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**NOTES FROM THE FRONT,
PART IV.**

AND FURTHER

NOTES ON FIELD DEFENCES.

COLLATED BY THE GENERAL STAFF,
MAY, 1915.

LONDON:
PRINTED UNDER THE AUTHORITY OF HIS MAJESTY'S
STATIONERY OFFICE
By HARRISON AND SONS, 45-47, ST. MARTIN'S LANE, W.C.,
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PREFACE.

In issuing "Notes from the Front, Part IV.," it is desired to impress on the reader that the contents are the result of experiences gained on Service, showing the expedients employed in carrying out the principles of the various Training Manuals, under the local conditions, as well as emphasizing details which have not received the attention they deserve.

It is not intended that this pamphlet shall in any way take the place of the existing Training Manuals, and it should be read in conjunction with the official text books.

A copy of these notes should be issued to every officer.

CONTENTS.

	PAGE
I.—RELIEFS	5
Divisional orders concerning	5
Notes by a commanding officer on relief of trenches ...	8
II.—MACHINE GUNS	11
Machine-gun pits	36
III.—NOTES FROM WAR DIARIES, &C.	17
Mining	17
Memorandum on the Training and Employment of Grenadiers	19
Points d'appui	25
Selection from certain notes	26
IV.—INFANTRY AND ARTILLERY INTER-COMMUNICATION ...	28
V.—NOTES ON HEAVY ARTILLERY	30
VI.—INSTRUCTIONS FOR REQUISITIONING AND BILLETING IN FRANCE AND BELGIUM	32
VII.—No. 15.—NOTES ON FIELD DEFENCES	33
APPENDIX A.—Extracts from the Regimental Orders of a Cavalry Regiment at the Front	53

NOTES FROM THE FRONT, PART IV., WITH
FURTHER NOTES ON FIELD DEFENCES.

I.—RELIEFS.

The following orders, which were issued by a division, bring to notice some of the points which require attention when arranging for and carrying out reliefs :—

The following Standing Orders regarding reliefs of formations and units in "Front line," "Support," and "Reserve," are published to save continual repetition in Operation Orders :—

1. *Officers and non-commissioned officers as guides.*—One officer per company and at least one officer or non-commissioned officer per platoon will invariably be sent forward by battalions under brigade arrangements the night before the trenches are to be occupied for the first time by the particular unit, returning the following evening to meet and lead their men forward.

In the case of battalions about to re-occupy exactly the same trenches, the Brigadier-General Commanding may, if he is satisfied that companies will know their way, reduce the number of officers sent forward or dispense with the procedure. The same applies in the occupation of positions and billets as "Brigade in support" and of billets as "Brigade in reserve," but in these cases one or two officers per battalion are sufficient, and they need only make their reconnaissance in the morning of the date of occupation. Officers must then thoroughly acquaint themselves with positions of battalions, details for billets, and stands for transport. It must be remembered that owing to the narrowness of roads the leading of transport to its destination at night is of even more importance than that of battalions. A block on the road may upset a whole column and render it liable to shell fire while immobile.

2. *Reliefs.*—*Artillery, engineers and field ambulances.*—Units of artillery, engineers and field ambulances are

never to be relieved during the day or night on which the change from "Brigade in reserve" to "Brigade in support" takes place. These units will be relieved respectively under the orders of G.O.C.R.A., C.R.E., and A.D.M.S., after prior consultation with the General Staff as to time and date.

3. *Relief*.—No trench or position in support will, under any circumstances, be evacuated until actually occupied by relieving troops.

4. *Articles to be left in trenches and interchangeable*.—Entrenching tools, ammunition, braziers and buckets will, and in exceptional circumstances when the Brigadier-General concerned so decides machine guns may, be left in the trenches for the use of relieving troops.

The question of taking away or leaving entrenching tools in the trenches is still under consideration. Pending a definite decision General Officers Commanding brigades concerned will decide between themselves whether to leave or take away *all* tools.

In case of difference of opinion reference should be made to divisional headquarters.

Brigade and regimental tool carts will not be exchanged between headquarters of brigades and battalions in reserve and in support. They will be placed as follows:—

Brigade in front line—

Tools in trenches.

Brigade tool carts empty in Royal Engineer park.

Regimental tool carts empty with transport of battalions.

Brigade in support—

Brigade tool carts full (except when tools are in use) in Royal Engineer park.

Regimental tool carts full (except when tools are in use) with transport of battalions.

Brigade in reserve—

Brigade and regimental tool carts full at brigade and battalion transport headquarters.

5. *Rations*.—One day's rations will be carried into the trenches. All water bottles must be full.

6. *Small-arm ammunition*.—At least 220 rounds of small-arm ammunition per man will be carried into the trenches. On leaving the trenches to take up positions as "Brigade in support" units will move with at least 120 rounds on the man. Rounds surplus to this may be left in *ammunition boxes* in trenches for the use of relieving units.

Immediately it is dusk ammunition must be brought up to complete up to 220 rounds per man, and again during the night should it be necessary, in order that men may commence the day with that amount of ammunition at least.

7. With reference to Standing Order, Section V., No. 13 (b), the General Officer Commanding does not wish the brigade in reserve to stand to arms at the time mentioned. He relies on arrangements being made by the Brigadier-General Commanding which will ensure that in case of alarm by night or day the troops belonging to this brigade can quickly proceed to the scene of action.

8. *Reports to be rendered*.—(1.) *Progress reports*.—A report must reach divisional headquarters by 5 a.m. and 8.30 p.m. daily, stating the situation along the front during the intervening hours.

As this report has to be forwarded to General Headquarters at these hours it is essential that it should arrive punctually.

If reports are not in from battalions, the report should state situation as last known, *i.e.*, nothing to report up to 7 p.m. In the evening report the approximate number of casualties during the preceding 24 hours should be added.

Any serious occurrence should be reported at once.

(2.) *Work carried out*.—Company commanders in the trenches on being relieved will inform the commander of the relieving company of the work that has been completed, or that has been begun but is unfinished, and will communicate any suggestions they may have to make.

Brigades on coming out of the trenches will send in a report on the work carried out during their occupation of the trenches, with any suggestions they may have to make. This report should reach divisional headquarters by mid-day on the second day after relief, *i.e.*, if relieved on the night of 9th—10th by mid-day 11th.

(3.) *Completion of relief*.—Brigades taking over trenches will report when their battalions are in position.

Brigades being relieved will report directly their battalions have returned.

Note.—Paragraph 3 of the above orders is of such importance that it was considered necessary to repeat and underline it in the Operation Orders on each occasion on which a relief was carried out.

NOTES BY A COMMANDING OFFICER ON RELIEF OF TRENCHES.

1. All units should be formed up before dark in the order in which, and under the commander with whom, they will go into the trenches.

2. All possible stores and rations should be carried into the trenches when first going in; this saves sending parties away for rations, &c.

3. The pace in front must be *very* slow and constant halts ordered to ensure the party arriving together; nothing is worse for the moral of the men than thinking they are lost or going the wrong way. Those carrying the largest loads should be in front. An officer should always be in rear if possible.

4. Men should never double at night.

5. Each party should go under its leader and a guide to its own trench. On dark nights the men of each party should hold the bayonet scabbard of the man in front and never let go; this prevents parties getting mixed up and losing themselves.

6. Officers should then take over:—

- (i.) Stores, tools, ammunition, periscopes, telescopes, &c.
- (ii.) Any change in trench.
- (iii.) Work being done.
- (iv.) Work required.
- (v.) Dangerous points.
- (vi.) Movements of enemy.
- (vii.) Listening posts, &c.
- (viii.) Numbers of trenches, thus: "E. 1," "E. 2," and position of trenches on flanks and supports.

It is *most* important that *every* man should know the number of his trench and support, and, if possible, the numbers of all trenches held by his battalion and its supports.

7. Men should be numbered off from right by threes or by fours, and either one out of every three or two out of every four should be detailed as sentries. Bayonets should be fixed at night, except possibly by look-out men on moonlight nights.

8. Company commanders should send back reports as soon as possible to battalion commanders which should include:—

- (1.) A rough sketch showing enemy positions, also one of their own trenches if taking over a new line.
- (2.) Tools and stores required.
- (3.) Casualty reports, stating if stretchers are required or not.

Men should constantly be sent with messages at night so that they may know their way about; this will induce confidence in themselves and accustom them to moving alone or in pairs in the dark. They should be able to describe accurately the position of their trench to the person to whom they are taking messages.

9. Periscopes, flare lights and Very pistols should be used carefully and constantly to make sure that the enemy are not sleeping and advancing their works under cover of darkness.

When the enemy sends up flare lights men must remain perfectly motionless. Any movement while the flare is burning will probably attract the enemy's attention and cause him to open rapid fire.

10. *Orderlies.*—Two from each company, or trench if not connected, should go to battalion headquarters as telephones constantly break down and are cut by artillery fire just when most wanted. These orderlies should always go in pairs, but the orderly from A trench should be accompanied by one from B, and so forth, so that all know every trench. They should be used constantly, even if telephones are working.

11. Enfilade fire should be particularly encouraged and used, especially by machine guns, and the map used to help in this.

12. Supports should, if possible, have a rough idea of what to do on their own initiative without waiting for orders. The great thing is—if a trench is taken, to retake it as soon as possible with the *bayonet*, and have rifle fire

to mow down the enemy as they retire or advance. An officer, who probably has the greatest experience of the war, often told me that the enemy never stand up against the bayonet, and never know what to do when they have taken a trench, and in my only personal experience I found it perfectly true.

13. In case of heavy firing, stand-to but don't fire unless necessary. Never *move* till you have information.

14. Encourage all initiative; even if attended by casualties, it will save bigger losses in the end.

15. Be sure that every officer, non-commissioned officer and man knows how to use rifle grenades—Hand grenades, Mark I. and II., Tonite hand grenades, and Jam Pot grenades. Insist on having some for instructional purposes and *never* remove the safety pin till you are going to fire. With the rifle grenade, after removing safety pin, you *must* pull down the little brass collar it goes through, otherwise only 1 in 10 will go off.

16. Never allow supports to come out of dug-outs in daylight, not even officers.

Orderlies give away a headquarters very quickly in daylight.

Men should be trained more in improving and altering trenches (under fire conditions) than in actual digging of fresh trenches—especially:—

- (1.) Draining from the bottom and lowest point upwards to where water lies.
- (2.) Cutting drain at back of trench and covering it over with *hurdles*, not brushwood or straw, as these cannot be removed and stop future work.
- (3.) *Sapping* either to the front or to make traverses or communicating trenches.
- (4.) Revetting and using sand-bag cradles, either iron or forked sticks.
- (5.) Placing and *screening* loopholes, iron or otherwise. General use of farm implements, &c., stove-pipes, doors, &c.

17. Latrine arrangements need careful thought—buckets that can be used by day and carried away at night and replaced are best, and it must be remembered that the trench receives back from all high ground near it.

18. Get to know position and calibre of all supporting artillery. The position of enemy's guns and machine guns should be reported to the artillery.

19. Firing should be kept well under control so as to stop the useless waste of ammunition.

20. Charging magazines is a most important operation and often not sufficiently practised, with fatal results.

21. All ranks should be impressed with the necessity of burial of dead as soon as possible under cover in rear.

22. It is important to have 50 extra pairs of boots so that men whose boots need mending can be given another pair while theirs are being mended. *Regimentally* this *can* and should be done, it only needs arranging and making the shoemaker keep materials. He can go on working while men are in the trenches.

23. Waterproof overalls to the knee are very useful. Ammunition boots are the best, I have found. All officers should have electric torches.

24. Blankets should on no account be taken to the trenches. It is difficult to rouse tired men in the case of an alarm, and when rolled up in blankets they take too long to turn out.

II.—MACHINE GUNS.

1. As many subalterns as possible should be trained as machine-gun officers, at any rate sufficiently to enable them to work the gun.

Machine-gun officers should guard against the water in the barrel casing of the machine guns becoming frozen. Until glycerine can be obtained, the guns should be kept in the rooms where the men are sleeping.

A case made of two waterproof sheets has been found invaluable for keeping and carrying machine guns when not in use.

2. *Work in trenches.*—Guns and their equipment have to be carried by the men sometimes for long distances along the narrow communication trenches, and as these are often muddy the portage of the gun will be rendered easier if a strap with a handle, which could be fixed round the barrel casing near the muzzle, is provided. Then one man can hold the gun by the strap and another at the cross-head. It must be remembered that the men carry their rifles,

equipment, 200 rounds of ammunition, and a heavy pack, besides the gun.

3. Firing by day from the trenches, unless a good target presented itself, was found to draw the fire of the enemy's guns and rifles.

Traversing from one of the enemy's loopholes to another can be accomplished by teaching the men the number of "taps" required to make the gun travel through a certain distance. This applies to night work. But for the very accurate shooting that is required for effect against loopholes, it was found that a rifle was superior to a machine gun because the sights are so much better on the former.

4. *Emplacements.*—It is difficult to conceal work on these from the enemy unless the greater portion of it is done by night.

When the enemy's trenches are 200 yards to 300 yards distant from ours it is always possible to put men on the top of the parapet to work at night. The men of a detachment were constantly doing this, and no casualties were suffered. Of course, the man must know exactly what he has to do before he starts, and he and those near him must work quietly. Sand-bags are filled by day and placed in position for the loophole by night, and then earth is thrown over them to hide them. It is not easy to get the correct direction for a loophole by night, and for this and other reasons it sometimes requires two or even three nights to make a really good emplacement.

The method usually employed was to choose a position for the gun by day. Sandbags and planks were collected, the parapet was cut straight down and made ready for the loopholes being made. During the night the existing head cover, usually about 1 foot high, was pushed forward from the parapet, so that a ledge appeared behind the head cover while the front of the parapet looked the same to the enemy. The loophole could sometimes be made at once, but it was often necessary to examine it during the day to get it correct, and this was especially necessary when the enemy were close (within 100 yards), in which case all the work had to be done from inside the trench.

It is useful to place a plank or a door over the loophole as overhead cover, and a sack hung from the back of this is excellent for blinding the loophole by day. The gunner

should lift the sack and get up to the gun, then drop the sack behind him; he can then remove the cloth used for blinding the actual loophole itself, while the sack behind him will hide him from view.

Too high or elaborate head cover merely draws the enemy's fire. It is necessary to make large loopholes to get traversing fire, so it is necessary to pay attention to having them carefully blinded. The method here described, with the large sack behind, was most effectual, and two emplacements, made at about 100 yards from the enemy, were kept completely hidden from them. Before this was resorted to one of the guns was completely wrecked by a shell; the enemy stopped firing directly they saw that they had obtained effect on it.

5. Where an attack is expected one gun should be placed so that it can support another; the want of this arrangement was experienced during a hostile attack on our trenches. The guns of the detachment should be kept together as much as possible, and not sent to different points along the firing line where they cannot co-operate.

Alternative emplacements in the trenches are necessary and must always be made.

6. Opportunities can sometimes be found for firing at longer ranges at the enemy's supports and work parties behind the trenches. Careful observation of the enemy's line and points of advantage behind it are necessary, so that the gun can be laid to bring fire on any point which gives evidence of being occupied by the enemy during the night.

7. The non-commissioned officers at least of the detachment require glasses for observation purposes.

8. The German guns seemed to be used in the trenches as a single loader against our loopholes, so they did not give themselves away. Later, in December, they appeared to be provided with steel loopholes with a flap in front, which could be raised for shooting purposes; the flap is provided with a small spy-hole for the sentry to observe through. The Germans used these loopholes in their sap-heads at close quarters (40 yards and less).

9. During an attack on our trenches our positions that were not being attacked were swept with machine-gun fire; one of the enemy's guns was advanced as the attack pro-

gressed to a position from which it enfiladed our trench very effectively. This gun also fired on hedges and houses behind our firing line; whether this is the usual procedure of the enemy, or whether they saw a picquet of our men endeavouring to reach a house by crawling along a hedge one cannot say, but this fire was effective, and a similar procedure might with advantage be used by us under similar circumstances.

It has been ascertained that the enemy has on several occasions made use of the following system of fire trenches, which have been constructed by improving sap-heads pushed out in front of the main line of trenches.

The saps are made straight, and the trenches constructed in straight lengths and untraversed. At the angles and in rear of the communication saps, strong brick caponiers are built sufficiently large to contain two machine guns firing down the trench in both directions (Fig. 1). These caponiers are protected by two or three feet of earth overhead, and are not visible from the front.

The communication trenches are similarly constructed, and a Maxim placed under cover at the rear in such a way as to fire straight down the trench (Fig. 1).

The above system is applicable to lengths of fire or communication trench which are not subject to enfilade.

In the attack of a trench defended thus, it is most important to discover the caponier and to destroy it with hand grenades.

A system of works based on this principle may be constructed with advantage in front of the line, either of the main fire trench, or of a line of *points d'appui* or redoubts.

FIG. 1.—MACHINE GUN CAPONIER.

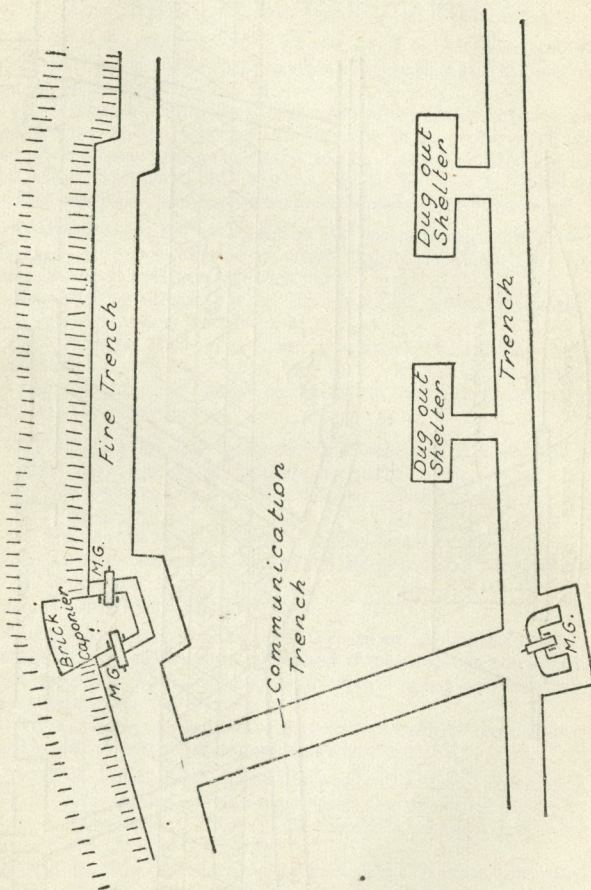


FIG. 2.

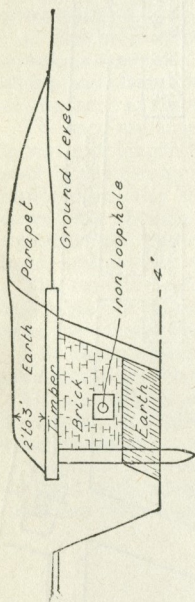
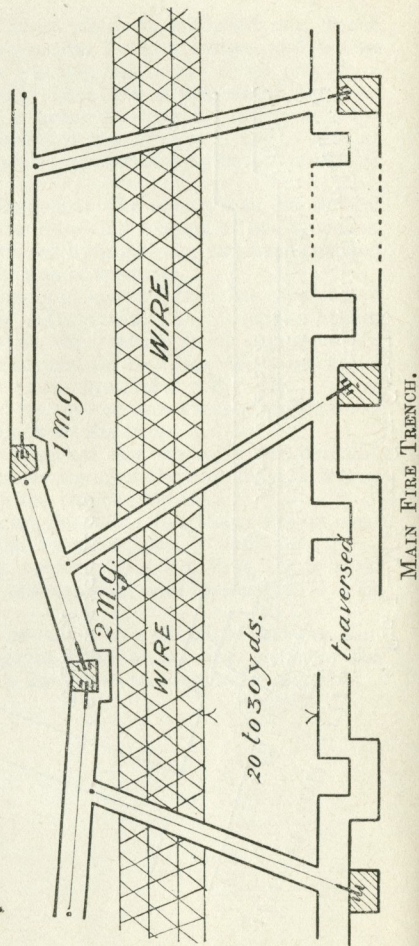


FIG. 3.



III.—NOTES FROM WAR DIARIES, &c.

1. *Infantry trained as Engineers.*—(i.) One officer and 25 men per battalion are trained as sappers and known as battalion sappers.

(ii.) It has been decided to have an officer in each battalion told off as an engineering officer; he is to work with the Royal Engineer officer allotted to the lines occupied by his battalion, and learn his work so as to be in a position to advise company officers on technical engineering matters.

2. *Mining.*—(i.) The formulæ for calculating gun-cotton charges give a sufficiently close approximation for the calculation of melinite charges.

(ii.) Mining operations to be successful must be carried out by sappers and professional miners.

(iii.) Mining, like every other operation, should be undertaken with a definite object and on a definite plan settled by the commander after consultation with his technical adviser, for instance :—

- (a.) To gain ground by forming a series of craters which can be occupied and connected ;
- (b.) To destroy enemy's trenches, or buildings occupied by him ;
- (c.) To ascertain whether the enemy is mining ;
- (d.) To stop the enemy's advance by trench and sap above ground at vital points ;
- (e.) To recapture lost trenches.

The plan of attack should be formed on accurate information of the enemy's trenches, based if possible on aeroplane photographs. Local information with regard to buildings and ground may be of use.

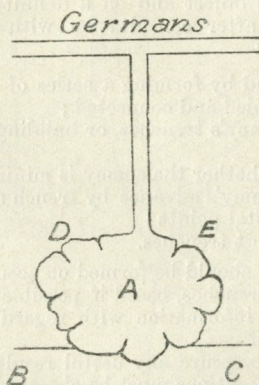
(iv.) *Listening.*—To secure any useful results from listening the following precautions must be observed :—

- (a.) The listener must be divested of all accoutrements, for it has been found that the creaking made by these when he is in a cramped position has been mistaken for mining.
- (b.) Listening should be conducted at certain specified hours, or on some pre-arranged signal, and for a definite period. During these periods everyone

within the listening area, including the trenches, must remain absolutely motionless—there must be no talking, moving, working or noise of any sort.

- (c.) Should a crater or enemy's trench be occupied, listener galleries should be run out to protect it as soon as possible.
- (d.) It must not be forgotten that the gallery used to fire a mine may still be serviceable within a yard or two of the edge of the crater. Consequently if the enemy were to make a crater at A (see Plate 1) and we were able to seize it, it might be advisable in the first place to occupy the edge B—C; for if D—E were entrenched before listener galleries were run out, it would be easy for the enemy to mine it from his original gallery.

PLATE 1.



- (e.) Listener galleries should never be left without a sentry.
- (f.) The infantry manning a trench can assist listening by digging a small pit 6 feet deep below the trench and running out a bore hole 20 feet. This can be done in 6 or 8 hours.
- (g.) The enemy is always listening for indications of the

direction and position of the gallery heads; work must therefore be conducted with the minimum of noise. Speaking, if necessary, must be carried on in undertones, and shouting down the shaft or in the galleries forbidden. If the enemy is heard, a report should at once be made to the officer in charge. Arrangements should be made for a signal on which all work ceases, and all attention is devoted to listening; and for another on which work is resumed.

(v.) There should be a dépôt of arms and hand grenades at the entrance to a mine for use in case the men on duty are attacked either below or above ground.

(vi.) Stores of timber should be formed from which the supplies of service mining cases and frames and sheeting may be supplemented.

(vii.) *Precautions against attack.*—When any section of our trenches appears to be in danger of mine attack, a new trench should be dug behind it to enclose the threatened part. This rear trench must be occupied, only such garrison as seem necessary being left in the front line. If an explosion takes place in the front trench, the men in the new trench should at once rush forward again.

3. *Practice in wire cutting.*—Wire entanglements should be erected near the billets of brigades in reserve, and practice carried out in wire cutting and overcoming obstacles. Men should be trained in each platoon.

4. *Grenades.*—The following memorandum has been issued by the General Staff at General Headquarters:—

MEMORANDUM ON THE TRAINING AND EMPLOYMENT OF GRENADIERS.

Issued by the General Staff at General Headquarters.

(1.) *The objects of grenade throwing.*—Among the more important purposes for which grenade throwing may be used are the following:—

- (i.) To prevent the approach of enemy's sap heads towards our own trenches.
- (ii.) To facilitate the progress of a storming party along the enemy's trenches which have been successfully attacked.

(iii.) To prevent the advance of the enemy along our trenches which they may have succeeded in entering.

(2.) *Selection of men.*—The men taken for training as grenadiers should be selected from the very best, bravest and steadiest in emergency.

(3.) *Training and instruction.*—Training and instruction must be progressive, and should commence with practice in throwing dummy grenades. This should always be carried out with the strictest observance of active service conditions, viz. :—

- (a.) The men must be fully armed and equipped.
- (b.) Throwing must invariably be practised from a narrow trench or behind a barricade.
- (c.) Men should be practised, not merely to throw over a traverse, but at least into the space beyond the second traverse from them.
- (d.) For practice, traverses should be made at varying intervals, and some should be loopholed, in order to teach the men that they may be checked by, and that they may have to resort to, rifle fire.
- (e.) Men must be taught to throw accurately at both long and short distances.

The best results for long-distance throwing are obtained by swinging the arm upwards and slightly forward, the hand, at the commencement of the swing, being about the level of the waist. For short distances, the grenades should be lobbed from the shoulder by an action similar to that employed in "putting the weight."

- (f.) Men should be taught to concentrate or distribute fire as required.

(4.) *Practice with live grenades.*—Training in grenade throwing should be carried out in each battalion under a selected officer, but all officers should make themselves acquainted with grenade tactics. At least 12 non-commissioned officers and men in each company should be trained in their use.

Before men are allowed to use live grenades the following should be explained and demonstrated :—

- (a.) The construction and action of the hand grenade.
- (b.) The properties of fuzes, detonators, and explosives.

- (c.) The making up and firing small charges to accustom men in handling explosives, cutting fuzes, &c.

Plenty of practice with live bombs is essential, but familiarity with explosives must not be allowed to induce carelessness in handling them.

The length of fuze at first should be such as to allow at least 10 seconds burning. This length should be gradually reduced to the service length as the men gain confidence and skill in lighting and throwing.

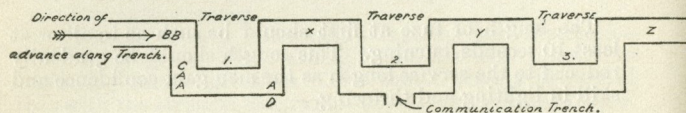
(5.) *The organization of a trench-storming party.*—A trench-storming party will, as a rule, consist of :—

- (a.) The bayonet men to cover the party.
- (b.) The grenadiers. Each grenadier should, as a rule, be accompanied by a carrier.
- (c.) The remaining carriers. This party should be followed by—
- (d.) The sand-bag men, who carry the sand-bags half filled. They block side entrances to the trench, and finally barricade the furthest point reached in it. In an attack the sand-bag men may form part of the main body, or, in working along a trench, be taken from the men detailed to modify or destroy the trenches or to hold them.

The sand-bag men, and other parties in rear of them, will vary in numbers, but for working along a trench the grenadier party might consist of two throwers, with a reserve of two behind to take their places in case of casualties; they might be followed by four carriers if they are necessary; there should also be about eight bayonet men. Four of these last, including the non-commissioned officer in charge, should be just in front of leading grenadiers and carriers, and four behind them and in front of the reserve throwers and carriers. Some of the men in rear of the leading throwers and carriers must be left to watch communication trenches that may be passed in advancing. In an attack, there should be spare grenadiers and carriers at the head of each company, who will be available to replace casualties and take over the watching of side trenches from the grenadier party.

(6.) *Method of attack.*—(a.) The following mode of action in working along an enemy's trench has been found successful:—

Fig. 1.



On arriving at traverse 1, the bayonet men should place themselves in positions AAA, the non-commissioned officer at C, or as required, the grenadiers at BB, behind the traverse with the carriers, if any, and spare bayonet men behind them. No. 1 grenadier then throws a grenade over the traverse into trench X, and a second one into trench Y. The leading bayonet man can then move forward, so as to see into trench X. If it is clear, he passes back word, and the three bayonet men move up trench X and occupy positions at traverse 2, similar to those at traverse 1. The grenadiers then follow, and throw grenades into Y and Z. Until Y is clear, the reserve bayonet men remain behind traverse 1, in case the enemy should throw grenades into trench X.

Should trench Y be too far to reach from traverse 1, the grenadiers should move to point D and throw obliquely into it before advancing to traverse 2.

(b.) When a machine-gun detachment accompanies the party, the following method has been found to be effective:—

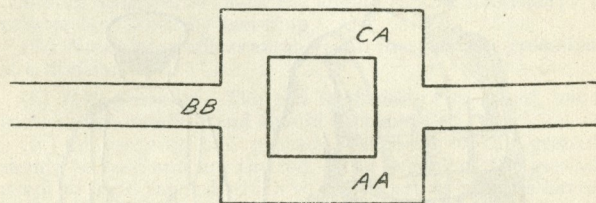
The officer decides on a suitable position for the gun as soon as the hostile trench is reached; the machine-gun detachment then construct an emplacement blocking the trench, but leaving room for one man to pass at a time.

The grenadiers act as described in (a), and a forward stop at least 40 yards in front of the gun emplacement is constructed, blocking the trench, and also leaving room for one man to pass at a time.

The traverses between the emplacement and the forward stop should be cut away so as to give a clear field of fire to the machine gun.

(c) Should an "island traverse" be encountered, the leading bayonet men must watch both sides of it whilst the grenadiers are throwing grenades.

Fig. 2.



(7.) *Grenade carriers.*—Receptacles for carrying grenades have been devised. One type is in form of a basket or box similar to the machine-gun belt-box, with strap handle, and fitted inside to take the type of grenade in use.

Another type is that illustrated in the sketch. It consists of a leather belt, of the bandolier type, which goes three-quarters round the body, and has pockets in front for the grenades. The belt is supported by two straps attached in front, which are passed under the shoulder straps, then through loops on ends of the belt, and then are brought round the waist and tied in front. This leaves the man free use of both hands. (Figs. 3, 4.)

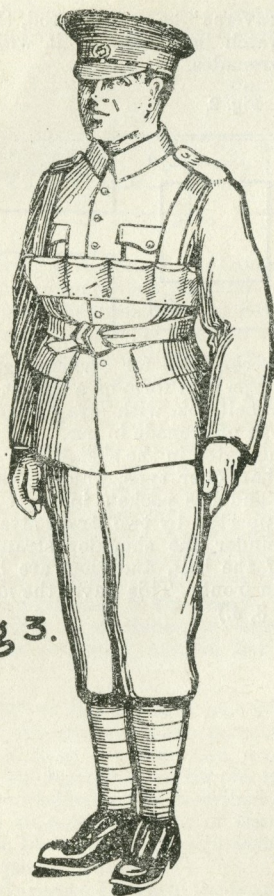
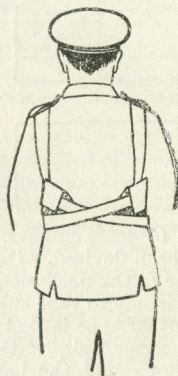


Fig 3.

FRONT VIEW.

Fig 4.
BACK VIEW.

(8.) *Sand-bag men.*—Sand-bag men should be practised in filling sand-bags and passing them quickly along a chain of men in a trench to a given point, where a barrier is to be constructed. When a barricade is made it must be machine-gun proof, and it should have a second barrier, out of bombing distance, to check the enemy should he attempt to recover his trench by bombing.

(9.) Notes by an officer employed in charge of the grenadiers of a division—

(i.) *Rifle grenades.*—The rod is officially rust proof, but it rusts in the trenches and should be kept oiled.

(ii.) In carrying the grenade, the head of the grenade should be held and not the rod. The weight of the grenade is apt to bend the rod which will then not fit into the barrel.

(iii.) The box sight is too clumsy and depends too much on the ground being level. In practice men can learn to judge the elevation by observing the trajectory of the grenade in flight.

(iv.) The firer should stand well back from the parapet as the grenade, if shown over the parapet, draws fire.

(v.) The detonators are packed in cotton wool which absorbs a great deal of wet when a tin is once opened. This may cause the detonators left in the tin to become defective.

(vi.) An enemy machine gun interfering with a working party at night was silenced by rifle grenades.

(vii.) An experiment was tried by shooting rifle grenades point blank at the loopholes and parapets of the trenches where snipers were active. This was done with great effect and all sniping ceased in a very short time. This method was found to be a much more accurate way of firing the rifle grenades.

(viii.) *Hand grenades.*—The trench for instruction should have a parapet front and rear as one of the difficulties is to avoid striking the grenade against the rear parapet.

5. *Points d'appui.*—On one occasion, from the fighting which took place in the neighbourhood of Givenchy and Cuinchy, it is evident that *points d'appui* or keeps constructed in rear of the line of trenches at both these places saved the situation and enabled the counter offensive to be undertaken.

(2117)

D

Criticisms on certain works by a C.R.E.—I noticed that the parapet is very low, apparently not quite 3 feet above the banquette. I think this is a mistake, as, if the post was hotly assailed on all sides, the garrison would be fighting at a disadvantage.

It seemed to me that the shelters were insufficient for the garrison. During an attack of the first line there would be plenty of bullets and shrapnel dropping in these posts whose garrisons would not be in action until the first line were forced. It would seem then that splinter-proof shelters should be provided for the whole garrison less a few men on look-out.

6. *The following is a selection from certain notes :—*

(1.) Tubs made from barrels, specially constructed square boxes, or Willesden canvas fitted on to a box frame, have all proved most useful for men to stand in in wet trenches. Whichever type is used, it should have a plank nailed across the corner to form a seat.

(2.) A trench inventory has been found useful to facilitate the handing over of a trench and prevent waste of material.

(3.) Battalion log books, showing every incident, however trivial, lead to continuity of policy. This book should be handed over to the relieving battalion.

(4.) Screens, &c., affording cover from view only, where proper trenches cannot be made or kept in repair, have proved satisfactory for facilitating communications. At first, owing to their novelty, they have been shelled, but after two or three days the enemy have left them alone.

(5.) In certain units it is a standing order that every man going up to the trenches should carry two sand-bags with him.

(6.) Sand-bags filled with brick rubble have been found bullet proof and superior to those filled with mud. There are nearly always ruined cottages within reach of the trenches, from which brick rubble may be obtained.

(7.) Ammunition boxes filled with earth form a useful foundation for a parapet when in a hurry.

(8.) Four strands of barbed wire, tightly twisted together, are impervious to any ordinary wire cutter.

(9.) When in close proximity to the enemy, listening patrols have been connected with the fire trench by a long

cord, and a simple code of tugs has been arranged. This is found to give the men confidence.

(10.) Fixed rests for rifles have been found useful for night firing against spots where enemy are known to pass.

(11.) Rifles are apt to get clogged in the trenches after about 30 rounds of rapid fire. They should be exchanged with those belonging to men not firing, who can then clean the rifles. More ramrods should be carried. The time that most damage is done by mud is when a rifle is hot and is put down to cool.

(12.) Arm-racks in the trenches save the rifles, but there should not be groups of more than two or three rifles, otherwise it may lead to confusion.

(13.) Speaking generally, the careful preparation and use of dummies of every sort—trenches, loopholes, machine guns, guns, sniper shields, and figures, &c.—have proved to be of great value.

(14.) It is found that artillery observation officers, wearing their flat caps, going into the trenches held by Scottish regiments, draw fire on the position of the trench they are in.

(15.) *Snipers.*—Officers and men in advance of the guns must never go alone. A man with a loaded rifle should accompany each party. Don't walk along straight roads by night, and avoid houses and stacks.

Our infantry have no proper system for hunting up these snipers, *i.e.*, those who get right in, say 1,000 yards behind our trenches. These snipers are bold and cunning. A battery commander recently changed his observing station to a house on the outskirts of a village where the infantry brigade headquarters were. He found that he and a German sniper were living in the same house. This sniper apparently fired along a straight road leading out of the village. Organized snipers usually overcome the enemy's snipers.

(16.) It is most important that the reconnaissance previous to the attack should be thorough and that the Staff and troops employed in attack or counter-attack should know the ground.

(17.) When detachments are proceeding by train, men should not be allowed to get out of the carriages without the express leave of a non-commissioned officer not below the rank of sergeant or of an officer.

(18.) *Billets*.—A chalked number on the door of the number of men (no name of regiment) the billet will accommodate considerably aids the battalion taking over.

(19.) Care should be taken that rifles are ready to hand at night.

(20.) *Nosebags*.—Great wastage occurs in losses through carelessness. It is most important to insist that all articles shall be replaced properly after use and not thrown on to vehicles without being made fast.

(21.) In the new pattern 18-pr. Q.F. guns the spade presents a semi-circular surface in rear. If the abutment to check the recoil has a straight face, the force of the recoil will be taken on two points of the spade only. A circular form of abutment should be used so that the strain can be taken by the whole surface, this may be arranged conveniently by placing sandbags in front of the baulk.

IV.—INFANTRY AND ARTILLERY INTER-COMMUNICATION.

Apart from the unreliability of telephones, the difficulty is, in the event of attack, to ensure a trained officer who can gauge the situation being at the infantry end. Infantry officers are liable at times to call prematurely for artillery support. Artillery are therefore on occasion perhaps slow in rendering the necessary assistance. Here the question of where the infantry end of the wire should be run to comes in. Some are against its being run into a fire trench, especially at night, for the following reasons :—

- (i.) The trench commander, who may be a junior subaltern, *thinks* he is going to be attacked, calls for artillery fire, and starts every gun in the Division firing. The whole Division is turned out unnecessarily and moral suffers. All commanders are short circuited.
- (ii.) Wire run into a fire trench is constantly being broken as aforesaid. In case of attack it is almost invariably broken by the enemy's preparatory shell fire.

- (iii.) The trench may be rushed and the instrument left in it. This has actually happened and the enemy may have listened to our messages until it occurred to somebody, some time later, to disconnect the wire at battalion headquarters.

Therefore it is best to run the wire to headquarters of battalions in trenches, or at furthest to a support trench well in rear.

The above is quite apart from the question of running a wire into an advanced trench for *observation* purposes, but here again there is a temptation to use it unnecessarily.

A better system at night is for an artillery officer, an orderly and telephonists to sleep at the headquarters of the battalion in the firing line. The former communicates with the battery by telephone *and* by orderly when the battalion commander requires artillery support. Artillery fire is immediately opened on the night lines while the officer makes his way to the observing station, connects up the communications with the battalion headquarters and the battery, and is ready to make alterations in the direction of fire when required.

Selection of battery position.—A battery which shows itself or allows its flashes to be seen at once comes under such a heavy and concentrated shell fire that any effective reply is out of the question, if, indeed, it is not put out of action entirely in a few minutes.

German artillery methods.—Their strong point is their observation, which is very good. They have trained observers with telescopes who do nothing but watch for any signs of movements in our positions and keep special look out for artillery observing parties. When defilading from view do so from highest point in enemy's position although it may be distant (in our case the Germans have such a point and it is a great nuisance). Our infantry in support and reserve near our observation stations are very careless and give themselves and us away, *e.g.*—

- (a.) One morning I was coming away from a battery - observing station. After crawling along a dirty ditch for some hundreds of yards I came to some houses where a few of our infantry were loafing outside their billets in view of the German high

point, miles away. I warned them, but did not loiter in the vicinity. The billets were shelled the same morning.

- (b.) A few infantry showed on the skyline near one of our observing stations which was promptly shelled.
- (c.) A battery commander incautiously showed himself at a window of the house from which he was observing. He was promptly shelled out of it.

It is most important that the enemy's notice should not be drawn to the localities in which the artillery observation stations are situated. Good observation stations are very scarce, and they are useful for the battalion commanders to view the hostile lines. No one should be allowed to go to the look-out place unless on duty, and then the greatest care must be exercised to get there unobserved.

V.—NOTES ON HEAVY ARTILLERY.

Care of horses.—Turn out every available man at feeding time so as to try to feed every horse simultaneously. A large proportion of the casualties is caused by kicks received at feeding time.

Until the horses get accustomed to their next door neighbours, a man must always be handy to shout at them and keep the peace. If unruly horses are quickly spotted by Nos. 1 they can be isolated until they can be given regular work.

Heavy draught horses are invariably unaccustomed to oats on first arrival. This fact was very noticeable every year at Aldershot when hiring heavy horses for the heavy batteries. As, however, they do not get much work for the first few days, it does not affect their condition materially. But if you put down green food when they have their nosebags on, the horses get very excited and irritated because they cannot get at the green food which they infinitely prefer to oats.

Moving guns on heavy ground.—When a gun is in heavy ground the first pull should always be straight forward. It seems very difficult to impress upon the non-commissioned officers and drivers that if the limber is even slightly locked round the pull is a great deal heavier.

Almost invariably in west Belgium and the west of northern France to get into action the gun has to be wheeled

round off a narrow road at right angles through a gate with a ditch on each side. To do this successfully with a team of eight horses requires more skilful driving than is likely to be obtainable, so the ditch should be filled in for at least 3 feet. If you have to change your position at night this is even more necessary. When the turning into a field is narrow and muddy it will be better to unlimber on the hard road opposite the gate, swing the gun round, limber up and have a straight run in with your full team. At night this is always the best way. If you do get a gun into a ditch and it requires a holdfast to haul it out, it is a good thing to remember that another gun placed broadside on to the line of pull and the rope attached to the gun wheels near the ground makes a good holdfast. This method may save valuable time.

Gun platforms for 4·7-inch guns.—One of the objects to be attained is to be able to switch 40 degrees or 50 degrees and take on another target without much delay. In this case using the spade, it is impossible to lay down long planks crosswise to the line of fire as the spade acts between the wheels, and the best plan is to use short billets of wood from 2 feet 6 inches to 3 feet long for a sloping pathway for each wheel, checking the recoil about 5 feet away with sand-bags made out of grain sacks for the wheels and some sort of holdfast for the trail. The gun itself accentuates the slope for running up after the first round or two.

If you check the recoil too soon the gun is apt to sideslip, which is a serious drawback, considering that one's target is generally either a gun pit or an observation station at any distance up to 9,000 yards, and laying by rocking bar sight is imperative (the only dial sights provided are Mark I.), using an auxiliary mark if possible.

If you get a switch the billets and sand-bags are fairly quickly arranged in the new line.

Gunnery.—The essential thing in this blind country is to fix the exact spot of your guns on the map. The present maps are good, but the roads are not put in exactly right, and you must get intersections with prominent objects like churches and get your exact point.

This being done switches by the map are wonderfully accurate.

When working with aeroplane it is most useful for your

observation officer to observe the fall of the shots and note their direction with regard to some prominent object on the map. The observing officer, of course, cannot see the target, but afterwards the battery commander plots out the line the observing officer gave him for the shot that the aeroplane gave as correct, and the position on the map of this target is identified most accurately. Another battery can then be turned on if necessary with very fair hopes of good results.

Once a week at least you should calibrate your guns by firing a round or two from each at some prominent object whose range is well known, and the atmospheric conditions noted. Our guns at one time required 1,000 yards' correction at 6,000 yards.

The enemy's guns can often be located by finding the line by scoop of shells and the setting of fuzes and by careful scrutiny of the map to discover probable positions for the enemy's battery through which the line of scoop goes.

VI.—INSTRUCTIONS FOR REQUISITIONING AND BILLETING IN FRANCE AND BELGIUM.

Issued with General Routine Order No. 684.

1. *Requisitions.*—Complications have arisen, and duplicate payments have been made, in cases where officers have issued a signed requisition note, and have subsequently themselves made payments for the goods entered on the requisition note.

2. It should be clearly understood that supplies, stores, horses, materials, &c., required for the service of the British Army can only be obtained in one of two ways (Field Service Regulations Part II., Section 43), viz :—

- (a.) By agreement with the owner, when payment will be made by the officer concerned and *no written acknowledgment made.*
- (b.) By requisition, when *no payment will be made* by the officer concerned, but in lieu of payment, a requisition note (A.B. 395) will be handed to the person supplying the goods, &c. This note will be signed on the spot and at the time by the Requisitioning Officer.

3. The requisition note (A.B. 395) will be strictly confined to case 2 (b.), and in no case will this note be redeemed except through the Central Requisition Office at Rouen as stated on the back of the note.

4. *Purchase and Requisitions.*—Purchases and requisitions for current requirements should, as a rule, be carried out under Divisional arrangements by officers of the administrative service concerned. When, in special cases, this is impossible, the officer making the purchase or requisition should communicate full details to the representative of the service or department concerned.

When requisition or purchase is resorted to, due regard must be paid to the needs of the inhabitants. On no account are milch cows or draught oxen to be requisitioned for slaughter purposes.

5. *Billeting.*—Billets are invariably to be arranged in consultation with the local civil authority. No requisition form is to be used, but a record will be kept by the commanding officers of :—

When Billeting in France :—

- (1.) Number of officers accommodated (at 1 franc per night).
- (2.) Other ranks—total number accommodated with beds (at 20 centimes per night).
- (3.) Other ranks—total number accommodated with shelter only (at 5 centimes per night).

When Billeting in Belgium :—

- (1.) Number of officers accommodated. The prices per head allowed by the Regulations of 1914 are—

Lieutenant-General	...	5 francs	per night.
Major-General	...	3	" "
Field Officers	...	2	" "
Captains and Subalterns	...	1 franc	" "
- (2.) Other ranks—21 centimes per head per night when straw is provided by the inhabitant.
 5 centimes per head per night when straw is not provided by the inhabitant.

On vacating the billets, the Commanding Officer will, in consultation with the Mayor or his representative, decide upon the total sum which is owing for the accommodation

received, calculated on the above rates, and will sign a certificate that that amount is actually owing to the local civil authority. No payment will be made. The certificate will be handed to the local civil authority for retention, and the Commanding Officer will send to the Central Requisition Office, Rouen, a duplicate signed by the local civil authority, retaining a copy for record. No other records will be kept, and all documents dealing with the matter must be destroyed.

All previous orders regarding procedure in the matter of requisitions and billets are cancelled.

R. C. MAXWELL, *Lieut.-General,*
Quartermaster-General, British Army
in the Field.

General Headquarters,
28th February, 1915.

VII.—No. 15.—NOTES ON FIELD DEFENCES.

Issued by the General Staff.

(1.) *Treatment of substantial buildings.*—The treatment of substantial buildings, which are so close to a line selected for defence that they must be included in it, or demolished, is a very difficult question. They cannot be held in the old-fashioned way, nor are they absolutely untenable on account of the fire of H.E. shell and to be avoided at all costs. Even with the support of artillery fire it is most difficult to dislodge troops from them, and they may be very valuable when the enemy is at close quarters. It will be seldom necessary to demolish them, but if this is done they must be laid absolutely flat so that they can be of no use to the enemy.

Fire trenches with the usual shelters should be provided near them, from 30 to 50 yards in front, and sometimes also in rear for occupation during periods of shelling, but unless the buildings are very substantial, wing trenches are preferable to trenches in rear (Fig. 1).

Covered approaches and communications to the trenches outside must be provided. The wing trenches should be connected to the front trench, and should lead direct into the buildings.

The ground floor of the buildings themselves should be prepared for defence, if not completely at least as regards sniping positions, loopholes for machine guns in the cellars as well as above ground, and look-out posts. These should be made in the ruins, if the house is demolished by shell fire.

The ground line of a building is a weak spot against shell fire, especially if it is provided with a cellar.

Houses exposed to shell fire which are occupied either as defences or billets, should be protected by means of an earthen parapet about 6 feet high thrown up against the exposed face (Fig. 2).

If the buildings are in front of the general line and prominent, it is advisable only to hold them by night, if a good cross fire across the front of them can be secured by day. If not, the wing trenches should be fairly long, and the buildings should be prepared for all-round defence with a strong all-round obstacle.

(2.) *Organization of a defensive line.*—Fig. 3 shows an arrangement of trenches and communications that may be applicable on certain sites where drainage is possible. The water in the 6 foot level can be carried off in pipes laid on the sole of the trench or under grating or planks.

The special features of the arrangement are:—

- (i.) Every fourth bay of fire trench is made deeper and loopholed for use of the men on look-out; it is intended that the other men on duty in the firing line should be kept close at hand in the deepened trenches, or in the bomb proofs behind the traverses, or in parados blindages.
- (ii.) A supervision trench is provided.
- (iii.) The traverses in the communication trench are loopholed.

It is suggested that when the fire trenches are very close to the enemy, and the importance of protection from artillery fire decreases, that every alternative traverse in the fire trench should be cut away, and the remaining ones loopholed, in order to stop the advance of enemy's bomb throwers who may get into the trenches.

(3.) *Notes on experience gained in excavation of trenches during the winter.*—(i.) Trenches must, if possible, be sited

with regard to natural drainage of ground as well as to field of fire; and drains must be dug to carry off water.

(ii.) If possible, the drains should be dug before the trenches are commenced, but, in any case, the work on them should keep pace with the excavation of the trenches. If water is allowed to accumulate in trenches, they will commence to fall in as soon as it is drawn off.

(iii.) Care must be taken that the work on each section of trenches corresponding to a drain is completed throughout to an even depth before work ceases each day. If part of a trench is left shallower than another, water will accumulate during the night and cause damage.

(iv.) If the sides of a trench are to stand unrevetted they must be left with a batter not less than 4/1.

(v.) Until the sides are revetted a berm of about 18 inches width should be left, otherwise the weight of the excavated earth on the edge of the trench may cause it to fall in.

(vi.) Communication trenches and drain trenches should not be combined if this can be avoided. If there is running water in a trench, pipes to carry it off should be laid.

(4.) *Loopholes for snipers.*—Figs. 4 and 5 illustrate a loophole constructed obliquely to the general line of the parapet, the object being to minimize the chance of the firer being exposed to direct fire from the enemy, and at the same time to give greater concealment to the loophole.

The whole of the ground in front of a trench may be brought under snipers' fire from the oblique loopholes by placing them pointing to the right and left alternately.

This design admits of considerably larger openings without making the loopholes conspicuous.

Concealment may be further improved by the addition of a curtain of sacking, which should be large enough to cover the head and shoulders of the firer when the loophole is in use.

(5.) *Machine-gun pits.*—Two types of machine-gun pits are represented in the diagrams.

The gun should not be placed on a pedestal of earth, as this is apt, even when well revetted, to give way after the gun has been much in use in bad weather. The pits should, if possible, be blinded. Accessories such as recesses for ammunition boxes, shelters for the detachment, and belt-filling rooms should be provided.

Drainage should be carefully attended to.

Fig. 6 shows a pit of minimum size, which allows of the gun being slewed round on its tripod so that it can fire in either direction, right or left.

Figs. 7 and 8 represent a pit for a machine gun fitted with a hyposcope. No. 1 cannot conveniently squat on the ground behind the gun when a hyposcope is used, he can fire best when standing. This, however, would require the trench behind the gun to be over 5 ft. deep, which is practically out of the question in winter, for drainage reasons. The pattern shown provides cover sitting with a 3 ft. 6 in. trench.

The crest of the parapet is 2 ft. or more high at side and back of gun and 6 ins. lower where the gun fires over it.

The legs of the tripod of the gun are placed in an equilateral triangle of 4 ft. side; the front leg being under the parapet. The apex of the triangle should point along centre of the line of fire; this will allow about 20 degrees traverse on each side.

General Headquarters,

1st March, 1915.

FIG. 1.

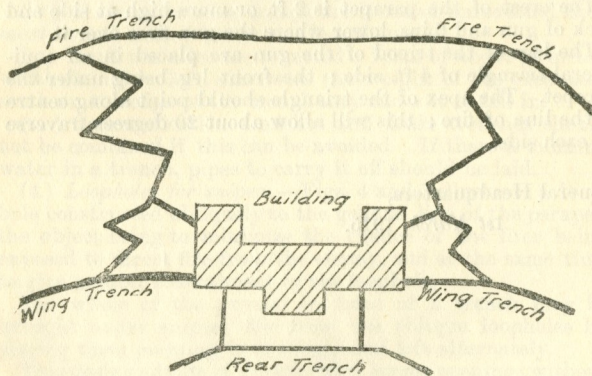


FIG. 2.

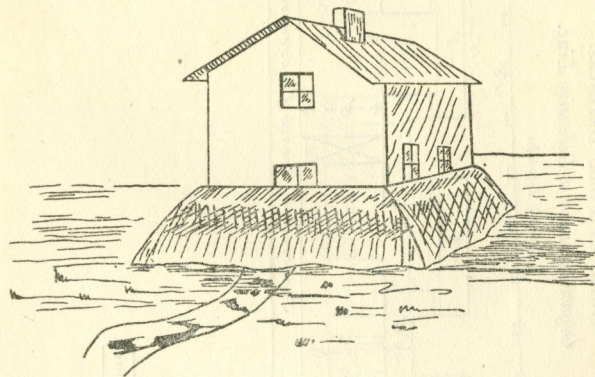


FIG. 3.
NOTES ON FIELD DEFENCES.
Organization of a Defensive Line.

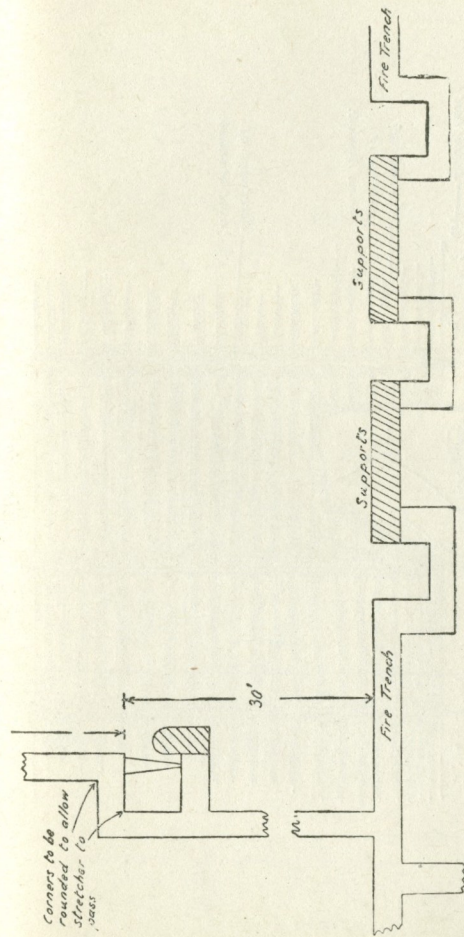
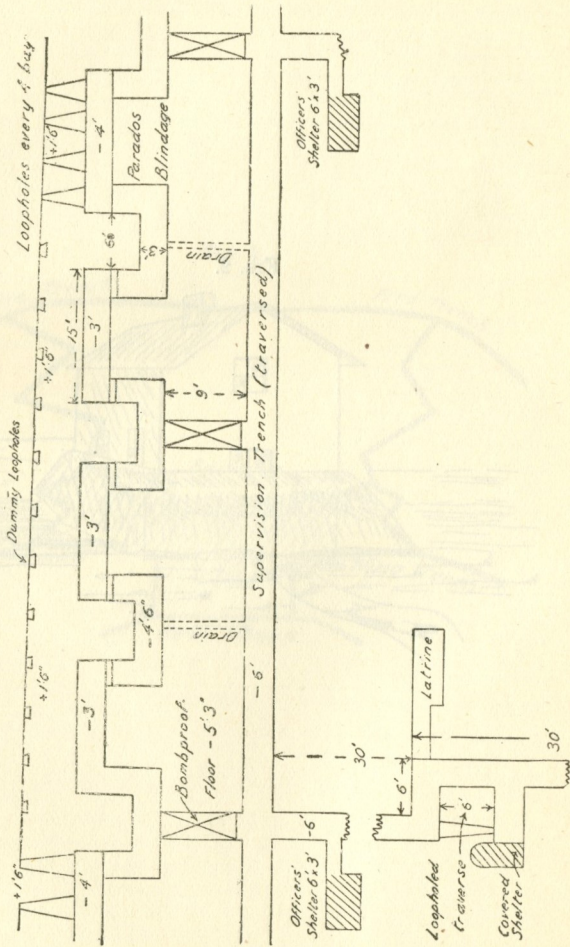


FIG. 4.—NOTES ON FIELD DEFENCES. Loophole to give oblique fire for sniping.

Box loophole placed obliquely in parapet.

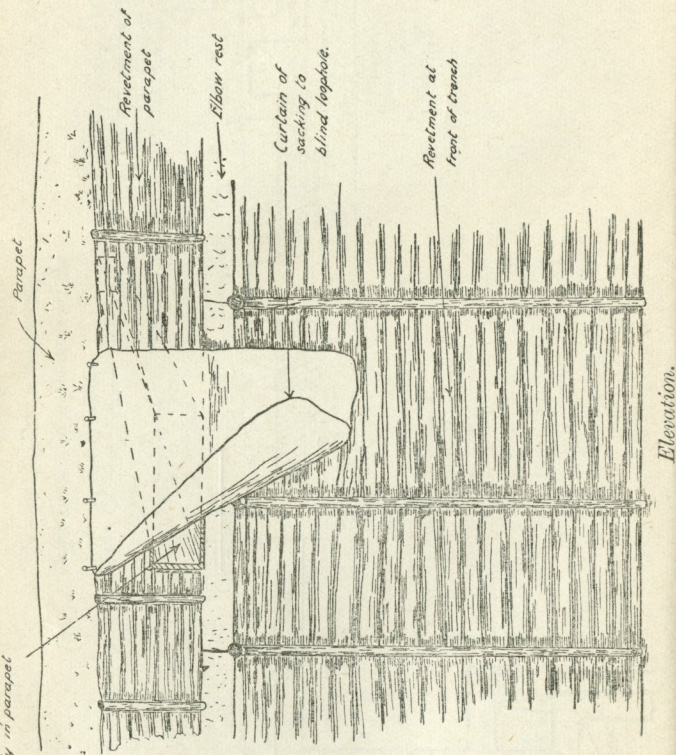
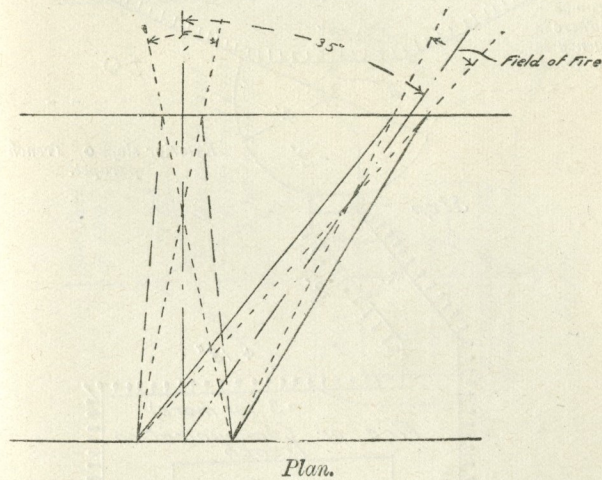
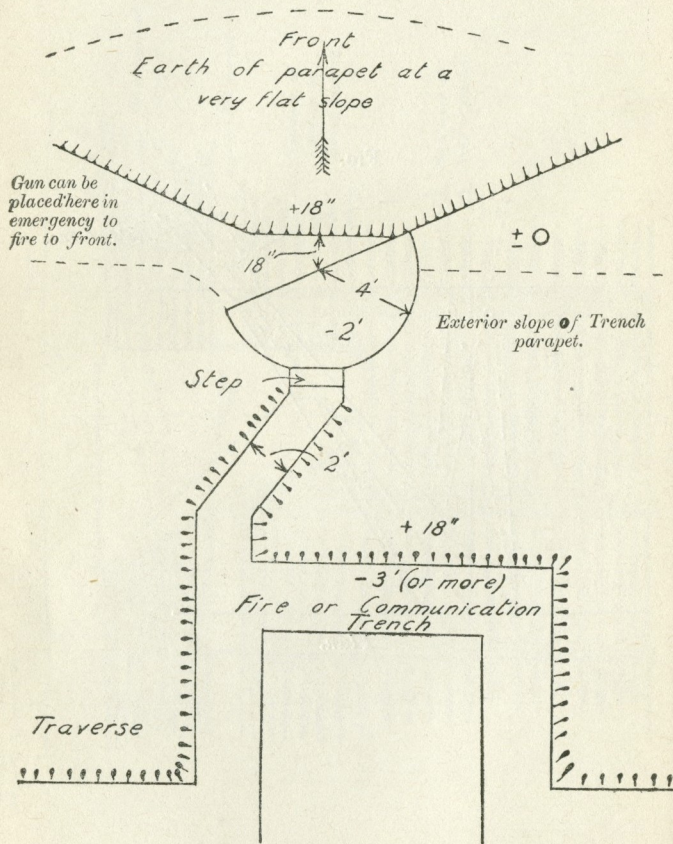


FIG. 5.



TYPE OF MACHINE-GUN PITS.

FIG. 6.



Scale for Fig. 6. 1 inch = 8 feet.

TYPE OF MACHINE-GUN PITS.

FIG 7.

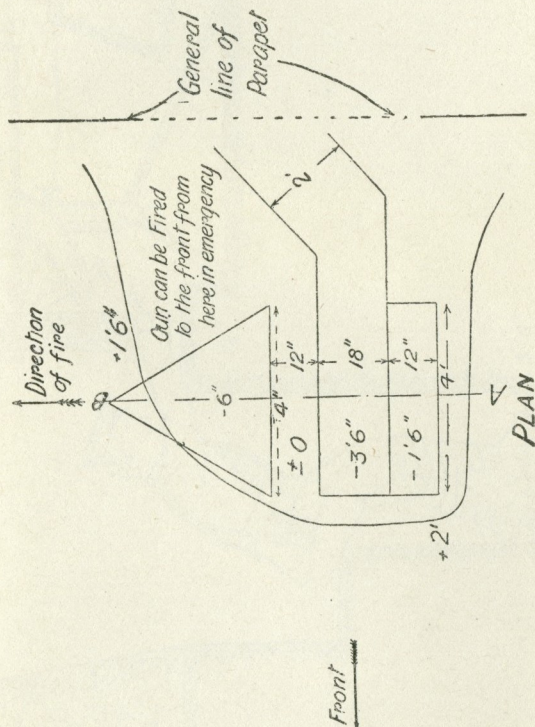
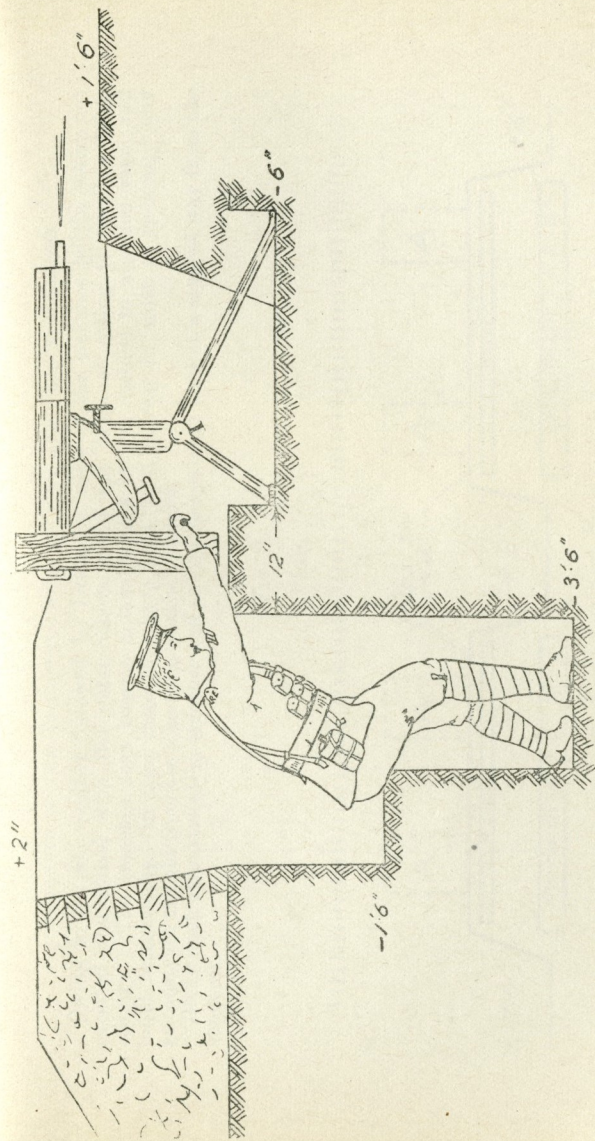


Fig. 8.



Section on A—B.

Scale for Figs. 7 and 8, 1-inch = 2 feet

CHANGES IN THE TRENCHES OWING TO WET AND FROSTY WEATHER.

Owing to the wet weather followed by frosts, the sides of the trenches fell in where not revetted and mixed with the water which would not drain off owing to the low lying country. The trenches soon became untenable and it was decided to abandon them and build breastworks. In most cases they have been built in rear in order to re-occupy and re-construct the old trenches when the weather permits.

Breastwork communication trenches and ruined houses were used as a covered way from the supports.

FIG. 9.
PLAN.

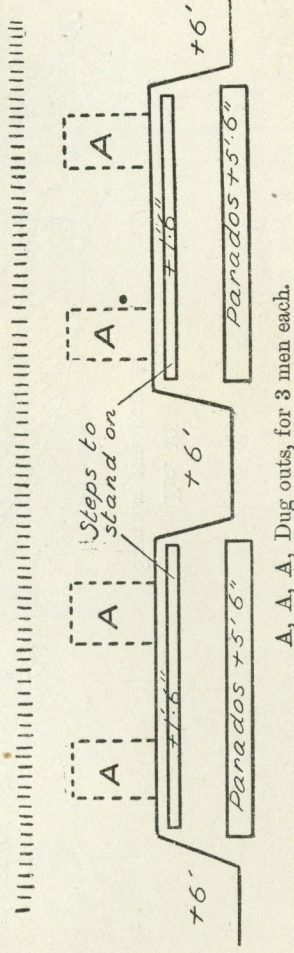
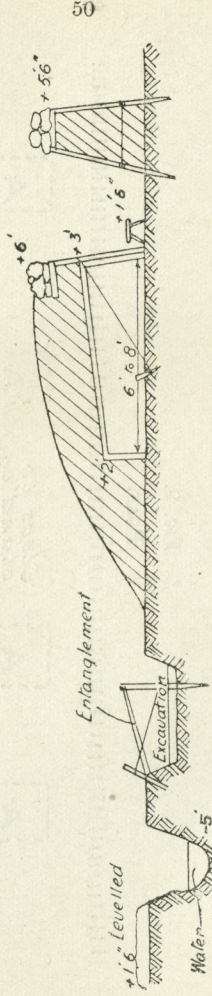


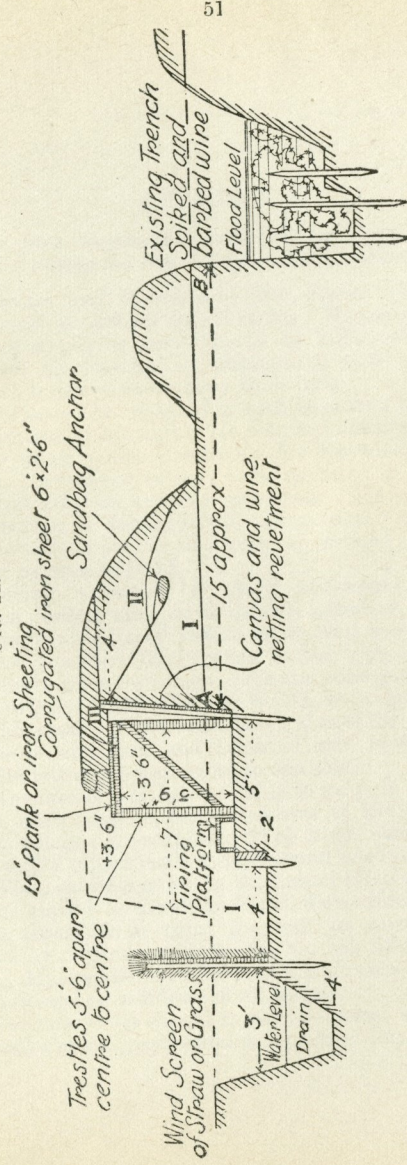
FIG. 10.
SECTION THROUGH A.



50

BREASTWORK.
Alternative Type.

FIG. 11.



51

NOTE.—A, B, should not be less than 15 feet.

- 1st Relief.—Excavate 9 feet back from cutting line, leaving 1 foot step (1 digger, 6 feet, 78 feet cube).
2nd Relief.—Erect canvas and wire revetment excavate drain and complete breastwork to 3 feet 6 inches.
(1 shoveller to 2 diggers required.)
3rd Relief.—Make splinter-proof shelter.

APPENDIX A.

Extracts from Regimental Orders of a Cavalry Regiment published during the War—August, 1914, to February, 1915.

1. *Marches and Operations.*—The general direction of a march must be known by all ranks. Whenever hostilities are likely a *rallying point* should be indicated beforehand for which all detached or dismounted men will make if unable to rejoin or accompany their unit.

2. The *second in command* of each squadron will normally march in rear of his unit. No man is to fall out to shoe, or for any other purpose, without his knowledge and permission. *Straggling* of any sort, mounted or dismounted, will invariably be severely punished. The rear troop of the squadron or regiment will always detail an N.C.O. and two men to look out for and pick up articles of *equipment dropped* by men in front.

3. During a march, or day's operations, troop and squadron leaders must on their own initiative, if necessary, find opportunities to *off saddle, water, feed or graze*.

4. The "*numbers three*" when halted with led horses are not to leave them for forage or for any other purpose without the knowledge of the officer or N.C.O. in charge.

5. The *crown of the road* must always be left clear for vehicles of any sort, and mounted men must when they meet the latter get well away to one side.

6. *Wounded or sick horses* unable to keep up with the unit should, when possible, be handed over to the mayor of the nearest village; a receipt should be taken, name and address noted, and a report made to regimental headquarters.

7. When *entering streets* in the face of likely opposition the advance should as a rule be rapid, dismounted, up one side of the street, from point to point or corner to corner, covered by a party ready to fire up the other side of the street. Meanwhile, men in rear will at once begin to open up the doors and windows of all houses.

8. *Long range fire* should rarely be opened without special permission of the regimental or squadron commander. The

advantages of retaining fire and *surprising the enemy* should be impressed upon all ranks by day and night. Nothing pays so well no matter what the circumstances be.

Loopholes must be inspected at dusk every day to ensure that muzzles will point low and in the right direction.

Bayonets must be tied or wired on when occupying trenches at night.

9. During field operations or marches near the enemy *no led horses* (spare or pack) are to accompany squadrons.

10. During halts on the march, or when operations are in progress by day or by night, men may *sleep* only with the permission of troop or squadron leaders.

11. When in the vicinity of the enemy *no smoking* is permissible during the hours of darkness.

12. The first duty of all *sentries* is to see and hear without being seen or heard. They are not to stamp noisily about or stand in prominent positions; and their challenge should always surprise at very close range the person challenged.

13. Sentries normally watch by day and listen by night. *Silence* by night is therefore essential and unnecessary noises must be sternly repressed. A sentry is safest and therefore often (but not always) best where he can least easily be surprised; one or two men who keep still will seldom be seen by the enemy even if quite in the open.

14. A "standing patrol" should usually take the form of a *lying down surprise*, i.e., a small post ready to fire and an observer or listener well out to the front.

15. In enclosed country or by night *protective detachments* must pay particular attention to all *cross roads* near the force being protected. In open country and by day they must pay particular attention to all *observation posts* from which shell fire might be directed by the enemy's observers.

16. Any force halted near the enemy must *expect to be shelled*. But if the leader has decided beforehand what action he will take if shelled, and has made the necessary arrangements (such as cutting wire), the force should be able to change its position before the enemy find the range.

Aeroplane look outs should be posted whenever concealment is required. Their alarm signal will normally be a series of long and short blasts upon a whistle upon which all ranks will either hide or remain perfectly still.

Aeroplanes are not to be fired at without orders from the commanding officer or a squadron leader.

17. No officer should be *detached upon a patrol* or other duty which could equally well be carried out by a non-commissioned officer.

18. The success of a reconnaissance, or any detached mission, depends as much upon the *clearness and precision* of the instructions it receives from the officer who sends it out as upon the skill of the officer who conducts it. Instructions must be repeated and repeated till no possible misunderstanding can remain.

19. All ranks possessing *maps* must make full use of them and at any moment of the day know exactly where they are. When possible (which is almost always) maps must be studied before rather than during any operations; all water should be blue pencilled, if not already blue, and probable observation posts marked with red crosses. Constantly, during the war, invaluable time has been lost whilst leaders suddenly called upon to take some action fumbled with their maps and wondered where they were.

20. *Advanced guard leaders* must invariably be ready to point out neighbouring villages, &c., and to show where the ground in front can best be viewed by superior officers or artillery officers arriving from the rear.

21. All ranks must know the normal *message form*, an example of which is at the end of these orders. *Indelible pencils* are not to be used.

22. *Important messages* must be sent in duplicate or triplicate and by different routes or means.

23. *Billets*.—Squadron leaders must be acquainted with the *situation of each other's billets* and of billets of neighbouring units. A sketch or plan of squadron billets should be sent early to regimental headquarters.

24. No man may leave the billeting area of his squadron without a *written pass*. In standing billets the *roll* should be called every night and morning and occasionally at unexpected times by night or day.

25. When occupying *new billets* both regimental headquarters and detached squadrons will post sentries on the main approaches (a) to look out for and direct the supply column and (b) to direct all messengers to headquarters.

26. Squadrons or troops detailed as *reserves* or *inlying*

piquets should normally be placed in the least exposed billets so that they can muster under the best possible conditions. In order to maintain their strength they should rarely provide more than line sentries and sentries over arms.

27. Officers in charge of *billeting parties* must be prepared to suggest suitable defensive arrangements as soon as the squadrons arrive. On reaching new billets they must at once warn the inhabitants about the rules regarding civilians (see 33 and 34).

28. The squadron orderly officers and orderly serjeants will visit their sentries separately and at varying hours every night. The orderly officer of the squadron nearest headquarters will visit the headquarter sentries every night. Sentries even in standing billets are to be posted as laid down in order 12.

29. To ensure no unnecessary delay in turning out *officers' servants and officers' cooks* will always sleep with the nearest guard.

30. Charcoal braziers are not to be burnt inside any farm buildings, sheds or lofts. Smoking and the use of naked lights is strictly forbidden in any place or shelter liable to catch fire, or visible to enemy observation posts.

31. In the event of fire in billets men will stand to their horses and remove those in any danger. Men of those horses not in any danger will then double to the scene of the fire with their water buckets and will there work under the order of the senior officer on the spot. There is to be no noise or shouting.

32. The alarm in standing billets will be sounded on the trumpet. If in touch with the enemy a special alarm signal will be agreed upon every night. In the event of an alarm or sudden turn out defaulters or men awaiting trial will, if fit for duty, take their places in the ranks.

33. No strange civilians will be permitted to enter or leave billets without a pass. The R.S.M. and the senior interpreter will normally deal with all civilians and will issue these passes. No civilians will be allowed to move out of their houses between dusk and dawn. When new billets are first occupied arrangements will be made to post civilians with our guards so that all strangers may be quickly recognized.

34. All wine shops (*estaminets*, &c.) are out of bounds until arrangements have been made with their owners, guards being placed upon them by the nearest squadron leader. When arrangements have been made, beer, cyder and wine may be sold to the troops but no spirits of any description.

35. When in standing billets troops are responsible for the *draining and repair of roads* within their areas.

36. *Sanitation*.—Men and horses must be kept accustomed to live in the open air so that when their turn for exposure comes they will not feel it. *Ventilation* must therefore be insisted on in all billets and doors and windows kept wide open.

37. *Water supplies* in billets must be clearly marked at once "drinking" or "foul." The medical officer, assisted by an interpreter, will see that these steps are taken.

38. *Hot baths* should be arranged for in standing billets. Men should generally be made to soap and swill down outside the bath (as do the Japanese) and only get into the bath when clean.

39. *Civilian latrines and waterclosets* found in houses or farms are not to be used by soldiers who must invariably dig their own latrines and urine pits.

40. Any cases of *sickness amongst inhabitants* of the area in which the regiment is billeted must be reported at once to the medical officer.

41. Each billet must have a *refuse pit* into which all empty tins and rubbish must be collected. Incinerators where possible should be constructed.

42. When *billets are vacated* they should be thoroughly cleaned up before departure. The quartermaster will normally be responsible for a final inspection but in scattered billets each squadron should depute an officer.

43. *Claims made by inhabitants* should be investigated before departure and a mutual agreement arrived at if possible as to amount due for damages, &c. Three copies of this agreement should be made, one being left with the claimant and one being sent to regimental headquarters. No public money is to be actually paid in settlement of such claims. If no claims are made and the inhabitants appear to be satisfied a certificate to that effect should be sent to headquarters.

44. *Arms.*—In all *dismounted work*, including the occupation of trenches, troop leaders and serjeants will carry rifles and bandoliers, taking the former from a "number three." They must remember, however, that their duty is to command and not to shoot.

45. *Rifles* must be inspected daily by troop leaders. *Sword and bayonet points* are to be kept sharp and frequently inspected. When occupying trenches rifles should be inspected three or four times daily. It is important that the gas escapes of rifles be kept clear and clean.

46. Under no circumstances, by night or by day, are men to be parted from their rifles. Carrying the rifle should become a matter of habit, and men should be as unwilling to be parted from their rifles as to be parted from their breeches.

The number of the rifle in possession of each man must be known to his troop leader and *careless loss or damage* to it severely punished.

47. Men going sick must take with them their arms and equipment. But the arms and equipment of men sentenced to penal servitude or imprisonment will be sent back to the base.

48. *Magazines* will remain always charged, but in standing billets one clip (5 rounds) only will be inserted. Magazine springs should be frequently pressed up and down to keep them elastic and in proper order, but the spring should never be oiled.

49. All sentries will carry bayonets fixed.

50. When occupying trenches rifle bolts and muzzles should be kept covered with some sort of wrap. Many minor disasters can be traced to dirty rifles failing to fire at a critical moment.

51. *Equipment.*—Unauthorized articles of equipment are not to be carried on either man or horse. Both have quite enough to carry already.

52. Leaders of all ranks should bear in mind that frequent inspections of all sorts are of even greater importance in war than in peace. The first halt by daylight after an early morning start, or the first halt after a hurried turn out, should be employed by troop and section leaders for a very careful look round.

53. In order to check *wastage of clothing and equipment* squadron or troop leaders will keep lists of what is issued to each man, and unreasonable deficiencies will be paid for. The cost of government articles will be credited to government and the cost of private articles will be credited to squadron or troop funds. The latter may be expended in any manner beneficial to the men.

Squadron equipment such as *field glasses, wirecutters, &c.*, must frequently be checked.

54. Squadron commanders will indent only for such stores as they require for immediate issue. Squadron wagons are not to be loaded with *spare stores*, but the latter will remain in charge of the quartermaster, who will carry what he can and deposit or return remainder. The only spare stores permissible in a squadron wagon are food stores—not to exceed one day's ration of bully beef and biscuit.

55. Every officer and non-commissioned officer must be in possession of *Army Book 153*. These are to be retained mostly for field operations and used sparingly in billets as they are with difficulty replaced.

56. Each man must possess, complete and in good order, the following:—

Arms—Sword, rifle (magazine charged), bayonet.

Equipment—Haversack, waterbottle, bandolier (filled), spurs, mess tin, emergency rations, field dressing.

Clothing (winter scale).—Cap, jacket, pants, cloak, waterproof cape, ground sheet, blanket, saddle blanket, putties, boots, gloves, mittens, scarf, Balaclava cap, braces, jersey, towel, shirt, drawers, housewife.

Horse.—Saddle and saddlery complete, nose bag, water bucket.

Spare.—Poncho blanket, shirt, vest, drawers, two pair socks.

57. *Picketing pegs* are rarely used and only a percentage, not to exceed one per horse including draught horses, are to be in possession of a squadron. If a single picketing peg is ever used horses should be shackled to it by the fore leg.

58. *Nosebags* should be carried never more than two-thirds full; filled more than that they become undone or break when trotting. They require constant inspection and repair.

59. *Water buckets* may be used to carry a bread ration but nothing else.

60. All ranks must be frequently practised in *rapidly turning out* in full marching order.

61. *Dress*.—Men wearing *articles of civilian dress* render themselves liable to be shot as spies if captured.

62. When mounted all ranks will wear the *chin strap* down.

63. Great coats must be *buttoned back* over the knees in all dismounted work.

64. During the winter months men should draw *boots large enough* to enable them to wear two pairs of socks.

65. *Waterproof capes* are not to be taken away from the regiment by men becoming casualties for any reason.

66. *Worn out or part worn boots* are not to be thrown away but returned to the quartermaster for despatch to the base.

67. When *cap badges* are not available caps must be neatly marked with number and initial of regiment in the place where the badge should be.

68. *Scarves and mufflers* should not be worn habitually but reserved for night wear or exceptionally cold weather.

69. The *poncho blankets* and *spare underclothing* will, when the regiment moves, be packed in sacks, the sack of each troop or section being clearly marked.

70. *Rations*.—Losing or consuming the *emergency ration* without orders will be dealt with as a crime. Unreasonable deficiencies will be replaced on payment of 1s. to squadron or troop funds.

71. *Unconsumed rations* must be returned through the quartermaster to the supply column. The private sale of rations of any sort is strictly forbidden.

72. *Ration rum* may be issued, under supervision of troop leaders, diluted with tea but is not to be issued neat.

73. Every endeavour should be made by all ranks to *prevent wastage* of oats, hay, hay seed or straw.

74. The *regimental transport* is under the general supervision of the quartermaster, or of any officer who may be appointed by the Commanding Officer transport officer in addition to his other duties. Under him the transport serjeant will be in charge of B echelon carts and a selected serjeant will be in charge of A echelon carts. Squadron

commanders will, however, occasionally inspect the wagons, harness and horses belonging to their squadrons and see that no unnecessary or unauthorized loads are carried and that wagons are properly packed.

75. During any *period of active operations* carts will be unloaded only of things actually required at the moment and they must be ready to move at short notice by night or by day.

76. *Spare harness* should be kept on or with spare draught horses, and not in the carts.

77. *Discipline*.—Troop leaders are responsible that all their men *know and realize* the heavy penalties attached to crime on active service.

78. *Looting* of even the most minor things is to be sternly suppressed.

79. Quite irrespective of rank no officer or soldier will pass, or be passed by, any officer or soldier of the *Allied Armies* without some act of friendly recognition. Men must be taught to recognize foreign officers and to salute them in the proper way.

80. *Leave* of any sort will be withheld for a period which will be decided by the Commanding Officer from those troops in which cases of drunkenness, venereal disease or absence without leave occur.

81. In any *dispute with an inhabitant* an interpreter must be summoned at once and all negotiations carried on through him.

82. *Stable management*.—Every horse is to be clearly *branded* with number and initials of regiment and with a squadron number as soon as it joins. Brands which wear out must be renewed.

83. The *personal responsibility of each man for his horse* should be brought home to him in every possible way. Once allotted to a man, a horse should not be changed except for urgent reasons. Men whose horses become casualties should, if possible, be made to suffer some inconvenience if not punishment.

84. *Manes* should be kept hogged or very thin. *Tails* should be kept short in the winter months, but *fetlocks* allowed to grow long.

85. Men should be warned of the danger of catching *lice*, *ringworm* or other forms of *skin disease* from their horses.

86. Men whose *horses break loose* in billets will be made to sit upon them for a considerable time.

87. *Books*.—Troop leaders will keep up *note books* containing all necessary and useful information about their men. Squadron leaders will similarly keep up *note books* containing all necessary and useful information about their non-commissioned officers. These books will, as far as possible, be kept confidential. They should be packed up in officers' kits whenever the regiment moves and not carried on the person. These records are essential and must be *complete*, containing such items as (i) employment or capacities for employment in civil life; (ii) home address; (iii) when joined regiment; (iv) engagements taken part in and conduct under fire; (v) acts of gallantry or good work; (vi) crimes committed; (vii) health; (viii) capabilities as a soldier, *e.g.*, musketry, riding, horsemastership, signalling, &c.; (ix) general estimate of the man (which may vary from time to time) and suitability for promotion. At least one page is therefore necessary for each man, and probably two. Records of these sort, properly maintained, very greatly reduce the disadvantages of a change in command as officers become casualties or are transferred.

88. Troop leaders should themselves *write to the relatives* of men who are killed or wounded.

89. Squadron leaders will keep records of *men or horses sent back to the base* and the reasons for which they have been sent. Men sent back with sick horses should be selected from those least wanted in their squadrons.

90. *Correspondence*.—Letters must be *censored* by troop or squadron leaders. Once censored and signed by an officer they must be securely closed before being sent to regimental headquarters.

91. Men may notify their relatives and friends of their *address* (*e.g.*, Private X., "A" Squadron, Hussars, B.E. Force), but this notification must be embodied in the text and not written as a heading.

92. All ranks are warned against causing or allowing extracts from their letters to be *published in the Press*.

Intelligence summaries or official documents issued in the field are on no account to be posted home. No official records or papers of any description are to be left in billets when vacated.

93. *Training*.—Every effort must be made during halts in billets to keep men either *busy or amused*. Idleness means ill health, discontentment and bad discipline. There is plenty to teach and to learn about war and leaders must use their initiative and their powers of imagination.

In standing billets a weekly programme will be submitted to regimental headquarters every Sunday evening showing work to be carried out the following week, time and place. Any changes in this programme to be notified at once to headquarters. Free gymnastics must be given to men who are slovenly in their movements.

94. One or two men per troop must be trained by the medical officer in *sanitary duties*. One or two other men per troop must be trained in *first aid duties*. There should never be less than one man per troop acquainted with these duties and casualties must be replaced as they occur.

95. *Promotion*.—All ranks must clearly understand that *promotion* will be given to those who are believed to deserve it; and that age or seniority on the regimental list do not, in themselves, constitute more than a claim which will receive due consideration. After any period of fighting squadron leaders will submit the names of non-commissioned officers or men who have shown marked gallantry, ability or zeal; and the names of those whose conduct has not come up to expectations.

96. *Casualties and reports*.—Squadron leaders will render *casualty reports* by 5 p.m. daily. These should show the names and regimental numbers of men killed, wounded, missing, joined, or sick. In the case of men being evacuated sick the cause should be stated. In the case of men killed, their pay books and an accurate description of their burial place should be sent to regimental headquarters.

Casualty reports will also show casualties amongst horses, stating whether riding, light or heavy draught.

97. When marching out of billets all *sick horses* will be sent to echelon B, one mounted man leading two horses. A list showing the number of horses and the names of the men leading them will be sent to the veterinary officer.

98. Squadron leaders will render their *imprest accounts* on the last day of every month. They should keep copies of all their receipts before parting with originals.

99. *Command*.—Regimental headquarters will be com-

manded by the assistant adjutant. A and B echelons of transport will be commanded by the quartermaster. In all the orders above where troop leaders are mentioned the orders will apply equally to the assistant adjutant, the quartermaster, and the commander of the machine-gun section.

*Lieutenant-Colonel,
Commanding.*

On Service,
8th February, 1915.

NORMAL MESSAGE FORM:—

*Hussars (or Cav. Bde. or
Cav. Div.)*

No. 4—8/2/15. *Enemy appears to be withdrawing towards Bailleul. Our infantry has reached Flêtre. My troop will now push on to Meteren.*

Flêtre, 10 a.m.

*F. R.,
Lieut. Hrs.*

Economise words as in telegrams, but make meaning perfectly clear. Write very distinctly. Keep carbon copy of message.