SECTION VIII.—NIGHT OPERATIONS.

General Rules.

1. As a means of outmanœuvring an enemy, of surprising him by an unexpected transfer of troops on the field of battle, of massing unexpectedly against a weak point, and of threatening his line of retreat, night operations are of value, both in attack and defence.

2. Night attacks may be made during the darkness, but they are more usually so timed that the assault is delivered just as the light begins to break. In neither case should such an operation be undertaken without first reconnoitring as thoroughly as possible the ground over which the attacking force must pass.

3. Reconnaissance from a distance is insufficient. The officers who are to guide the force, even if well acquainted with the ground, should traverse as much of the route as practicable, both by day and by night. It is important to ascertain whether there are obstacles near the position, or works which would hinder the advance of the attacking troops.

4. An attack delivered during darkness would usually be made by small parties, to seize an outpost position or some isolated post, to surprise an ill-trained and unvigilant enemy; or, in siege warfare, to capture advanced works and trenches.

5. If an enemy is vigilant and well posted, nothing but extreme necessity can justify an attack at night on a large scale. Large bodies would usually be moved under cover of darkness, and the attack delivered at dawn.

Night Operations by Large Bodies.— Preliminary Measures.

1. A position of assembly must be selected beforehand where the normal march formation is to be abandoned. The distance of the position of assembly from the position to be attacked depends on the nature of the country, the enemy's vigilance, the possibilities of discovery, and the size and composition of the attacking force.

2. It is also necessary to decide beforehand the place where the columns are to deploy for attack. This place is termed the *Position of Deployment*. It should not be less than 1,000 yards from the point which it is intended to attack.

In certain circumstances, *e. g.*, in very open and level country, the position of deployment may coincide with the position of assembly.

3. Both the position of assembly and the position of deployment should be easy to recognise. From the former position to the latter, and from it again to the points selected for attack, compass bearings should be carefully taken and noted. The distances between these points must also be ascertained as accurately as circumstances admit.

4. It may sometimes be possible to mark for some distance, by means of stones painted white, empty biscuit tins, or otherwise, the line of march of the attacking column, or columns, without exciting the enemy's suspicions.

5. If two or more points are to be attacked simultaneously, care must be taken, in selecting the positions of assembly and the positions of deployment, that the various forces advancing from them will not converge towards one another to such an extent that there is a danger of their meeting or crossing one another.

6. A distinguishing mark should be ordered for the troops, and a watchword decided on. The commander of the force should wear an easily distinguishable badge.

7. The materials necessary for surmounting or cutting through obstacles, and for entrenching the position when captured, must be arranged for.

8. Rockets may usefully be employed as the signal for assault.

9. In siege operations, scaling ladders, light bridging material, haybags, fascines, gabions, &c., must be carried by parties specially detailed.

Distribution of Attacking Force.

1. The attack may be made on two or more points of the enemy's position, and in this case the attacking force will be divided into two or more columns, each with a distinct objective. The assaults should be delivered simultaneously.

2. The weapon used in the night attack is the bayonet. Infantry, if available, will therefore, usually deliver the assault. Mounted troops and artillery should be kept separate, and should not be allowed to come in contact with the enemy until daybreak.

3. Each attacking column should have a reserve, which will follow it at about 400 yards. If there is a check, this reserve must be used to storm the position.

A detachment of engineers, provided with entrenching implements, should accompany the reserve.

4. The general reserve will be about half a mile further back, and behind it will probably be the mounted troops, the artillery, and the reserve ammunition. The machine guns, ammunition mules, led horses, and the whole of the first line transport of all units taking part in the attack will usually be kept in rear of the general reserve.

No vehicle should, as a rule, be allowed in advance of the general reserve.

The Attack.

1. Before the troops move off from the position of assembly, it is essential the orders should be clearly explained to all ranks, so that everyone may know:—

- i. The object in view.
- ii. The formation to be adopted at the position of deployment.
- iii. The part he has to play.
- iv. His action is case the enemy is not surprised.

2. The following instructions should be repeated two or three times to the men by the company officers :

- i. No one is to load without a distinct order.
- ii. Until daylight, bayonets only are to be used.
- iii. Absolute silence is to be maintained until the moment of assault.
- iv. If obstacles are encountered, the troops will lie down till a passage has been cleared.

3. Every effort must be made to ensure the maintenance of lateral communication between different columns, so that the assaults may be delivered simultaneously. Communication between columns, and with the reserves and the general reserve, is best secured by means of mounted officers.

4. If the force has deployed for attack at more than 1,000 yards from the point to be attacked, it should be halted for the shortest possible time when that limit is reached, to enable the formation to be corrected before the order for the further advance is given.

5. If hostile patrols, scouts, or advanced parties are encountered, every endeavor must be made to destroy or capture them without noise. They must be rushed in silence with the bayonet without a moment's hesitation.

6. If, after the position of deployment has been left, the enemy opens fire, all ranks should understand that it is their duty to press forward, cost what it may.

In certain circumstances, however, it may be quite useless, if a surprise cannot be effected, to subject the troops to the heavy losses entailed by an assault. In this case

the men will be ordered, directly the enemy opens fire, to lie down, and the reserve should take up a position whence it can cover the retirement of the attacking troops.

7. If an assault at dawn succeeds, the mounted troops should push forward with all speed and endeavour to get round the flank of the retreating foe. If it fails, they will do their utmost to protect the retiring infantry while the artillery takes up a rallying position.

Formations and Protection.

1. At the position of assembly, the normal march formation will usually be changed for a preparatory formation which will bring the force more directly under its commander's control, and from which deployment for attack will be easy.

It is important that the formation adopted should facilitate the guidance of the troops across country.

Infantry brigades will, as a rule, be most suitably formed in column of battalion quarter columns or masses.

2. Patrols, under officers, at about 100 yards in advance, and on the flanks of the column, and connected with it by connecting links at close interval, usually afford the best protection to troops advancing across open country in a preparatory formation.

3. It is not safe to count on troops moving in a preparatory formation faster than a mile an hour.

4. At the position of deployment, the assaulting force and the reserves will be formed on a broad front.

For a brigade or battalion, a suitable formation is two lines of half-battalions, at from 50 to 100 yards distance, or four lines of half-battalions in single line.

Guiding Columns by Night in Open Country.*

1. The route should be fixed by compass bearings, the points where any change of direction is necessary noted, the distances between clearly defined, and, when practicable, easily recognisable points measured.

2. The general direction can be effectively kept by means of stars. It is, therefore, important that an officer should practice taking bearings by the stars.

3. The officer leading the advance must be sufficiently far in advance of the troops to prevent the needle of his compass being affected by the rifles. Connection between him and the column should be kept by means of men, following one another at short distances.

4. An officer, other than the one guiding the column, should invariably be detailed to check the distance marched.

5. When troops are in column, distances from front to rear are best preserved by means of knotted ropes; intervals, by the extension of men.

* If luminous paint is available, it may be used to advantage as follows:—

- i. Compasses should be prepared with it; those with a movable bar, which can be set to the required bearing, are the best.
- ii. A rough tracing from the map placed over a piece of cardboard prepared with luminous paint is of value.
- iii. Connecting links as well as commanders on the flanks of infantry columns may with advantage be provided with luminous discs.

Orders for Night Operations.

1. The following are the points to be attended to in framing orders :—

- i. Time of assembly at, and departure from position of assembly. Description of position of assembly.
- ii. Order of march, and formations on leaving the position of assembly. Distances and intervals. Maintenance of communication.
- iii. Compass bearing of the route.
- iv. Time and duration of halts.
- v. If possible, the position of deployment should be described, and its distance from the position of assembly and from the point selected for attack notified.
- vi. Formation to be adopted at the position of deployment.
- vii. Special instructions for the assault, and the signal for it.
- viii. Action in case the enemy opens fire.
- ix. Action in case the enemy attacks, either in front or from the flanks.
- x. Distinctive marks and watchword.
- xi. Place of the commander at the position of assembly, during the march thence, and at the position of deployment.

2. Orders will usually be communicated beforehand to those officers only from whom action is required, so that timely arrangements may be made. Until the troops reach the position of assembly, no more should be made known to them than is absolutely necessary. It may be advisable, in order to deceive spies, that misleading orders should be given out.

SECTION IX—SUPPLY AND TRANSPORT OF S.A. (.303-INCH) AMMUNITION IN THE FIELD.

Supply and transport of ammunition in in the field.

Service ammunition and Battalion reserve.—A battalion takes with it into the field, in regimental charge.

Service	}	100 rounds per rifle, carried by the soldier ;
Ammunition.	}	4,000 rounds for the machine gun.
Battalion	}	2 boxes (1,100 rounds to the box) on each two pack animals ; and
reserve.	}	16 boxes in each of four S.A.A. carts.

Officers commanding battalions are responsible for the ammunition in regimental charge.

They will arrange for the replenishment of this ammunition at every favourable opportunity. They are responsible that the ammunition in men's pouches is complete, and that when ammunition is expended, pouches are refilled with the least possible delay.

On the march, the two pack animals and two of the S.A.A. carts will follow immediately in rear of each battalion ; the remaining two S.A.A. carts of each battalion will be formed into a Brigade Reserve and follow in rear of the Brigade.

Each brigadier will detail a mounted officer to take charge of the brigade reserve of S.A. ammunition.

Divisional and Corps Reserves of S.A. Ammunition.—One S.A.A. section is attached to each of the two brigade-division ammunition columns, C.F.A., with the divisional artillery. These sections form the divisional reserve of S.A. ammunition (77 rounds per rifle, and 8,800 rounds per machine gun). In action they may be detached from artillery ammunition columns, brought together in some suitable position, or distributed between brigades, as the General Officer Commanding division may think advisable.

In the ammunition park is carried a corps reserve of 55 rounds per rifle, and 9,000 rounds per machine gun.

The divisional and corps reserves are in artillery charge.

General arrangements in attack.—One pack animal and one S.A.A. cart will follow each half-battalion, as long as hostile fire will permit; the pack animal in rear of the supports, the cart in rear of the reserve.

The brigade reserve of ammunition will follow in rear of the centre of the brigade, or as the General Officer Commanding may direct.

Officers commanding battalions and officers in charge of brigade reserves of ammunition will keep themselves mutually informed of each other's position.

When a S.A.A. cart with a battalion is emptied, it will be sent back to the brigade reserve, and will be replaced by a full cart. As soon as there are four empty S.A.A. carts with the brigade reserve the officer in charge will send a message as follows to the officer in charge of the divisional reserve: "Send up four S.A.A. carts to the —th brigade." It is, however, unnecessary to wait till four carts are empty, if ammunition is urgently required.

On the arrival of the carts from the divisional reserve, the horses will be unhooked and changed, and empty carts sent back to the divisional reserve.

In the event of a brigade in action being ordered to advance through woods or over broken ground where communication cannot be maintained, the S.A.A. carts of the brigade reserve may be distributed between battalions, and the divisional reserve would conform to the general movement.

In the case of a battalion being detached to any distance a similar course would be pursued, a brigade reserve being re-formed as soon as possible.

A battalion allotted as corps infantry draws on the S.A.A. section attached to the brigade-division ammunition column C.F.A. with the corps artillery.

Instructions for the officer in charge of the brigade reserve of ammunition.

- (i) He will as soon as possible open up communication with the divisional reserve.
- (ii) A mounted orderly will be sent to him from the divisional reserve to be used only for the purpose of communicating with the divisional reserve.
- (iii) The earliest opportunity is to be taken (when four S.A.A. carts are empty, or sooner if necessary) to fill up empty carts from the divisional reserve. The brigade reserve should be regarded as available for the brigade generally, and also in case of necessity it will supply ammunition to any troops engaged.
- (iv) Men and horses belonging to the brigade reserve are not to be sent to the divisional reserve.

Men and horses belonging to the divisional reserve are not to be sent further to the front than the brigade reserve, except in a case of emergency.

- (v) Empty S.A.A. carts are to remain with the brigade reserve until they are replaced by full ones.
- (vi) Receipts prepared by the officer in charge of the divisional reserve will be signed by the officer in charge of the brigade reserve for the number of full carts received by him.
- (vii) After an action or during a pause in the engagement all deficiencies of ammunition must be made good from the divisional reserve.

Battalion arrangements for issuing extra ammunition.—

Each company commander will detail one non-commissioned officer and two privates to act as ammunition carriers (if the company is strong, three privates should be detailed). Only men of strength and activity should be selected for this duty, the importance of which cannot be overrated.—

Whenever a serious engagement is imminent, officers commanding battalions will issue to the men 50 rounds from the S.A.A. carts, so that, if possible, every man shall carry 150 rounds on his person. The extra ammunition should generally be issued before leaving the halting place of the previous night.

During an action every opportunity will be taken for supplying ammunition to the firing line by sending some up by carriers or with reinforcements. The carriers bring the ammunition from the pack animals (or from the S.A.A.

carts) in canvas ammunition bags, and distribute it to the men in the ranks. The bags, when not in use, are carried one on each pack animal and eight on each S. A. A. cart. The loads are not to exceed 600 rounds to each carrier.

When more ammunition is required by the firing line it will be taken forward by any men at hand, acting as carriers.

The carriers will move direct to the companies for which they are destined. If there is a difficulty in their getting back they may be retained in their ranks till the action is over.

It is the duty of section and squad commanders to make sure that all ammunition from the killed and wounded is collected and distributed.

The system of carrying ammunition by hand, here provided for, is not to prevent every endeavour being made to push the S. A. A. carts as far forward as practicable. They ought, in ordinary circumstances, to get within 1,000 yards of the firing line, and in broken and undulating ground considerably nearer. With pack animals, it should be practicable to get within 500 yards of the firing line.

The immense importance of having a supply of ammunition out of sight of the enemy, and yet within easy reach of the firing line, will justify great risks being incurred in getting to such a position.

PART IX.—MAPS AND SKETCHING.

The soldier must be trained to observe ground always from a military point of view and especially with regard to its capabilities in relation to the working of troops, and he should be able to compile without loss of time, a clear, concise, and practical report, and be able to execute a quick, rough sketch to accompany the report. The object of the sketch is to make the report clearer and shorter, therefore nothing should be written in the report which is clearly indicated on the sketch, and vice versa.

Rough sketching by observing the general direction of advance with a magnetic compass and noting the same in a pocket-book, gives excellent practical results. The soldier should endeavour to make himself proficient in the following points :

To understand the conventional signs :—

To execute rough sketches of roads, rivers, railways, positions, a general line across country, &c.

To measure distances on a map by scale.

To write out from a map, clear directions, sufficient to enable a man to find his way from one place to another.

To identify villages, farms, hills, &c. shown on a map.

To find his way from one place to another in an unknown part of the country by means of a map only.

To make an intelligent written report on any given length of road.

SECTION I.—FIELD SKETCHES.

The sketch should be drawn roughly to scale, the scale being indicated both by drawing and in words.

The North and Magnetic North should always be indicated.

A table of Conventional Signs used in military sketches is given herewith.

A landscape sketch in outline, however rough, will often be of the greatest value. Ranges and distances should be indicated on such sketches.

Conventional Signs.—The words in italics are descriptive only and should not be used in sketches ; except in the case of describing materials of bridges, and in describing lands as “cultivation grass,” “standing crops,” &c.

Magnetic Declination at the following places is as hereunder :—

London, Ont	2°	W.
Toronto	7°	W.
Kingston	10°	W.
Ottawa	12° 30'	W.
Montreal	15°	W.
St. John's, P.Q	16°	W.
Quebec	18°	W.
Fredericton	21°	W.
Halifax	21° 30'	W.
Winnipeg	12°	E.
Victoria	22° 30'	E.
Charlottetown, P.E.I.	24°	W.

The Representative Fraction.

The proportion which a map bears to the country represented is expressed by the representative fraction, for instance :

$$R. F. \frac{1}{63360}$$

which means that one mile, or one yard, or one foot, or one inch, of the drawing represents 63,360 miles, yards, feet or

CONVENTIONAL SIGNS

Houses..... ■
 Forge..... F Names of Important Cities
 Light House... LH and Titles of Plans.... HALIFAX
 Windmill..... X
 Bridges..... ≡ All other Printing thus.. Woodstock.
 Churches,

(without Spire or Tower) + (with Spire) ...
 (with Tower) ■

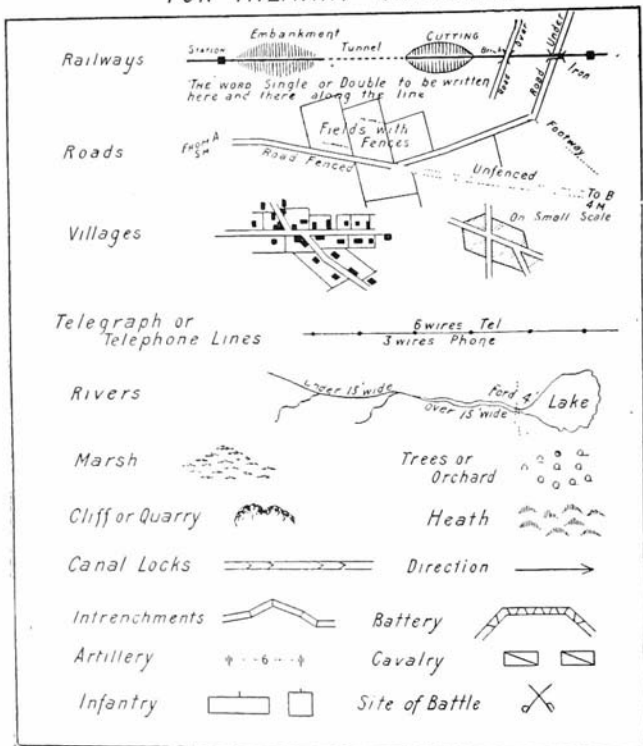
Post Offices, hotels, school houses, sawmills, grist-mills, cheese factories are distinguished by the conventional sign for "Houses" and the letters P.O.; H.; S.; S.M.; G.M.; C.F. thus:- ■ P.O.

Colors used:

Water.....	Blue	
Good Main Roads.....	Brown	}
Woods.....	Green	
Cultivation.....	Yellow	
Wooden Buildings.....	Black.	
Stone or Brick Buildings.....	Red.	



FOR MILITARY SKETCHES



inches of the country. But to speak of a map being on a scale of 1 inch to 63,360 inches would be cumbersome, so we treat the fraction thus :—

1 inch (on paper)	=	63,360 inches.
1 " "	=	5,280 feet.
1 " "	=	1,760 yards.
1 " "	=	1 mile.

therefore, R.F. $\frac{1}{63360}$ = a scale 1 inch to a mile.

The use of the Representative Fraction is to enable the scale of any map to be determined provided the Representative Fraction is shown on it. Thus: the map may be a Russian or German map and the scale of measure not understood by the owner; but, if the R. F. is shown, as, say for example, $\frac{1}{200000}$ this means that 200,000 units of distance on the ground are represented by one unit of the same distance on the map (whether the unit is an inch or a foot, a metre or a verste is immaterial) and a scale can easily be constructed from this information.

Simple and Quick Method of Sketching.

The following is a simple and effective method of making a quick sketch on service. Instruments required, compass, pencil, note book or paper :

Suppose you are standing on high ground and the country to be sketched lies in front and to either side of you. The position where you stand is first marked on the paper by a dot (A). Next, with the help of the compass find the direction of the magnetic north; fix some object on this line, such as a tree, house, etc., draw a line connecting this object (B) with the dot (A), which marks your position. This is your magnetic meridian. The compass

can now be put away. Having set the map by pointing the line forming the magnetic meridian to the tree, house, or whatever the object may be which you have marked on this line, proceed to take rays from the dot (A) to all the surrounding objects. Each of these rays should be marked, "to farm," "to railway bridge," etc., etc., and measured off afterwards to scale.

Instead of pacing the distances, they can be roughly measured by the following method: Close the hand and hold up the thumb at full arm's length, close one eye and cover the object, the distance of which is to be measured. Now open your eye, and, still holding the thumb and arm steady, close the other eye. Your thumb will appear to have travelled laterally from the object. Judge the distance laterally between your thumb and the object and multiply by ten. If this has been judged correctly you will have the distance fairly accurately at which you stand from the object. Thus, if you judge that your thumb has moved to a spot 100 yards from its original position, you are 1,000 yards from the object.

As regards the hills, judge 100 feet contours and show the shape as much as possible.

For scale, suppose one inch or two inches to represent a mile.

By this method a useful sketch can be made with a little practice in ten minutes.

It does not require a draughtsman to make a military sketch. Accuracy of description is the chief essential to be aimed at, and often the roughest sketch, containing accurate details, is of far more value than the neatest and most artistic drawing in which accuracy has been sacrificed to the picturesque.

SECTION II.—TO FIND THE WAY.

Making use of Maps on the Ground.

First study the map thoroughly, noting its scale, the distance contours are apart, whether the country is hilly, rolling, or flat. Observe the direction of the true North and magnetic variation, the position of streams, rivers, or lakes and the direction of ridges, hills and general lie of the country. A map is always published with the True North Point on it. The Magnetic North varies from the true North in different localities. *This should be ruled in faint parallel lines across the map, preferably at one or two inches apart.*

NOTE.—The sides of most maps point approximately or exactly true North.

There are three methods of finding the way by map :—

1. With map and compass.
2. With map and watch.
3. With map alone.

(a) With Map and Compass by Day.

Sergeant Brown with his Company at Millbrook has orders to take a message to Brigade Headquarters at Port Hope. He has a map which he has ruled as above and also a compass.

Before starting he puts his map on the ground and places his compass with its centre over Millbrook, shifting his map about under the compass till the lines showing the Magnetic North on his map are exactly parallel with the Compass Needle, taking care that the North end of the needle

points exactly towards the North Letter on the compass. He sees Port Hope marked on the map, he takes a straight piece of stick and places it across the centre of the compass and finds that the direction of Port Hope is 80 degrees East of North. He then, lying on his stomach, takes some land mark in the direction 80 degrees East of North, as for instance a distant hill, a church, etc., and starts on his journey in that direction.

If compelled to make a detour from the original direction, he takes out his map, finds his present position on it by reckoning the distance he has come and the compass bearing of his route, and repeats the process as above, placing his compass this time over the place he has reached; he will then proceed in the new direction on his journey to Port Hope.

(b) With Map and Compass by Night.

If the night was dark when Sergeant Brown started and landmarks were not visible but stars were visible he would proceed exactly as in (a) but in this case, as he could not distinguish landmarks, he would raise his stick up from the compass, keeping it still in the same general direction until it pointed to some star, he then would walk in the direction of that star for an hour, at the end of the hour he would place the map on the ground, identify his position upon it as in (a) and again proceed as in (a), taking up a line on a fresh mark in the heavens.

[NOTE—In some countries it becomes necessary to keep to the roads, as it is difficult in a great many cases to cross country, a road is therefore the shortest and quickest route from one point to another. In cases of this kind

an orderly would "set" his map as before, but would ascertain the shortest route by road and proceed by it.]

With Map and Watch.

Knowing the position of the sun at the different hours of the day at the various seasons of the year, Sergeant Brown would at three o'clock, by his watch, be aware that the shadow of the sun was approximately N.E. This knowledge would enable him to find the direction of true North, and by placing his map with its top towards that point he could by laying his stick over Millbrook and Port Hope, find the direction in which he should go.

With Map Alone.

If any conspicuous point is visible, say a village church, Sergeant Brown places his map on the ground and turns it about until the village on the ground is on a prolongation of an imaginary line drawn from the position he is on, on the map, through the village on the map. This will set the map, and the North point can be fixed by reference to the North point on the map. When once satisfied that the map is correctly "set," the direction can be taken as in Method (a.)

To Find the true North by Watch.

Point the hour hand towards the sun. The straight line joining the centre of the Watch and a point midway between the hour hand and the figure twelve is approximately North and South.

PART X.—MISCELLANEOUS.

Field Fortification.

Infantry must always be prepared to entrench themselves whether the force be large or small. By taking timely and proper precaution to strengthen the post it occupies, a small force has often rendered service of inestimable importance.

The following are some of the means by which the artificial strengthening of a post or position is accomplished :—

By the hasty preparation of walls, fences, houses or other existing cover for defence.

By the provision of cover for the firing line by means of trenches or breastworks.

The following points must be remembered in the preparation of cover :—

24 inches of loamy earth, 42 inches of clay or soft wood, 20 inches of sand, 25 inches of hard wood, 9 inches of brick wall, 6 inches of small stone between boards, $\frac{3}{8}$ -inch wrought steel, are proof against rifle or shrapnel bullets at almost any range.

The Maximum heights over which fire can be delivered are :—

Man standing	4 feet 6 inches.
“ kneeling	3 feet.
“ lying down	1 foot.
Machine guns	3 to 4 feet.

Points to be considered in preparing a post for defence :—

1. Prepare position and cover for firing line and supports, by entrenchments, loop-holing walls, &c.
2. Clear a field of fire.
3. Make communications.
4. Prepare obstacles.
5. Assign each unit to a certain portion of the defence.
6. Secure and arrange for the easy distribution to all portions of the defence of an ample supply of water, food and ammunition.

Walls.—Points to be remembered :

1. Notching easier and quicker than loop-holing.
2. Provide head cover.
3. The enemy must be prevented from using loop-holes should he succeed in closing on the wall.

Defence of Houses.—Following points must be attended to :

Barricading doors, windows, making loop-holes, arrangements for storing ammunition, water and food, latrines, accommodation for wounded.

Earth Works.—Fire Trenches.

The object of a Fire Trench is to give cover to the men using it. The trench is of no use unless the ground in front can be seen and swept with rifle fire by the defenders.

In ordinary easy soil, 45 cubic feet in 3 hours with entrenching tools, and 60 cubic feet with ordinary tools, is the limit of a man's digging power.

These rates hold good up to a maximum horizontal throw of 12 feet combined with a lift out of a trench 4 feet deep.

By making trenches traversed and recessed (when time permits) protection is given from oblique and enfilade fire, and also the effects of bursting shells are localized.

In order to conceal the position of trenches, high parapets should be avoided, the earth taken out to form the trench being scattered, and low parapets with sand bags, sods, &c., for head cover constructed. Parapets should be covered with bushes, grass, &c., to conceal their position as far as possible. Sods, lumps of earth, &c., should be used for revetting the interior slope which must be made as nearly vertical as possible.

Loop-holes can be made of sand bags, sods, pieces of iron rails, or a furrow left in the parapet and roofed with pieces of plank and earth thrown on top. Boxes filled with coal, stones, &c., can also be utilized.

Field Redoubts.—The Dimensions of Field Redoubts should be such as to be able to be thrown up in 12 to 24 hours. They do not necessarily need high or thick parapets. A shelter trench parapet may do.

The Interior must be unseen from any ground within moderate ranges.

They are useful for defending bridge heads, detached posts, &c.

Obstacles.—Obstacles judiciously placed, that is, close under the rifle fire of the defender, and in places unknown to and unexpected by the attacker, add very much to the strength of a defensive position.

Wire entanglements.

Abattis.

Wire entanglements, if possible barbed wire, should be used. Stakes may be from 18 inches to 4 feet high, placed about 6 feet apart. High wire entanglements require about three times amount of supplies and time to construct compared with low ones.

Abattis are formed of limbs of trees firmly picketed down and interlaced, the branches being pointed and turned towards the enemy.

For further information, vide Instructional Placards for Canadian Militia—Elementary Field Engineering, 1903.

Demolition of Railways and Telegraph Lines.

As a rule, the time and means at the disposal of Cavalry or reconnoitring Infantry will only admit of the partial interruption and destruction of railway and telegraph lines. Neither railway nor telegraph lines should be damaged without special orders, and these should always specify the nature of the damage, whether to be partial or as complete as circumstances will permit. Whenever possible the work should be done in such a way that it will not be easily detected.

To destroy railways.

1. Remove fish plates and shift position of rails slightly, or cut the sleepers under the rails and simply replace the latter over the hollows thus made.

2. In very hot weather insert wedges between junction of rails; the metal rails expanding during the day from the sun's heat will cause deviation in the line in all directions.

3. Cut the water supply for engines, by destroying tanks, pipes, leather hose, &c.

4. Remove portions of the line at intervals, especially at curves.
5. Bring about a collision or run a train off the track.
6. If plenty of men are available, tear up rails and sleepers, burn the latter, heat rails in the fire and twist them by inserting points of picks in the holes at end of the rails.
7. Destroy rails, culverts and bridges with explosives.

To destroy Telegraph Lines.

1. Cut a wire and replace it by a strong piece of cord or leather of same diameter.
2. Establish a "leak" by connection of the conductor to earth. (This may be best done along the pole.)
3. Establish a contact between two wires.
4. If time permits poles may be blown or cut down and burnt. As much of the wire as possible should be cut into small pieces, or twisted, and hidden.

Artificial faults, to be successful, require to be skilfully made. In nearly every corps officers will find men who have in some way or other been connected with telegraph service, and this knowledge may be turned to good account.

If a station is to be taken, the first thing is to interrupt the railway and telegraphic communication on both sides; the next, to approach as close as possible under cover but rapidly, and endeavour to surround the place, seize the officials and registers, and place outposts. Cartridges of guncotton or dynamite can be placed so as to destroy the line in case the enemy attacks before the operation is completed.

For further information *vide* Instructional Placards for Canadian Militia Elementary Field Engineering, 1903.

Guards.

General Rules :

Guards will not turn out after retreat or before reveillé except at tattoo, on the approach of troops, in cases of alarm, or to receive grand or visiting rounds. They will not pay any compliments during this period except to grand rounds, to whom they will present arms.

Sentries will not present arms to any officer or armed party (except grand rounds) after sunset ; but as long as they can discern an officer, they will come to their front on his approach, and stand steady with the rifle at the slope until he has passed.

To all armed parties sentries will present arms and the party will return the compliment by drawing and carrying arms.

To all unarmed parties a sentry will order arms.

Guards, including reliefs, rounds, and patrols, will march with arms sloped. In wet weather arms will be carried at the Secure.

Sentries are to walk with their arms at the Slope.

Relieving or Posting a Guard :

1. When the ground admits, a new guard will advance in line, towards the front of the old guard, and will be drawn up, if possible, fifteen paces in front, or when not possible, six paces from the left of the old guard.

2. As soon as this is completed, the old guard will present arms, and the new guard will return the salute.

3. Both guards will in like successive manner slope arms, order arms, and stand at ease.

4. The guard will then be told off and the first relief sent out. When the first relief of a new guard is sent out, a corporal belonging to the old guard will accompany it, to bring in the relieved sentries. If the relief moves in line, he will be on the left flank, if in column of ones, twos or fours he will be at the head of the leading man or men. As soon as all the sentries are relieved, the two corporals will change places, and the corporal of the old guard will assume command. While the relief is marching round, the commander will take over the property in charge of the guard according to the list in the old guard report.

5. When the reliefs have returned, and all the men of the old guard have fallen in, both guards will be called to attention, and ordered to slope arms.

6. The old guard will then move off in column of ones, twos, or fours, the new guard presenting arms.

7. When the old guard is clear of the ground, the new guard will slope arms, and if not already there, will move on to the same

alignment occupied by the old guard. Arms will then be ordered, and the commander of the guard will read and explain the orders of the guard to his men; these orders will also be read to the men when they come off sentry. The men of the guard will then be dismissed to the guard room.

Relieving and Posting Sentries, and Marching Reliefs :

1. On the approach of the relief, the sentry, with the rifle at the slope, will place himself in front of the sentry box. The corporal of the relief will proceed as follows :

Relief, Halt. At about six paces from the sentry.

The man who is to relieve the old sentry will then move out from the relief and halt in line with and on the left of the old sentry facing in the same direction; the old sentry will then give over his orders, the corporal ensuring that they are correctly given and understood.

Pass. { The old sentry will then move to his place in
the relief and the new sentry will close two paces
to his right.

Relief,
Quick—March. } The relief will be marched off.

2. When a sentry who is to be posted on a new post has reached the post assigned to him, he will be ordered to halt and face in the required direction. The corporal will then explain the orders to him in such a manner that he understands them.

3. The object for which he is posted, the front of his post, and the extent of his beat, will be clearly pointed out to a sentry when first posted.

Sentries must not quit their arms, lounge, or converse with anyone on any pretense, nor may they stand in their sentry boxes in good or even in moderate weather.

Sentries moving about on their post will always turn outwards when turning about.

4. *Marching Reliefs.*—Reliefs of fewer than four men will be formed in single line, when of four men or upwards they will be formed into two lines. In streets Reliefs should always be marched

in columns of ones—when marching in line the Corporal will be on the right; when in column of ones, twos, or fours on the right of the rear man.

Sentries Challenging:

1. When it becomes dark the sentries will challenge in the following manner: On the approach of any person the sentry will call out in a sharp tone, "Halt. Who comes there?" When on a post where a sudden rush could be made upon him, he will at once come to the Ready. If the person approaching gives a satisfactory reply, the sentry will say, "Pass friend: All's well," remaining at the Slope or Ready till he has passed. If the person approaching answers GRAND (or VISITING) ROUNDS, the sentry, if there is no countersign, will say "Pass grand (or visiting) rounds: All's well," presenting arms as they pass if they are grand rounds. But if there is a countersign, he will say, "Stand grand (or visiting) rounds: Advance one and give the countersign," at the same time coming down to the Ready. In this position he will receive the countersign, and if it is correct will say, "Pass grand (or visiting) rounds," and proceed as above described.

If the sentry is on or near the guard-room door he will proceed as described below.

Guards Turning Out at Night:

The following form will be observed when a guard is visited by a field officer, or captain of the day, called grand or visiting rounds:—

On their approach the sentry at or near the guard-room door will challenge: "Halt, who comes there?" The officer will reply, "Grand (or visiting) rounds"; the sentry will then call: "Guard—turn out." The guard will fall in with arms sloped, and, if there is no countersign, the commander will call out: "Advance, grand (or visiting) rounds; all's well;" to grand rounds he will present; to visiting rounds he will remain at the slope. Sentries will come to the slope when the guard turns out.

If there is a countersign to be given, a corporal or sergeant with a flank two of the guard will double out, and when about ten paces from the rounds will order the two to halt, and will then repeat the challenge, "Who comes there?" The reply will be "Grand (or visiting) rounds; the non-commissioned officer calling, "Stand, grand (or visiting) rounds. Advance one and give the countersign."

Rounds will then in a low voice give the countersign, which the non-commissioned officer alone will carry, in double time, for verification to the commander of the guard. If correct, the commander of the guard will call out, "Advance, grand (or visiting) rounds. All's well." The two will then double back to the guard, and rounds will advance to the guard, which will present arms to grand rounds.

Guards of Honour.

Whenever a guard of honour forms up the commander will be three paces in front of the second man, from the right, or, in a confined space, from the flank by which the personage for whom the guard is mounted will approach, the officer carrying the colour three paces in the front of the centre; if there is a third officer he will be three paces in front of the second man from the other flank.

The guard will be drawn up in line (double line) rifles at the *Slope*, bayonets fixed.

The Colours.

The Colours will be carried at the *Slope*, and furled, with the following exceptions:—

- (i) When the men are at the *Slope* previous to a Royal or general salute, on the saluting base, and when advancing in review order.

On these occasions the Colour staff will be carried perpendicularly in the belt, which will be worn over the left shoulder; the corner of the Colour will be held in the right hand, which will also grasp the staff level with the forehead.

- (ii) When the men are at the *Order*. The Colours will then be placed perpendicularly on the ground at the right side.

The Colours will be let fly:—

As the caution is given for a Royal or General salute, and in marching past on reaching a point ten paces from the saluting point.

The Colours will be lowered:—

To those entitled to compliment, as the men present arms.

Mounted officers, with swords drawn, in passing uncased Colours, will remain at the *Carry*, turning the head, and glancing at the Colours until they have passed them. If at the *Slope* they will *Carry* while passing the Colours, returning afterwards to *Slope*. Officers whose swords are not drawn will salute the Colours with the right hand. Cased Colours will not be saluted.

Salutes.

Soldiers under the command of a superior will wait for the word of command, which will be as follows :

When with arms : “ Slope Arms, Eyes Right (or Left.)”

“ without arms : “ Eyes Right (or Left.)”

Individual soldiers will salute as follows :

When with arms: Will come to the Slope, Eyes Right (or Left)

“ without arms . Will salute with the right hand.

Officers will only draw swords when ordered, and upon inspection of ceremonial parades.

When reporting to, or speaking to, a senior, officers Carry Swords, salute and then Carry. They will similarly Salute when leaving.

Officers Saluting without Swords .

Officers will Salute with the right hand as laid down for the Infantry, when swords are not drawn or carried.

Duties in Aid of the Civil Power.

There are no duties which require more tact, decision, and good order than those which troops are called upon to perform when in aid of the civil power.

It is impossible to lay down exact rules for guidance in all the circumstances in which troops may be called upon to assist the civil power, but the following general rules should be borne in mind :—

The best formation in streets will depend on the width of the streets. Sometimes it may be desirable to commence with small files, columns gradually increasing the frontage, but the increase of frontage should be done gradually so as to give crowds plenty

of time to disperse. The pace should generally be the quick. If, however, the crowd becomes troublesome, the pace should be increased to a steady double, care being taken that the men do not open out. On no account should any one be allowed to get between the men.

If by any chance a crowd has assembled, and it is necessary to disperse it, a wedge shaped formation will be found suitable for penetrating it, and so setting it in motion.

It must be remembered, however, that the best way to deal with anticipated disturbances by large crowds is by timely precaution—by never letting large crowds assemble—by blocking streets and keeping the disturbed area constantly stirred up by the passage of cavalry or infantry.

When regiments or detachments are called out in aid of the civil power, on the application of magistrates, the application will show the circumstances which have rendered it necessary to call for their services. A full report will be made as soon as possible after the regiment or detachment is called out, by the officer commanding the regiment or detachment, for the information of the General Officer Commanding.

In the event of the disturbance amounting to a riot, if both magistrate and troops are present, it will be the duty of the magistrate, if circumstances permit, and it has not already been done, to read or cause to be read the Proclamation under the Riot Act.

The reading of the Proclamation under the Riot Act is important, both as conveying a distinct warning to the crowd, and as involving the legal consequence that those who do not disperse within one hour are guilty of felony; but it must be understood that to justify the exercise of military force in the prevention of serious outrage and damage to persons or property, it is not necessary to wait for the Proclamation to be read, or to wait till one hour has expired after it has been read.

If the magistrate comes to the conclusion that the police are unable to cope with the riot, and that the exigency of the case demands the interference of the troops, then, whether the Proclamation has been read or not, it is his duty at once to request the officer commanding the troops to take action. This request must be made distinctly, and, if possible, in writing, although it will be sufficient if given by word of mouth.

All commands to the troops are to be given by the officer in command. The troops are not, on any account, to fire except by word of command of their officer, who, if it becomes necessary to order the troops to fire, is to exercise a humane discretion in deciding the number of rounds, and the objects at which fire is to be directed.—(*See Militia Act.*)

Inspection or Review of a Battalion.

The Battalion is formed in line, rifles at the slope, bayonets fixed (or other order as directed), on the ground where the reviewing officer is to be received.

While the Battalion remains stationary on the parade line for the purpose of receiving the reviewing officer, company leaders do not repeat the words of command.

When the reviewing officer presents himself before the centre, the command "General Salute (or Royal Salute), Present Arms," is given; the time is taken from the commanding officer, and the officers come down to the salute.

Officers not having swords salute with the right hand.

The bugles sound, or the band plays the first part of a slow march, drums beating, (or the first part of the National Anthem); after which the officers recover and carry their swords with the commanding officer who at the same time gives the order "Slope Arms."

The reviewing officer then goes towards the right preceded by the staff and accompanied by the commanding officer, and the whole remain steady while he passes along the Battalion.

After the inspection is completed, the commanding officer gives the command "Order Arms," on which the officers slope swords.

After the Battalion has been inspected, if the reviewing officer desires to see it march past, a line will be marked out at say 200 yards in front of the Battalion, and the reviewing officer will take his post at the saluting point about 6 paces in rear of the centre of this line and facing the Battalion. The Battalion will then march past him in columns of companies at the slope, or as he may direct, the officers saluting when 10 paces from him and carrying swords when 6 paces past him.

When a brigade is inspected the inspection will be similar to that of a battalion, the brigadier will give the words of command, and will alone accompany the reviewing officer.

Firing a Feu-de-Joie.

The troops will be drawn up in line, (double line) at the slope, officers at the *Slope*; bayonets will not be fixed. The commander of the parade and his staff will be posted in front of the line, at such distance as he may decide, and turned towards it if desired; all other mounted officers will be in rear of the line. Three rounds of blank cartridge will be fired. If artillery are present and are ordered to fire twenty-one guns, seven will be fired before each round. For the first round of the Feu-de-Joie all commanding officers will give the command *Ready* immediately the artillery commences firing, and the word *Present* directly the seventh gun has fired, the commanding officer of the right battalion giving the command *Commence* immediately after the word *Present*.

Feu-de-Joie. { Company, Section and eight leaders will step forward three paces, and the rear eights, supernumeraries, etc., of each company will step back two paces.

Ready. { The men will load, inclining the muzzles of their rifles upwards, so as to clear the heads of the men in front of them. Supernumerary rank will stand with arms at the order.

Present. { Rifles will be brought to the *Present*, but elevated at an angle of 45 degrees.

Commence. { The right-hand man of the front line will commence the fire, which will run down the front and up the rear as quickly as possible.

When the right-hand man of the rear line has fired, the band will play the first part of "God save the King," the men remaining at the *Present*. On the last note of the band the commanding officer will give the word of command *Ready*, when the men will come to the *Ready*; the artillery will fire seven guns, and the infantry proceed as above described.

Two more rounds will be similarly fired. When the third round is fired, the band will play "God save the King," at the conclusion of which the commanding officer will then give the order *Unload, Order—Arms.*

The officers will then move to their positions and the commanding officer will give the following commands (on parades of large bodies working on the signal of the general of the division or brigadier) :—

Fix Bayonets.
Slope—Arms.
Royal Salute.
Present—Arms.
Slope—Arms.

Order Arms.
Remove Head-dresses.
 Three Cheers will be given.
Unfix Bayonets.

If a march past has been ordered to follow the firing of the Feu-de-joie, bayonets will not be unfixed.

Funerals.

Order of Dress. Officers to wear crape on left arm above the elbow.
Firing party. Review Order, with rifles.
Followers. Officers all arms, review order.
N. C. O.'s and Men. Review Order with side arms only.

Deceased's horse To be covered with a pall, deceased's boots and (if officer mounted), spurs in stirrups reversed.
Coffin. To have head dress and sword or side arm of deceased on top of coffin.

Infantry detailed for a firing party, according to the rank of the deceased, will be drawn up in line (double line) facing the building where the corpse is placed.

The firing party will be ordered to present arms as the body is brought out, and when the procession is ready to move off, the firing party will be ordered to reverse arms and march in fours. The officers' swords are reversed under the right arm, the point downward, the hilt being grasped with the right hand, blade uppermost.

Small funeral parties will march in twos at the head of the procession. Large funeral parties will march by companies in columns of fours.

The remainder of the procession will be formed thus :—

The Band.

The Corpse.

Pall bearers of equal rank with deceased on each side of the corpse.

The horse—as above.

Chief Mourners.

Officers and Non-Commissioned Officers in twos according to rank, the juniors in front.

When the head of the procession arrives near the spot where it is met by the clergyman, the escort will gradually open out, halt and turn inwards, so as to form a lane for the procession to pass through. The escort will be ordered to rest on its arms reversed and stand at ease; the heads of the men turned so as to look towards the corpse.

After the procession has passed through, the escort will be called to attention, ordered to reverse arms, turned towards the grave and follow the procession.

At the grave the troops will be formed up in such a manner as circumstances require, the firing party near the grave resting on its arms reversed.

The funeral service will then be performed.

At its conclusion the escort will be called to attention and present arms; three volleys will be fired over the grave, the command being :—

“ *With Blank Cartridge—Ready.* ” } As detailed.

“ *Fire Three Volleys in the Air.* ” } As usual.

“ *Present—Fire,* ” elevating the muzzle in the air.

After firing three rounds the men will be directed to slope arms. The escort will then be marched back to camp or barracks in fours or twos in quick time. In marching back, the band is not to play until the party is entirely clear of the burying-ground.

To Reverse Arms from the Present.

Hold the rifle out to the front to the full extent of the arms, turn the muzzle straight over to the front. Place the rifle under the left arm, muzzle to the rear sling uppermost, seize the rifle with the right hand behind the body, left hand round the small.

To Rest on your Arms Reversed from Reverse Arms.

Place the rifle perpendicularly, muzzle on the left toe, right hand on top of butt left hand on the right, head leaning on the breast.

Attention—Raise the Head.

To Present Arms—From Rest on Arms Reversed.

Seize the rifle with the left hand in front of the magazine, back of the hand to the body, right hand seizing the rifle at the small, back of the hand to the front, then bring the rifle to the present.

To Reverse Arms from Rest on Arms Reversed.

Seize the rifle with the left hand at the small and bring it to the Reverse Arms.

To Slope Arms from Rest on Arms Reversed.

Seize the rifle with the right hand at the small, left hand on the butt, and bring it to the slope, cutting the right hand to the side.

Notices.

Instructions for the detail and carrying of Equipment, and Instructions for Encampment, etc., will be issued with later editions of this book, or as an appendix.

It must be observed that though the aim in this work is to simplify the elementary drill of the soldier, there is no departure from the general system of training laid down for the Imperial Army. So, such excellent text books as "Combined Training," "Field Engineering," "Field Sketching and Reconnaissance," etc., etc., which have been prepared for the use of that Army, are equally valuable for the Canadian Militia, and should be read and studied by it, so as to ensure a common knowledge of those subjects which are necessary to combined action by all the Forces of the Empire.

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