DEFENSIVE COMBAT
OF
SMALL INFANTRY UNITS

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MARINE CORPS SCHOOLS
MARINE BARRACKS, QUANTICO, VIRGINIA
1943

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Tables of Organization
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DEFENSIVE COMBAT OF SMALL INFANTRY UNITS

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MARINE CORPS SCHOOLS
MARINE BARRACKS, QUANTICO, VIRGINIA
CORRESPONDENCE SCHOOL
1943

DEFENSIVE COMBAT OF SMALL INFANTRY UNITS

REQUIREMENT

TEXT: Defensive Combat of Small Infantry Units, MCS, (Revised 1943). Tables of Organization revised 15 April, 1943.

MATERIALS: Aerial photograph as listed in subparagraph "a" of General Situation; Overlay.

PURPOSE: To give the student application in the utilization of the terrain, the location and coordination of units and infantry weapons as applied in the organization of a company and a battalion defense area, and the conduct of the defense.

1. General Situation.—a. Special Aerial Photograph, 1:3,400; Overlay.

b. Pursuant to successful landings on a beach south of the area shown on the aerial photograph, the 4thMarDiv is moving rapidly north with the mission of intercepting a larger Red force known to be advancing against the beachhead.

c. The 1stBn23dMar, an element of the Blue force, has been moving to the north via ROUTE 645. Contact is imminent and the battalion is marching in a semi-deployed formation. Machine-gun units are attached to rifle companies in readiness for prompt action. An advance guard, Company "C", is covering the zone of advance.

d. At 1550, upon reaching the next designated phase line, ROUTE 608, the company commanders of Companies "A" and "B" were met by a runner bearing a message from the battalion commander. In accordance with this message, Captains Companies "A" and "B" followed runner to hill-top "X" where they joined the battalion commander and staff personnel, were oriented, and received an oral order as follows:

"Refer to your photos.

"The regimental commander has informed me that divisional reconnaissance detachments to our front are being driven back toward CEDAR RUN. Our aircraft reports strong RED forces of all arms moving south. We may expect a weak attack within two hours, and a strong one within six hours.

"The 1stBn14thMar (artillery) is in direct support of the regiment. One normal barrage, as shown on photo, has been allotted to this battalion.

"The 2dBn is on our right and the 24thMar on our left.

"Company "C" now occupies this high ground. It will remain in position until the establishment of the combat outpost.

"This battalion, with the 1st37mmGunPlat of the RegtWpnCo attached, will immediately occupy, organize and defend an interior defensive position on the MLR, which is along this high ground overlooking CEDAR RUN (pointing).

"Company "A" with the 1stSec1stPlatCo"D" (machine guns) attached, will occupy, organize and defend the left forward defense area as shown on the photo. Tentatively your left boundary will go up the draw just left of that line of trees, and include the farmhouses there (pointing to photo). Your right boundary will include that wooded draw (pointing).

"Company "B" with the 2dSec1stPlatCo"D" and the 2dPlatCo"D" attached, will occupy organize, and defend the right forward defense area from that draw (pointing), exclusive, to the battalion right boundary (tentative), as shown on the photo.

"Company "C" will establish immediately a combat outpost of one platoon with the 3dPlatCo"D" attached, along the near bank of CEDAR RUN to the front. Route of withdrawal of outpost—along either battalion boundary. Company "C" will organize and be prepared to defend the rear of the battalion defense area south of ROUTE 608. It will remain mobile for counterattack into either front line company defense area. Counterattack directive later.

"3d Platoon, Company "D", upon completion of outpost mission, will be emplaced along the edge of woods to our rear (pointing) with the mission of executing long range fires on the distant ridge line to the front. Major "Company D" will coordinate the missions of all machine guns. Upon arrival of reserve guns, Major "Company D" will emplace them, paying particular attention to the draws in Company "B" defense area that are not already covered by automatic weapons fire, and to the flanks of the battalion defense area.

"Lieutenant "Mortar Platoon"—Look for suitable position areas for the 81mm mortars. Primary target areas are as shown on my photo.

"Lieutenant "37mm Gun Platoon"—Reconnoiter CEDAR RUN as a tank obstacle. Be prepared to make recommendations for the location of your guns and suitable areas for the employment of antitank mines.

"Company Commanders submit overlays showing plan of fires.

"Priority of defensive installations:

Clearing fields of fire.
Antitank obstacles, road blocks and mine fields.
Foxholes.
Machine gun, mortar, and antitank emplacements.
Camouflage continuous.

"Administrative details later.

"Command posts; Battalion—See photo. Companies—report location when established.

"Bn Observation Post—See photo."

EXPLANATORY NOTE:

Machine guns form the skeleton of the battle position. Both the light machine guns and the heavy machine guns are at the tactical disposal of the battalion commander and he builds his defense upon them. Accordingly a battalion commander's order for a defense would usually contain more detail as to the employment of such weapons than the above order, including missions, number of sections to be placed in forward positions and those to be placed in rear positions, approximate position areas, and sectors of fire. In the given situation, however, previous attachment of machine guns to the rifle companies for the approach march, lack of time for the detailed reconnaissance and planning involved, and, to a lesser extent, the difficult nature of the terrain permit initial decentralization of control of the machine guns. Therefore, two of the three machine-gun platoons remain attached to the forward companies. Provision is made, however, for the coordination of their fires by Major "Weapons Company," with a view to necessary modification of dispositions to be made when opportunity permits. See Text, paragraph 210.

The reasons which dictate attachment of heavy machine guns to forward companies similarly demand that the company commanders concerned be responsible, at least initally, for the employment of the light machine guns of the Weapons Platoons.

2. **Special Situation.**—a. You are Captain "Company "A". You have just received the battalion commander's order for the defense. (Certain of the other elements affecting the defense of the battalion defense area, are or will be, emplaced as shown on the overlay.)

3. **First Requirement.**—a. Indicate on the **Overlay** the following:

(1) Location of all your machine guns (both attached heavy machine guns and light machine guns).

(2) Location of your front line platoons.

(3) Location of your 60mm mortars; their primary target areas.

b. In positioning the support platoon you plan (indicate choice by number):

(1) To have it occupy, organize and defend a defense area east of draw #6.

(2) To have it occupy, organize and defend a defense area to the west of draw #6.

(3) To have it occupy, organize, and defend a defense area across the entire width of the rear of the company defense area.

(4) To hold it mobile for counterattacking into the right or left platoon defense area, and to prepare a platoon defense area to the left of draw #6.

(5) To hold it mobile for counterattacking into the right or left platoon defense area, and to prepare a platoon defense area to the right of draw #6.

c. Indicate on the overlay your choice in "b" above.

4. **Special Situation, continued.**—a. You are Captain "Company C". You have completed the organization of the combat outpost and your plans for defending the rear of the battalion area. You receive the following message from the Battalion Commander:

"Prepare counterattack plans as follows:

Plan I—In case of an enemy penetration of Company "B" area.

Plan II—In case of an enemy penetration of Company "A" area.

"Attached hereto—overlay showing:
assumed penetrations;
machine guns and mortars available for support of counterattack;
Company "C" assembly area."

NOTE: The accompanying overlay contains only such information as is pertinent to Plan I. Plan II is not involved in the Requirement.

5. **Second Requirement.**—The details of Plan I as submitted by Captain "Company C". (Describe your plan by entering appropriate symbols on the accompanying overlay and by remarks on your paper in the following form.)

Plan for Counterattack

LD _____
Route to LD _____
Direction of Attack _____
Formation _____
Scheme of Maneuver _____
Objective _____
Employment of 81mm Mortars (four available).
Position areas _____
Initial fires _____ (show on overlay by symbols for secondary targets, circles with diameters of 100 yards.)
Signal to lift _____
Subsequent fires _____
Employment of 60mm Mortars (three available)
Position areas _____
Initial fires _____ (show on overlay by symbols for secondary targets, circles with diameters of 50 yards.)
Signal to lift _____
Subsequent fires _____

Employment of light Machine Guns (three available)

Position areas _____

Initial sectors of fire _____

Signal to lift _____

Subsequent fires _____

If your plan for counterattack would include requests for fire support from other weapons you know to be available to the battalion commander, state the nature of the supporting fires you would request.

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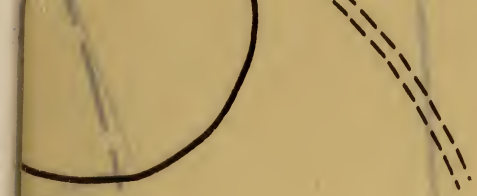


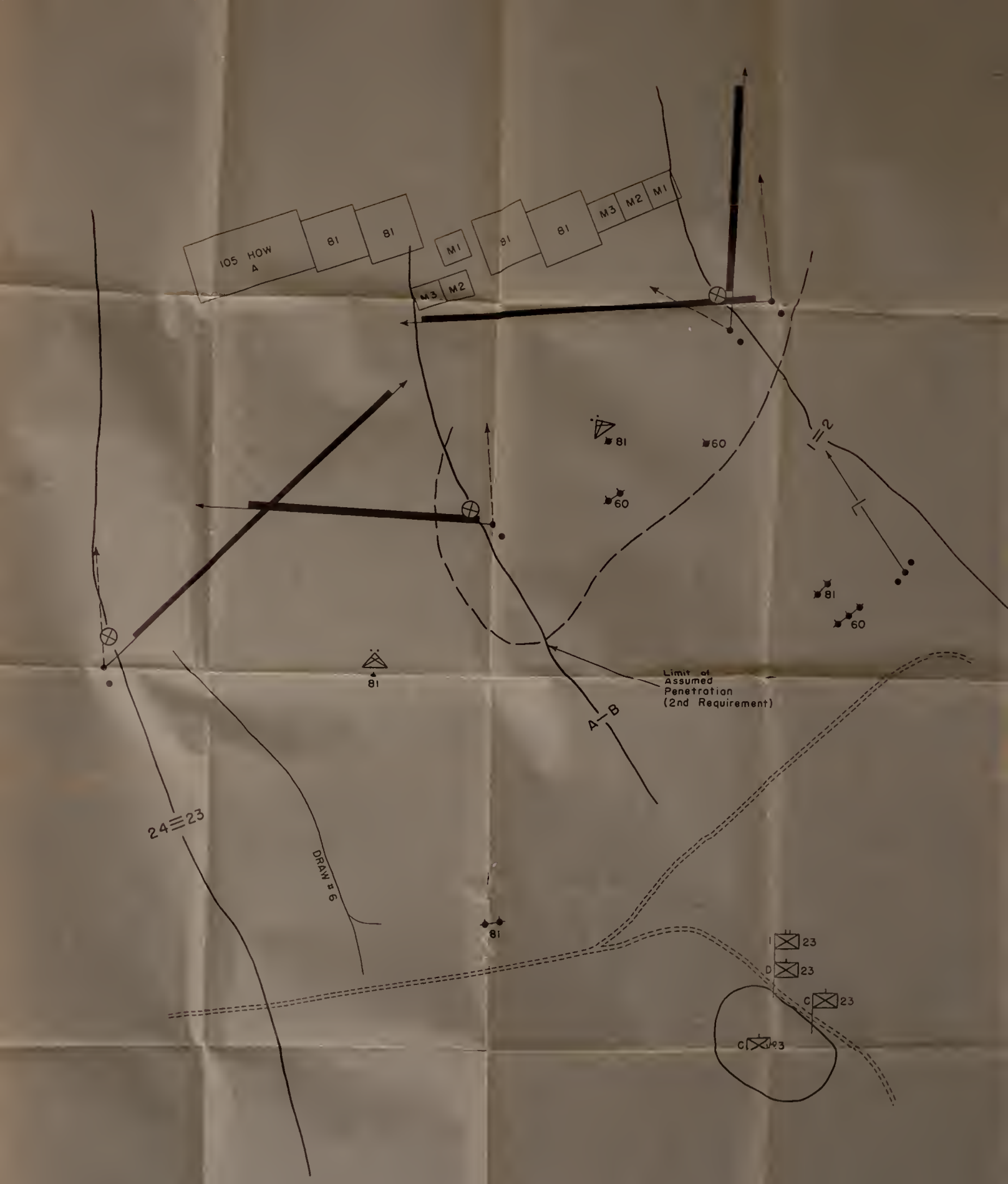
SPECIAL OVERLAY

TO ACCOMPANY

LESSON 11

SUBCOURSE NO. 10

RD 3725-4



SPECIAL OVERLAY

TO ACCOMPANY

LESSON 11

SUBCOURSE NO 10

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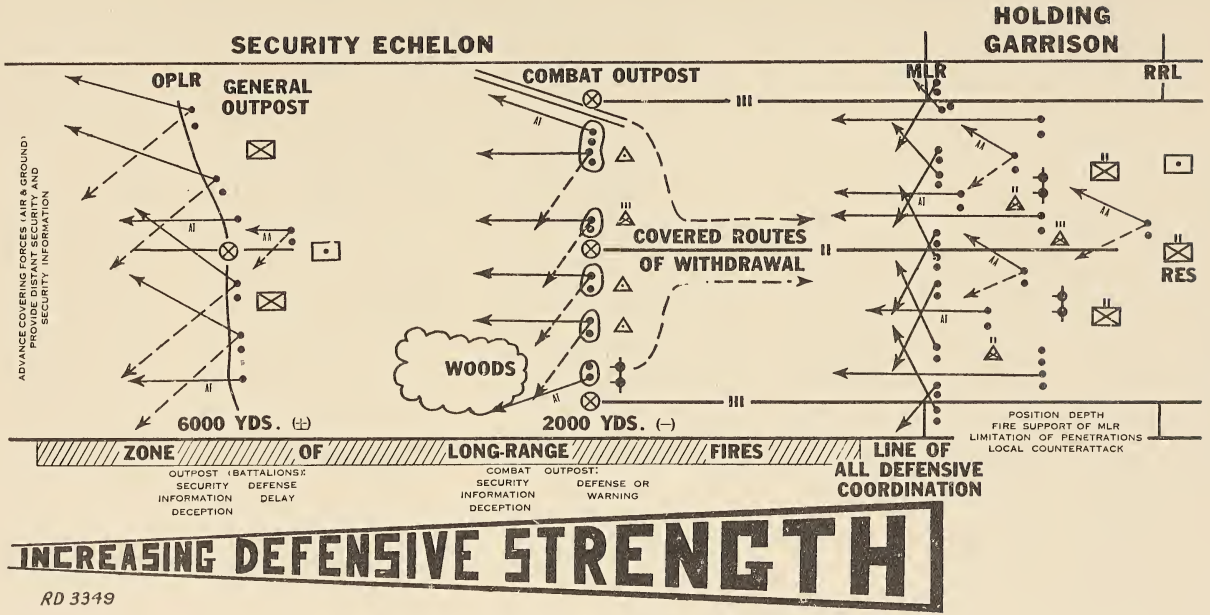
THE CONCEPT OF DEFENSE



UNITS WITHDRAW TO BATTLE POSITION

DELAYING ACTION

SECTION 1

GENERAL PRINCIPLES

1. **Assumption of the Defense.**—Small infantry units take up the defense upon orders of higher authority or when pursuant to their mission developments in the situation make it necessary to assume the defense.

Taking up the defense may be imposed by the enemy or it may be deliberately adopted, either temporarily with a view to the ultimate assumption of the offensive under more favorable conditions, or locally to economize forces in one locality with a view to massing superior forces in another. In either case, relative weakness on the part of the defensive forces is to be presumed. The defense must endeavor to compensate for this weakness by intensive resort to screening and concealment of its dispositions, to methodical preparation of fires, and to thorough knowledge, utilization and organization of the terrain.

The defense seeks to act by surprise. It frequently varies its procedure. Every effort is made to keep the enemy in doubt as to the location of the main line of resistance and the principal elements of the defense. Changes in defensive arrangements, camouflage, dummy works, skillful screening by securing detachments, and the activity of contact detachments in advance of the battle position mislead the enemy, induce him to adopt faulty dispositions, and expose him to surprise fire action. Unmasked defensive dispositions will be promptly neutralized, if not destroyed, by superior hostile means of action.

While the primary means of action of the defense is fire, the defender must be mobile and aggressive. The great stopping power of the fire of infantry weapons, which is increased by organization of the ground, permits wide fronts to be guarded by relatively weak holding elements. The economy of force thus effected enables the defending infantry to hold out reserves as maneuver units. It shifts these forces so as to meet the most determined blows of the attacker with maximum strength and counterattacks at points of decisive importance.

2. **Defense and Delaying Action.**—Depending on the object to be accomplished, defensive action may take the form of a sustained defense or of delaying action. The sustained defense seeks to stop an enemy attack in place. Delaying action seeks to hold off a decisive engagement, pending the development of more favorable conditions for battle, either in respect to time or to place.

3. **Mission of Infantry in Defense.** — The mission of the infantry in sustained defense is, with the support of the other arms, to stop the enemy by fire in front of the battle position, to repel his assault by close combat if he reaches it, and to eject him by counterattack in case he enters it.

4. **Selection of Position.**—Commanders of small infantry units exercise only a limited latitude in the choice of positions. The general location of the main line of resistance is indicated by higher authority. Its detailed location is determined on the ground by infantry commanders. The dominant factors influencing the detailed location of the main line of resistance are observation (both the defender's and the enemy's) and the location of natural obstacles.

The defense seeks to see while not being seen. The main line of resistance should cover terrain features essential to observation of the foreground of the position. As far as practicable, it should deny to the enemy facilities for observation over the approaches to the position from the rear. Considerations of concealment sometimes cause the defender to occupy apparently less favorable terrain in preference to ground offering greater protection or more extensive fields of fire. This sometimes leads to the occupation of reverse slope positions where an adequate field of fire can be secured. In such case, outposts, including sufficient machine guns for the required long-range fire missions, hold the crest in front.

Full advantage must be taken of natural obstacles which give protection against tanks. Good tank obstacles are unfordable water, marshes, closely strewn boulders, thick woods with trees of large diameter, steep slopes, steep broken ground and tree stumps of sufficient size to belly a tank. In regions exposed to tank attack, an adequate field of fire for antitank guns is essential. This may carry with it exposure to hostile view and artillery fire. In such case the holding by a strong outpost of a terrain feature which will screen the battle position from hostile ground observation, the multiplication of dummy emplacements and obstacles, the utilization of minor accidents of the ground, and other features offering concealment render difficult the recognition of defensive dispositions.

The exact location of a defensive position is greatly influenced by the suitability of the terrain for the development of infantry fire, particularly the flanking fire of machine guns. For this purpose, the main line of resistance is traced to include salients and re-entrants. Facility of communication within the position and the approaches from the rear increase the effectiveness of the defense. Absence of obstacles to the movement of reserves within the position is an important consideration.

5. **Field Fortifications.**—While in the selection of a defensive position full advantage is taken of the natural defensive strength of the terrain, field fortifications increase this natural

strength by the construction of works, such as trenches, obstacles, the laying of antitank mines, observation posts and routes of communication. It is the duty of every commander to fortify any position occupied by his troops, whether deliberately for defensive combat or only temporarily in connection with offensive combat, as when the attack is temporarily checked by enemy resistance, or when a halt is made in the advance for the purpose of reorganizing. While field fortifications constitute an integral part of defensive combat, it is not the purpose of this text to cover that subject in detail, the student being referred to "FIELD FORTIFICATIONS", a publication of the Correspondence School, Marine Corps Schools (1942).

6. **Distribution of Troops.**—As a rule the position is not defended by an occupation in uniform density along the entire front but rather by holding in strength the tactical localities which constitute the key points and by providing for the defense of the intervals between such points by fire and counterattack. The key points of a defensive system in the main are points that control the communications of the defense and terrain features affording extensive observation into the defensive position or over the foreground. Terrain features affording cover or concealment or good fields of fire to the front or flanks constitute minor tactical localities.

Troops of the defense are disposed in depth varying with the tactical situation. The objects sought by distribution in depth are to—

(1) Provide for security and gain time for manning the defenses of the battle position.

(2) Screen the battle position and keep the enemy in doubt as to its location.

(3) Facilitate resistance to the flanks and rear as well as to the front.

(4) Avoid offering the enemy a vulnerable concentrated target.

(5) Provide suitable positions in readiness for reserves.

For the accomplishment of these objects, the general distribution of infantry units comprises—

A security echelon
A combat echelon
Reserves

7. **Security.**—Security detachments protect the battle position from surprise ground attack and screen it from hostile observation and investigation. Fully organized outposts are established by regiments and larger units and are ordinarily located beyond the range of infantry weapons. Combat outposts are established by rifle companies and battalions when

regimental or divisional outposts are not established. Combat outposts comprise outguards of varying size depending on their location and mission. When the security position lies within close range of the battle position, combat outposts are established by rifle companies of the combat echelon and usually consist of one or more squads posted as outguards under a commander designated by the company commander. Beyond the close-range zone, combat outposts as a rule comprise one or more platoons usually selected from the battalion reserve, under a commander designated by the battalion commander. Fully organized outposts are usually essential when the battle position is located on a reverse slope or when attack by mechanized forces must be reckoned with and a strong natural obstacle does not lie in the immediate front.

8. **Battle Position.** — The main line of resistance coordinates the fire action of all elements of the defense. It forms the forward limit of the battle position, beyond which no infantry element may be placed during the defense of the position. It forms the inner boundary of a zone in which the entire defensive fire power is concentrated for decisive action. It defines and coordinates the missions of the units of the combat echelon and their reserves; they must hold their position against attack, and use their reserves to retake by counterattack any portion of the position which may have been temporarily lost.

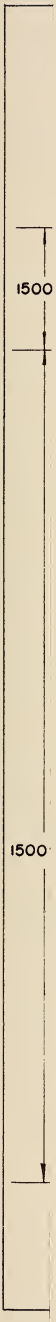
All defensive preparations are related to the defense of the main line of resistance. The basis of the defense is constituted by the fortified supporting points of the main position of resistance forming closed works organized for all-around defense. A defensive system based on holding successive lines results in dispersion of force and is applicable only to the purposes of delaying action.

Infantry units in the battle position are generally deployed in two echelons; a holding garrison designed for the immediate defense of a portion of the position; and a reserve. The entire strength of smaller units may be devoted to holding missions. A substantial portion of the larger infantry units is usually held in mobile reserve.

The holding garrisons consist of a series of small groups, usually built up around automatic weapons. They form mutually supporting closed works capable of all-around defense. Depending on the nature of the terrain, the rifle company or battalion is the largest infantry unit defending a closed defensive area. The unoccupied areas are defended by fire and counterattack. The distribution of holding groups depends on the tactical situation and the terrain. Normally they are distributed laterally and in depth over the battalion or company area in such manner that the fires of each cross the front or flank of adjacent or advanced elements.

Regimental reserves are primarily intended for counterattack of penetrating elements and flank defense of the regimental sector. They are held mobile in defiladed areas. They are prepared to move to departure positions for counterattack in case of penetration of the combat echelon or to flank lines of resistance in case of penetration of an adjacent regimental sector. Approaches to prospective departure positions and flank lines of resistance are reconnoitered as well as the terrain between departure positions and the combat echelon. Units on exposed flanks take special care to dispose reserves so as to meet envelopments. The size of units holding out forces for counterattack missions is influenced by the nature of the terrain and the extent of the defensive area assigned to the unit. On extremely flat terrain, lacking in cover, units smaller than a regiment will not usually retain a mobile reserve. On open terrain, with some cover, a battalion is ordinarily the smallest unit holding out a counterattacking element. Units holding exceptionally large sectors have greater need of a mobile reserve than those receiving a normal assignment. In close terrain a company or even a platoon may hold out a counterattacking echelon, especially when the unit is required to defend a relatively extensive area.

9. **Depths and Frontages.**—The depth of regimental sectors is usually 1,500 to 2,000 yards, depending on the terrain; that of a battalion area varies from 700 to 1,200 yards. The depth of company areas varies from 400 to 600 yards. Company and battalion areas should preferably include a mask behind which mortars and weapons assigned to antiaircraft missions can operate to advantage. The depth of platoon areas does not exceed 200 yards.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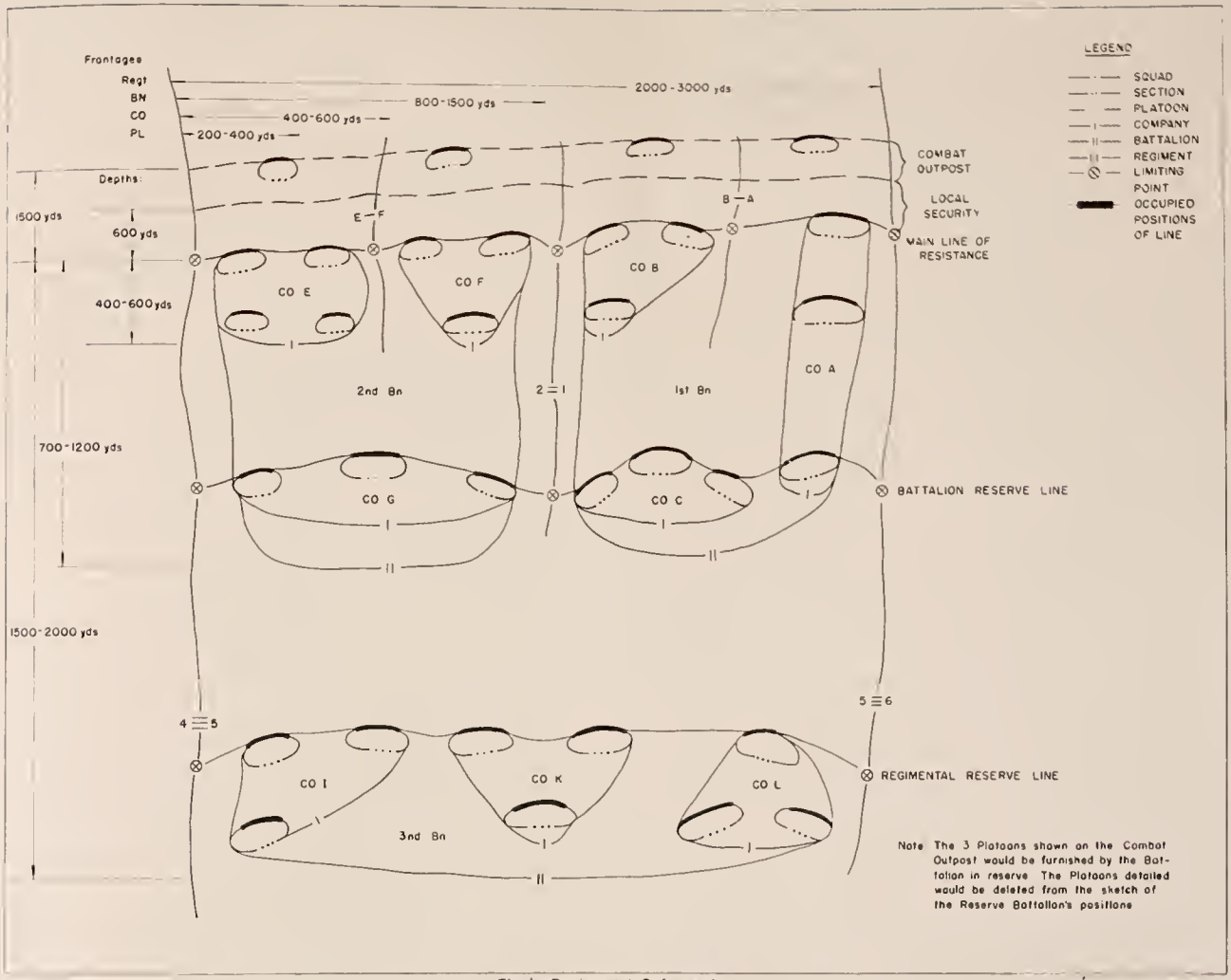

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Fig I Regimental Defense Area.
Illustrating Frontages and Depths.

The frontage which a unit can adequately defend depends upon many factors, including its strength, the terrain, density of supporting fires, and the character of the opposing force.

General limits for infantry units operating at war strength as part of an infantry division and with flanks protected by other troops are indicated as follows:

Unit	Frontages in Yards
Platoon	200-400
Company	400-600
Battalion	800-1,500
Regiment	2,000-3,000

Relatively narrow frontages are assigned on those parts of a position which permit of the covered approach of attacking forces to within close range of the position. Wide frontages are permissible where the hostile approach is exposed to observation and fire over a long distance. Obstacles along the front of the main line of resistance permit increase of frontage. Vital tactical localities are usually strongly held. At times, in order to effect economy of force, extremely wide fronts may be assigned to units in localities where a loss of ground will not affect the integrity of the defense as a whole. The mission of such units should be in keeping with their capabilities. The assignment of wide frontage to a unit decreases the depth over which its holding garrisons are deployed.

10. Boundaries.—Boundaries in the defense usually fall between critical localities so as not to divide responsibility for their defense or that of the principal avenues of approach. Sector boundaries usually extend to the front to the effective range of weapons with which the unit is equipped.

11. Observation.—During periods of active operations, all units from the squad to the regiment post one or more observers so as to hold the defensive area and its approaches under constant daylight observation. Companies and larger units establish regularly organized observation posts. In front-line platoons covered by outguards, squad observers may be dispensed with and the observation service carried out by reliefs of platoon observers.

12. Defensive fires.—The skeleton of the main line of resistance is constituted by machine guns and antitank weapons.

Close defense of the position is largely based upon reciprocal flanking action of machine guns. The direction of fire of flanking defenses often permits their concealment from direct frontal observation of the enemy and their protection from frontal fire. They, therefore, have the advantage of being able to act with surprise effect in addition to that of protection and concealment.

Frontal and flanking defenses mutually supplement one another and subject the attacker to convergent fires. Gaps in the fire bands of machine guns are covered by the fire of artillery, mortars, automatic rifles, and rifles. Riflemen and automatic riflemen furnish close protection for automatic weapons executing flanking fires and cover frontal sectors of fire.

Premature fires from positions in the main line of resistance disclose the main defensive dispositions to the annihilating fire of the hostile artillery. Machine guns charged with long-range missions fire from positions removed from the main line of resistance. They are often locattd on the position of the combat outposts. When the main line of resistance is on a reverse slope, some machine guns are initially moved to the crest for long-range missions. When sited to the rear of the main line of resistance, machine guns charged with long-range missions deliver overhead fires from masked positions. Fires from the main line of resistance are withheld until the proximity of the hostile infantry compels its supporting artillery to lift its fires.

13. Antitank Defense. — The means at the disposal of infantry units are chiefly employed for the defense of the main line of resistance. Where combat outposts are established by infantry battalions, some of the battalion antitank weapons may be temporarily attached thereto for the purpose of dealing with hostile reconnaissance vehicles. Regimental outposts may be reinforced by antitank guns where sufficient means have been placed at the disposal of the regiment.

Antitank defense includes active and passive means.

(1) The active means of infantry antitank defense comprise antitank weapons and antitank mines. In a limited measure, other infantry weapons, especially those firing armor-piercing ammunition, are effective against certain types of tanks.

(2) The passive means include—

Antitank trenches and tank traps.
Barricades (road blocks).

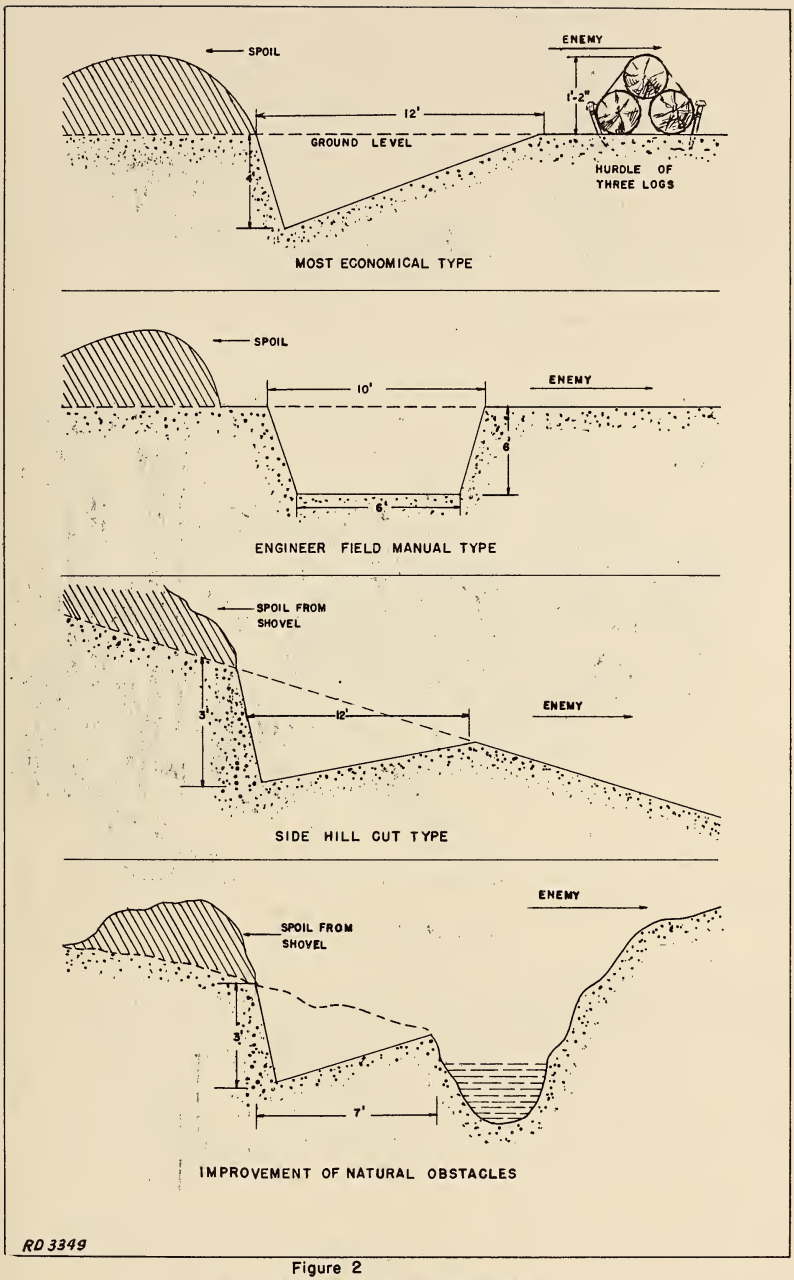
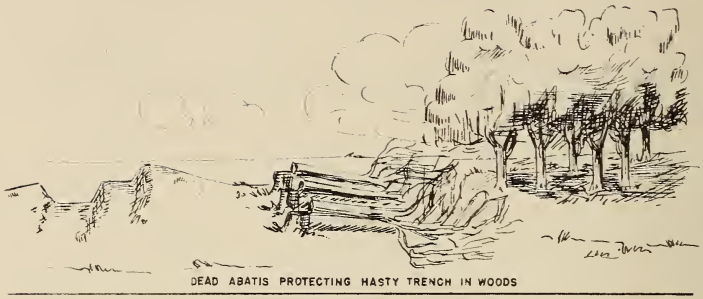
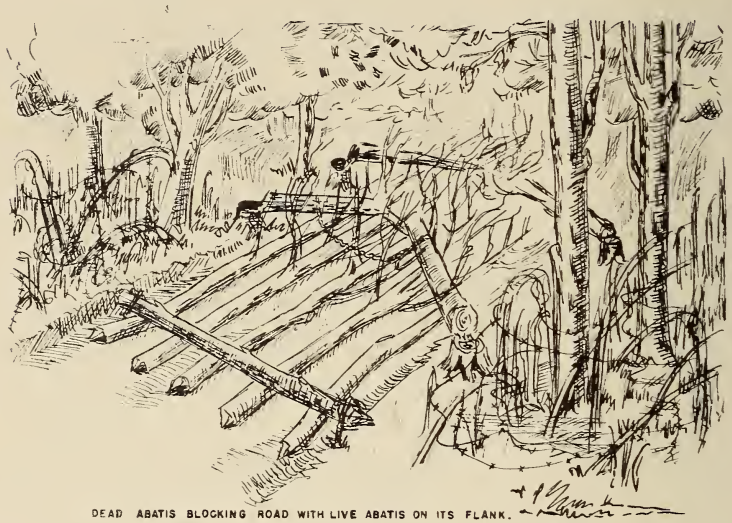


Figure 2
TYPES OF ANTI-TANK TRENCHES



DEAD ABATIS PROTECTING HASTY TRENCH IN WOODS



DEAD ABATIS BLOCKING ROAD WITH LIVE ABATIS ON ITS FLANK.

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TYPES OF ROAD BLOCKS

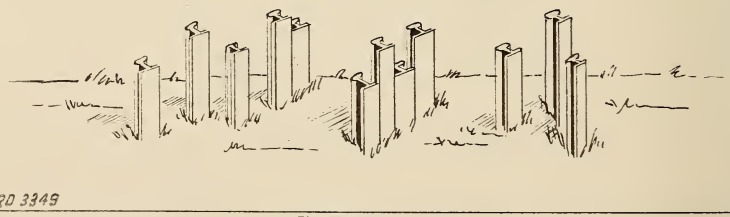

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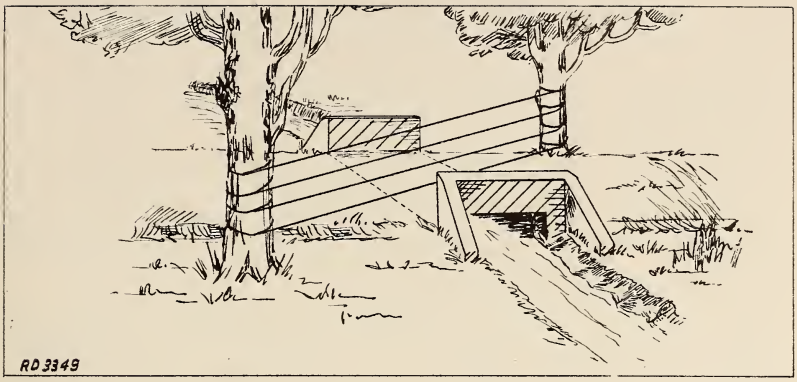
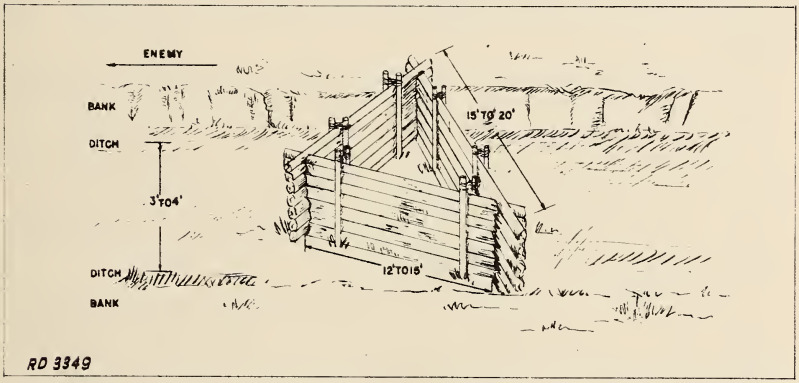
Figure 3

ANTI-TANK OBSTACLE





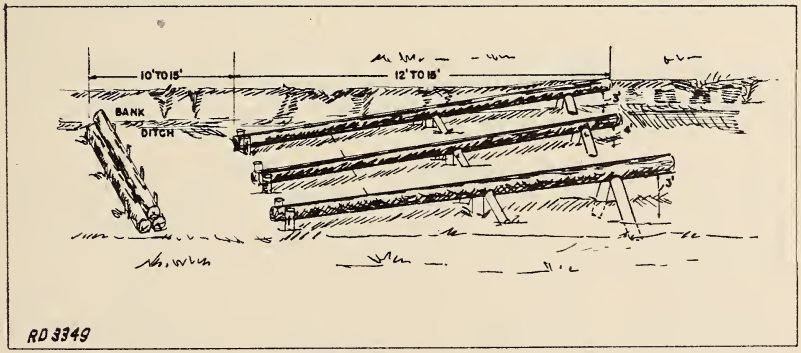


Figure 4

TYPES OF ROAD BLOCKS

The distribution of the means of antitank defense is based upon a reconnaissance which seeks to determine—

(1) Zones of hostile advance which obstacles and the nature of the terrain render impracticable or difficult for tank movement.

(2) Areas which may be effectively interdicted by the passive means of antitank defense.

(3) Zones which must be covered by the fire of antitank weapons and mines and in which the advance of hostile tanks can be canalized.

Battalion antitank weapons are usually emplaced in firing positions in close proximity to the main line of resistance. Regimental weapons are preferably emplaced near a mask in rear of the main line of resistance or held in positions of readiness from which they can move to alternative firing positions covering the main line of resistance or to positions for support of counterattack in the areas of the leading battalions.

14. **Antiaircraft Defense.**—The combat echelon depends, in great measure, for its antiaircraft protection on the concealment and cover afforded by natural features or intrenchments, on the dispersion of its elements, and on the antiaircraft fires of the automatic weapons of supports and reserves.

Weapons are specifically assigned antiaircraft missions and occupy positions covering them against ground fires. Fire distribution is prearranged.

Conditions under which antiaircraft fires are opened are regulated by specific instructions. They are withheld in cases where the opening of fire would disclose defensive dispositions, particularly in the close vicinity of the main line of resistance. Troops whose positions are known to have been located by the enemy fire on all low-flying hostile planes when practicable.

Where weapons are assigned both ground and antiaircraft missions, the ground mission is primary. They do not allow themselves to be diverted from the ground mission by airplane attack.

15. **Organization of Ground.**—Organization of the ground facilitates communication and control, provides protection from hostile fire, and increases the effectiveness of the fire of the defender. Ground is so organized as not to disclose dispositions. Combat emplacements must be concealed or camouflaged. The development of the necessarily visible elements of a defensive system, especially the communication trenches, should not betray the real defensive organization. Communication trenches are provided only over exposed stretches and are not to be dug near combat emplacements. Dummy emplacements and false obstacles are among the most important elements of ground organization and should

be constructed simultaneously with the development of a position, in accordance with a comprehensive plan.

The effects of fire are greatly increased by artificial obstacles and accessory defenses placed so as to delay the advance of the enemy at points where the defender's fire is most effective. In general, the location of wire entanglements is coordinated with the fire of machine guns and antitank obstacles with the fire of antitank weapons. The obstacle, must not, however, disclose the location of the main line of resistance.

Multiplication of obstacles, including wire in front of the outpost, adoption of discontinuous and irregular trace, concealment or camouflage of wire near the main line of resistance (location in high vegetation or stream beds, etc., covering wire fence with vegetation, use of low wire or thin bands simulating wire fences) are among the means relied upon to prevent obstacles from disclosing dispositions.

Antitank mines are more readily concealed than wire; their location in front of the wire assists in preventing hostile tanks from opening gaps therein.

RECONNAISSANCE, ORDERS AND PLANS

16. **Reconnaissance of Commanders.**—Following the receipt of instructions from higher authority for the defense, the commanders of infantry units make a terrain reconnaissance, determine their plan of defense, and issue their orders. The general location of the defensive position fixed by higher commanders determines the area to be covered by their reconnaissance. The scope of reconnaissance varies with the size of the unit, and in the several echelons of command bears specifically on the mission assigned to the unit.

17. **Orders.**—Based on the results of his reconnaissance the commander determines—

(1) Data on enemy and location of friendly troops.

(2) Course of the main line of resistance.

(3) Strength and location of security detachments.

(4) Distribution and missions of rifle units and supporting weapons; defensive areas and sectors; boundaries; reserve locations.

(5) Intrenchments, obstacles, and other field works to be constructed.

(6) Location of observation and command posts.

Action may be initiated by fragmentary orders if combat appears imminent; complete orders are issued when time permits.

In addition to the designation of a main line of resistance, the mission of companies of the combat echelon is

usually given by the assignment of an area for defense. At times the locality in which the unit is to concentrate its main defensive effort may be specified.

18. **Plans.**—The essential elements of defense plans include a fire plan, plans for counterattack, and a plan of ground organization.

(1) Fire plan.—The fire plan combines into one coordinated system the action of all weapons at the commander's disposal. The basic feature of the fire plan is the provision for establishing a dense band of fire in front of the main line of resistance in which the fires of all supporting weapons of the unit are combined with those of the combat echelon and the artillery; and for bringing the enemy under destructive fires at the earliest practicable moment in his approach to the position.

(2) Counterattack plans.—The prompt action requisite for successful counterattack can generally be assured only by preliminary planning. Counterattack plans are arranged to meet various situations. Details are usually prepared by the reserve commander. Counterattack plans cover the units to be employed, direction and objective, departure positions, movement thereto from the initial position of the reserve, supporting fires, and method of coordination of the counterattack under various assumptions as to hostile penetration of the main line of resistance. Counterattacks are directed against objectives outside the defense area of a unit only on orders of the higher commander.

(3) Ground organization plan.—The plan of ground organization, in addition to covering the localities to be organized, provides for camouflage and dummy emplacements and indicates priority in the execution of the various works. Organization of the position is planned so that at any moment the troops are able to profit from the work already done.

When a short period of time is available for preparation for defensive combat, observation and local security are first assured. The essential elements of the fire system are then established. Weapons are sited and camouflaged, ranges are determined, and the necessary clearance of the field of fire carried out. The defensive works consist in the main of concealed emplacements for crew-served weapons, deep narrow pits (fox holes) (fig. 6) and crawl trenches for riflemen, observation and command posts and aid stations, and concealed or camouflaged obstacles. The construction of dummy emplacements and obstacles ordinarily progresses concurrently with the construction of active works.

A more strongly fortified defensive system may be developed if contact with the enemy continues. Communication trenches, overhead cover, and additional obstacles, including extensive wire entanglements, antitank mine fields, and antitank traps are developed progressively.

OCCUPATION OF POSITIONS

19. Entry into Defensive Combat.—Entry into defensive combat may proceed directly from the approach, from an assembly position, or from any phase of combat. When time permits, deployment of troops is preceded by thorough reconnaissance and the issuance of complete orders. If combat appears imminent, the troops are moved into position quickly, and necessary modification of dispositions is made when opportunity permits.

20. Dispositions on Battle Positions.—A rifle unit assigned to the defense of a section of the battle position is distributed in groups holding selected localities with a view to most effective defense of the area.

Heavy machine guns are distributed throughout the position. At least half of them are sited for close defense of the main line of resistance; they are usually located from 50 to 200 yards in rear thereof.

Light antitank weapons are sited for close-range defense of the main line of resistance. When available in sufficient numbers, they preferably cover mutually overlapping oblique fields of fire from emplacements masked from frontal observation. They may be assigned supplementary positions in the outpost zone.

Antitank guns are so located as to bring fire on their targets from the moment they come within effective range. They may be assigned positions in readiness near the regimental reserve or occupy firing and cover positions behind the first mask in rear of the main line of resistance.

The 81mm mortars are located close enough to the front to have good observation of their targets, and in any case not more than 800 yards in rear of the main line of resistance. They are preferably located in rear of the first mask behind the main line of resistance.

As a rule, weapon and ammunition carriers do not remain in the forward part of the position. Regimental reserves keep their tactical transportation as close at hand as the terrain permits.

21. Outpost Dispositions. — The occupation of the battle position is ordinarily covered by a completely organized outpost. Depending on the situation, the outpost may be withdrawn on orders of higher commanders. In the latter case, the security mission is carried out by combat outposts sent out by companies or battalions of the combat echelon.

The outpost is usually strong in machine guns and provided with antitank weapons. Platoon or company groups (supports) usually occupy those localities which mask hostile fields of view into the dispositions of the combat echelon and which in hostile possession would impair the defense of the

battle position. Groups will usually be widely separated. So far as practicable, they control the intervals by provision for the development of a powerful volume of flanking fire from automatic weapons.

The outpost sends forward outguards for observation and local security and patrols the foreground of the position.

22. **Construction of Defense.**—In general, the infantry is responsible for planning and constructing its own defenses including obstacles. Material and technical assistance is furnished by the engineers when necessary. As far as possible, working parties for special tasks are formed of complete tactical units. Camouflage is indispensable in all ground organization. It must be undertaken before the commencement of other work and must be kept in harmony with the nearby terrain.

23. **Night Dispositions.**—It is usually necessary to make certain adjustments to meet the conditions of reduced visibility. Machine guns and mortars are laid to deliver prearranged final protective fires. Preparations are made for illuminating the foreground and a special schedule of night signals is prearranged. It will frequently be necessary to hold the front lines in greater density by establishing additional combat elements in intervals which are not adequately covered by final protective fires. Rearrangement of security elements and increase in their density may be required. Where practicable, outguards take positions affording observation of the skyline or establish listening posts.

24. **Defense in Fog or Smoke.**—Fog or smoke creates conditions similar to those prevailing at night. However, their duration is uncertain, and the defense must determine in each case whether and to what extent night dispositions are to be adopted.

CONDUCT OF DEFENSE

25. **Outpost.**—Higher authority defines the general conduct of the outpost in case of hostile attack. Unless otherwise directed by higher commanders, outposts hold their position. The combat action of an outpost is subject to the general procedure governing the action of a defensive force deployed on a wide front.

So far as is consistent with the preservation of its fighting power, the outpost conducts itself in such a way as to deceive the enemy as to the nature of the resistance confronting him and the location and dispositions of the battle position. The volume of fire of its automatic weapons enables the outpost to simulate the effect of heavily held lines. By the use of advanced posts in connection with supporting points of the outpost line of resistance, the enemy may be deceived

as to the defensive dispositions and misled into a faulty deployment. It will also generally be of advantage to the defense if the outpost line does not closely parallel the main line of resistance.

The outpost carries out its information mission through observation posts, outguards, and reconnaissance detachments and patrols. Reconnaissance elements maintain contact with hostile forces and hold their movements under surveillance from commanding terrain in the foreground of the outpost. If the enemy has established close contact with the outpost line, it will frequently be necessary to resort to reconnaissance in force or raids to secure needed information as to his dispositions.

26. **Defensive Battle.**—If the assembly for attack of the hostile infantry is discovered, the fire of the mass of the artillery and attacks by combat aviation are directed on the known or suspected assembly areas. Where these areas are within the range of the infantry mortars, these weapons reinforce the fire of the artillery. If the enemy debouches from his assembly areas at long range, a portion of the machine guns open fire from emplacements removed from the close vicinity of the main line of resistance. Preferred targets for mortars are covered routes of approach, areas defiladed from artillery and machine guns, and hostile machine guns in masked positions. Machine guns assigned to long-range missions fire with preference on hostile, unarmored vehicles and on infantry groups and machine guns exposing themselves to view within effective range.

Machine guns covering the main line of resistance and rifle company weapons open fire when the enemy arrives within ranges which compel him to lift the fire of his artillery to rearward areas. If the enemy succeeds in effecting a close approach to the main line of resistance, all close-in prearranged fires are released. Forward machine guns cover arcs of fire limited by their final protective lines, rear machine guns fire overhead fires, and mortars and artillery lay down prearranged final protective fires or barrages, in accordance with the general defensive fire plan. These fires may be released on pyrotechnic signals sent up by front-line company commanders, on telephonic notice, or on orders of higher commanders. They can be delivered under any conditions of visibility. If made on call from the front line, they are delivered only in the sector where the call is made and not along the entire line. If the enemy assaults, he is met with rifle fire, grenades, and counterassault.

When tanks lead the hostile attack, the long-range antitank guns, usually sited in positions to the rear of the main line of resistance, open fire as soon as their targets arrive within effective range. The battalion antitank weapons, sited in or near the main line of resistance, withhold their

fire until the hostile tanks arrive within close range of the main line of resistance. Against heavily armored tanks, their fire is principally directed against the track assemblies. It is coordinated with other close-in defensive fires. Riflemen, automatic riflemen, and supporting weapons crews take cover against attack of tanks but open fire with armor-piercing ammunition against lightly armored vehicles. Certain rifle groups may be designated to attack track assemblies with prepared high explosives. Other riflemen and automatic riflemen in the main line of resistance remain concealed until the appearance at close range of the hostile infantry.

If the enemy succeeds in entering the position, the defender seeks to strengthen and hold the flanks of the gap and counterattack the penetrating elements from the flank rather than attempt to close the gap by throwing troops across the head of the salient.

DEFENSE IN POSITION WARFARE

27. **General.**—The general procedure of defensive combat applies to defense of a fortified position. Features of the defense which in open warfare can only be covered by general instructions are intensively organized in a position warfare.

28. **Characteristics.**—The chief characteristics of the defense of a fortified position are—

(1) Intensified development of defensive works, affording increased protection against fire and the weather and rendering the progress of an attacker more difficult.

(2) Large amount of artillery, ammunition and materiel which the time available permits the opposing forces to accumulate.

(3) Intensive organization of observation and signal communication. This, together with the large amount of ammunition available and increased accuracy of artillery and infantry heavy weapons, made possible by careful adjustment of fire, permits the defender to place his fires to best advantage and maneuver them more readily than in open situations. Fires are adjusted closer to the organizations they cover, and the fire plan is perfected and verified so that no gap can exist. Artillery fires are combined more closely with those of the infantry.

(4) Intensive organization of the service of information.

(5) Detailed organization of all defensive action.

29. **Effectives.**—As defensive organization is perfected, the number of effectives on a position may be reduced or the frontages of units increased without impairing the effectiveness of the defense. Minimum forces may be left in sectors where an attack is not threatened, provided information agencies continue their activity and detailed arrangements are made in every echelon of command for reinforcement.

30. **Distribution of Troops.**—Higher authority determines the position on which the principal resistance is to be offered in case of a hostile attack in force. Every effort is made to conceal its location from the enemy. It is not strongly held until shortly before the start of the battle.

It is usually desirable in position warfare to hold the outpost position against local attacks. In such case, the outpost will often be composed of complete battalions reinforced by antitank units and supported by artillery, which organize close-in defensive fires generally similar to those of a battalion defending the main line of resistance of a battle position. An outpost battalion may be assigned a frontage of from 2,000 to 2,500 yards under these conditions.

31. **Location of Defenses.**—The defense is based upon the foreknowledge that all deep, conspicuous trenches will be located by the enemy and subjected to the hostile preparatory bombardment. Conspicuous fire trenches on the main line of resistance are avoided.

Deep trenches are provided to serve as avenues of communication, for protection in quiet periods, and shelter against weather. They are none the less important. Without them the fighting capacity of the troops falls off rapidly and the service of supply becomes difficult.

32. **Dugouts and Shelters.**—Dugouts and concrete shelters are the only forms of protection against fire which are of lasting value. They constitute an essential means of conserving the fighting capacity of the troops. Efforts should be made to accommodate all reserves in shellproof shelters. Dugouts or groups of dugouts should enable troops to be sheltered by complete units to facilitate command and supply. Deep dugouts in the front part of a position do not permit the prompt egress of troops and in case of an attack may become mere man traps. Concrete shelters should be constructed in the advanced portion of a position whenever possible. They form the skeleton of the main line of resistance of provisional rearward positions.

33. **Readiness for Action.**—Special forms of increased readiness for action are provided in case indications of a hostile attack are observed. The following measures are taken:

(1) Outpost and combat troops occupy their combat emplacements and reserves are disposed in readiness to move.

(2) Men temporarily detached or engaged in special tasks report to their units.

(3) Work which requires working parties to leave the vicinity of their combat posts ceases.

(4) Communications are tested.

(5) Patrolling becomes more active; frequent raids will be prescribed; observation is redoubled.

34. **Maintenance of Contact.**—Constant vigilance must be exercised to maintain contact, since the enemy may effect a rapid withdrawal, leaving only a screen in place. In addition to vigilant patrolling, small raids to obtain information as to the continued presence of the enemy are made whenever information from any source indicates a withdrawal.

WITHDRAWAL FROM ACTION

35. **General.**—A withdrawal may be effected to extricate the defense from engagement with hostile forces or with a view to transferring the main defensive effort to a rearward position. In either case a covering force is detailed to protect the withdrawal. In the first case the covering force may be eventually relieved by a rear guard; in the second case by an outpost.

The covering force is placed in position in rear of elements in contact with the enemy or on the flank of the line of withdrawal. Elements in contact with the enemy withdraw straight to the rear under the protection of the covering force and of small detachments which they leave in position. These detachments withdraw in turn past the covering force after their units have broken contact. The covering force delays the enemy and permits the uninterrupted retrograde movement of the main body until relieved by another security detachment.

A withdrawal by daylight involves such heavy losses and so great a degree of disorganization that as a rule it is preferable to hold out at any cost until night and effect the withdrawal under cover of darkness.

Any order for withdrawal from an uncertain source must be disregarded. Orders for withdrawal are especially suspicious when passed along a line of skirmishers.

The steps involved in withdrawal are, in general—

(1) Selection of an assembly position where the several units will assemble when withdrawn, or of a defensive line on which resistance will be renewed.

(2) Selection of a covering position to be occupied by reserves.

(3) Designation of a covering force and its movement to the covering position.

(4) Withdrawal of transportation and evacuation of such stores as can be removed and destruction of unremovable stores.

(5) Withdrawal of reserves to local covering positions.

(6) Withdrawal of the combat echelon.

A general covering force protects the withdrawal; in addition subordinate commanders employ reserves as local covering forces to assist in extricating their units in daylight withdrawals. Observation and a clear field of fire to front and flanks at the longer ranges and covered terrain in rear, favorable to withdrawal, are desirable characteristics of covering positions. Local covering forces are formed from available reserves with suitable attachments of machine gun, mortar, and gun units.

36. **Night Withdrawal.**—Reconnaissance.—Subordinate infantry units initiate daylight reconnaissance of routes of withdrawal and assembly positions as soon as informed of a contemplated withdrawal. Reconnaissance groups are limited in size. They include men who are later used as guides.

Assembly areas should be easy to recognize, accessible by clearly defined routes, and far enough to the rear for reorganization to take place without hostile interference.

Screening of withdrawal.—The movement is screened by small groups left in immediate contact with the enemy supported by slightly larger groups. The screening force on the front of a battalion does not exceed the equivalent of a rifle company, reinforced by machine guns, mortars, and antitank weapons. The elements in immediate contact with the enemy will rarely exceed the equivalent of two rifle platoons on the front of a battalion.

A commander for the screening elements in each battalion sector is usually designated by name and provided with personnel and equipment for command, communication, and control. He assumes command at a specified time.

If an outpost is in position, it constitutes the screen; otherwise the withdrawal is screened by elements taken from the combat echelon. The foremost groups cover the principal routes of approach to the position. Groups in rear are located along the more dangerous avenues of advance within the position. Readjustment of front-line elements must not be extensive and should be along simple lines. Each platoon may leave a squad in place. Machine guns with the screening elements are usually single guns left in positions occupied during daylight.

The troops left in contact with the enemy simulate the normal activity of fully occupied positions. They send up rockets and flares, execute fires from different localities, and patrol actively in an effort to give the impression of a heavily held position.

Execution of withdrawal.—Administrative and supply elements and reserves usually withdraw soon after dark.

Combat echelon elements, other than those left to screen the movement, withdraw at a designated hour. Small

elements move to designated platoon assembly positions; platoons to company areas; and companies then move to battalion assembly areas.

Infantry heavy weapons must be moved by hand during early stages of the withdrawal. It is usually impracticable to attempt any extensive forward movement of the tactical transportation. Depending on their location, the weapons carriers rejoin units at designated points, often in battalion assembly areas. The weapons carriers of gun units rejoin weapons as far forward as practicable. Some motor transportation may be left with the screening forces to expedite their withdrawal.

All movement is without lights. Unusual noises are avoided.

The screening force remains in position until a designated hour. It should be withdrawn in time to come under the protection of the covering force before daylight.

37. **Daylight Withdrawal.**—Orders and reconnaissance.—Little warning will be given, and reconnaissance will usually be coincident with the withdrawal. Withdrawal orders of infantry commanders are usually brief, fragmentary, and oral. They prescribe the general position to which withdrawal is to be made, zones of action, initial assembly areas, the time of starting the withdrawal, the sequence of withdrawal, and the method of covering the withdrawal.

Execution of withdrawal.—Sequence in withdrawal is regulated by the general guide that the most rearward elements and those least closely engaged are the first to be withdrawn. Administrative and supply establishments and trains move first. The general covering force occupies the position designated by higher authority.

Infantry reserves take rearward positions with the longest available field of fire or most effectively covered by an antitank obstacle, intermediate between the general covering position and the combat echelon, to protect the withdrawal of the troops engaged. Whenever practicable, they take position to the flank of withdrawing troops so as to have a clear field of fire against pursuing forces.

The combat echelon withdraws so as to unmask the fire of covering troops as far as practicable. Units assemble and reorganize under the protection of the first cover position and form on the next succeeding cover position as an echelon of the withdrawing force.

The further movement in withdrawal to the assembly position takes place by successive echelons in accordance with the procedure of delaying action.

The use of smoke and the execution of demolitions are generally regulated by higher authority but may be entrusted to infantry units to which the necessary technical personnel is attached. Smoke screens must cover extensive fronts.

They may sometimes be established by firing hay, grain shocks, etc. Bridges are not destroyed except on order of higher authority, unless it is apparent that they are about to be captured.

Antitank units not engaged take positions covering stream crossings, defiles, and other points of obligatory passage for armored vehicles, and important points on routes of communication.

DELAYING ACTION

38. **General.**—The methods employed depend on the situation and vary from the activity of small detachments making use of road blocks and demolitions to the defense of a position for a limited period. The enemy is forced to deploy at great distances and to prepare attacks on successive positions held by alternating echelons of the defensive forces. The defending forces execute successive withdrawals and seek to avoid becoming closely engaged. The dangers inherent in a daylight withdrawal, however, especially when the hostile forces include strong mechanized elements, frequently induce the delaying force to remain in position, in whole or in part, until nightfall, even accepting a close engagement.

39. **Selection of Position.**—Delaying positions should offer favorable observation to the front and flanks, long-range fields of fire, covered routes of withdrawal, and secure flanks. These requirements are usually best met by crest positions which afford distant observation and long-range fields of fire and mask the terrain in rear of the position. An effective obstacle may be of more importance than commanding terrain where a considerable delay must be effected on any single line or when tanks closely press the pursuit. Successive positions should be separated by sufficient distance to prevent hostile artillery from simultaneously taking two positions under fire from the same emplacements. Infantry units may however, have to occupy intermediate positions for mutual support in an echeloned withdrawal, especially in cases where the enemy closely presses his pursuit. In such case, it is often advantageous for each position to be within supporting range of the heavy weapons occupying the next.

40. **Distribution of Troops.**—Infantry units cover wide frontages; under favorable conditions they may be approximately double those permissible for a sustained defense. The increased frontages are held by employing a larger proportion of the troops in the forward part of the position, reducing the strength of reserves, increasing the intervals between occupied localities.

Weapons carriers are held in defiladed areas, as close as practicable to their weapons, prepared to move to the rear over reconnoitered routes.

41. **Fire Plan.**—Infantry units prepare two general series of fires; long-range and close-in defensive fires. The former constitute the principal mission unless close protection missions are contemplated. The long-range fires are executed by the mortars and heavy machine guns. They are assigned positions facilitating withdrawal by carrier. Each machine-gun section is usually assigned a wide sector for observed fire. The greater tactical mobility of light machine guns favors their use in close combat situations. The action of antitank guns is similar to their action in defense. Automatic riflemen and riflemen are used primarily for the protection of other weapons and the execution of reconnaissances. In close country, riflemen form the principal elements of delaying action.

42. **Withdrawal.**—General.—Withdrawals are preferably made by night. Anticipation of the movement enables it to be carried out under relatively favorable conditions. Withdrawals are initiated under conditions fixed by higher commanders. They may commence at a designated hour, when hostile forces reach a certain terrain line, or when adjacent units have effected a withdrawal.

Reconnaissance.—Close touch with pursuing forces is maintained by aggressive patrolling. Defiladed routes must be held under constant surveillance.

DEFENSE IN WOODS

43. **Characteristics.**—Combat in wooded areas results in decreased effectiveness of all fire and of mechanized forces; increases the importance of close combat and surprise; impedes the maintenance of direction, control, and communication; promotes concealment and effectiveness of ambushes; and increases chemical effect. Special training in this type of combat is necessary.

Isolated small woods usually attract artillery fire; however, they provide some protection against tanks. Decision to occupy them depends on the probable hostile artillery effect or likelihood of attack by hostile mechanized elements.

Large wooded areas favor the construction of strong, well-concealed defense areas, surrounded by artificial obstacles. Such wooded areas impede offensive operations and enable weak forces to make a stubborn resistance.

Large woods in rear of a position are of value for concealing reserves and communication and in covering withdrawals.

44. **Location of Main Line of Resistance.**—A wooded area may be defended by locating the main line of resistance in front of the woods, along the forward edge, within the woods, or in rear thereof. Tactical or terrain considerations are the determining factors.

Usually the main line of resistance will be within the woods, with the forward edge of the woods held by security detachments. If the main line of resistance within the woods is oblique to the outpost position located outside the woods, it affords flanking fires and deceives the enemy.

45. Fire Plan.—The defense of the main line of resistance within a wood is organized to surprise the attack with a dense system of close-in defensive fires. Roads, paths, and trails are enfiladed by rifle and machine-gun fires. Cleared spaces and the forward edges of concealed obstacles are swept with flanking fires.

Lanes are cut for machine-gun fires along the front and flanks of organized areas. Thinning trees and undergrowth is better than a complete clearing. The lack of observation for the control of fires frequently limits effectiveness of artillery and of infantry mortars. Where there are no naturally cleared areas available as battery positions, they are prepared. The flat-trajectory of the field artillery guns requires more clearing than do the high-trajectory infantry mortars. Because of their greater range and defensive echelonment in depth, the gun batteries are usually able to find suitable natural cleared firing positions further in rear of the battle position. Artillery usually covers the intersections of roads and trails, defiles through which the hostile attacking infantry will have to pass, and likely hostile assembly areas. The high-angle fire of infantry mortars permits the 81mm platoon to be sited in limited cleared areas, and its plunging fire is affected but little by the trees as the projectiles strike. The 60mm mortars are usually attached to rifle platoons, where their fire can be directed by the platoon leader against enemy attacking dispositions as they are disclosed during the attack.

Concealment of a few riflemen in trees often adds to the effectiveness of the defense.

46. Organization of Defense.—The lateral edges are strongly defended in order to prevent outflanking action.

A small holding garrison may be located in rear of a shallow wood to enfilade enveloping attacks, to support counterattacks, and prevent the enemy from debouching in case he penetrates the wood.

Obstacles are erected to protect the main line of resistance, prevent the use of paths and trails, canalize the hostile advance into areas swept by the fire of concealed automatic weapons, and cause the attack to lose direction and impetus. Routes are reconnoitered and marked.

47. Distribution of Troops.—Limited fields of view and fire require reduction of distances and intervals between groups and individuals with consequent initial diminution of the depth and frontages of units. The strength of effectives required

to hold a wood may be reduced after it has been properly organized.

Areas held by front-line platoons are elongated and usually approach a linear formation. Local reserves, prepared for immediate counterattack, are disposed in smaller and more numerous groups than in open terrain.

So far as practicable, the defense avoids the occupation of points easily identified on maps or which can be accurately located by hostile ground or air observation.

When the defensive position is within the wood or in rear thereof, the forward edge is usually occupied by small detachments to observe and delay the enemy and screen the main line of resistance.

48. **Chemicals.**—Chemicals are highly effective in woods. Areas which have been subjected to concentrations of highly persistent gas should be evacuated.

NIGHT OPERATIONS

49. **General.**—Defensive means are combined to take the attacking forces by surprise. Ambushes are prepared by constructing concealed obstacles along the most probable routes of hostile advance and siting fixed weapons to sweep them with fire. Outguards provide for the security of the command, preparing ambushes in advanced positions to break the attack before it reaches the defensive position or to enable capture of hostile patrols. Local reserves are posted to recapture portions of the position which may be taken. Larger reserves must be able to form rapidly at designated assembly positions and proceed therefrom along previously reconnoitered routes to any part of the front where they may have to intervene. Large-scale counterattacks are usually postponed until daylight.

DEFENSE OF RIVER LINES

50. **Military Importance.**—River lines are important military obstacles. Their protection against mechanized vehicles frequently determines the location of defensive or delaying positions. The military importance of a river line depends upon the width, depth of water, current, stream bed, banks, and facilities available for crossing.

51. **Defense of Stream Lines.**—The action of infantry occupying a defensive position a few thousand yards in rear of a stream or held in readiness with outposts on the river line is in accordance with general procedure of defensive combat.

Infantry units defending near the river bank locate their principal holding garrisons opposite favorable crossing places and at points affording good observation over the

valley. They are supported by local reserves held close in their rear prepared for immediate counterattack.

Defensive fires are prepared covering routes of approach and favorable assembly places on the far bank, the stream itself, likely routes of hostile advance on the near bank, and those points on the near bank offering the best observation over the stream. The principal close-in defensive fires will usually be placed on the river when the latter is an important obstacle.

The more likely crossing places are covered by several weapons. In addition to normal defensive organization, the defense may dam the stream at selected points, destroy or mine fords and approaches thereto, and obstruct good landing places. Wire is erected on the banks of the river and obstacles placed in the water. Mines may be placed at landing points. The valley may be interdicted with gas if it is deep and narrow.

Where the stream is an effective barrier to tanks, the best antitank defense is to prevent a crossing of the hostile infantry and to locate antitank weapons for fire upon hostile tanks which may attempt to cross or ferry. Antitank guns should seek long fields of fire up and down stream as well as on approaches thereto, and particularly should cover salients in the river line. Most of the antitank weapons are initially held in readiness under cover until the approach of the tanks. When hostile tanks are able to ford the stream or are amphibious, weapons are emplaced to take them under fire during the crossing.

Fundamentals of antiaircraft defense applicable to ordinary defensive situations generally apply. The defending forces at a river line are, however, disposed over a broader front and in greater depth. The greater part of the defending ground forces are held concentrated in mobile reserve. The important consideration in antiaircraft defense is the protection of the reserve while concentrated and during movement to the area of employment.

DEFENSE OF VILLAGES

52. **Location of Main Line of Resistance.**—Houses on the edge of a building area will receive the most artillery fire initially. Hence the line of resistance usually is located in front of the village when houses offer relatively slight protection against artillery fire and do not materially obstruct the advance of tanks. If houses are of extremely solid construction, defense along the forward edge may be advisable in early stages of campaign, when systematic destructive fires by masses of heavy artillery are not to be expected. Location of the main line of resistance in the interior of the village limits fire action of the defender except at close range and allows

the enemy to gain a foothold within the village; it is, however, frequently advisable when the hostile artillery has excellent observation on the edge of the village or if the fires of strong hostile artillery are to be expected.

53. **Organization for Defense.**—Each combat unit is assigned to the defense of groups of adjacent houses. Main streets are unsuitable boundaries, and units should be definitely charged with their defense; each subordinate unit should cover an entrance to the village or a favorable route of hostile advance; each combat unit should hold out a reserve for immediate counterattack.

In the interior of the village solidly built houses are organized to command the streets leading toward the center of the village. Trenches and barricades may be located at street intersections and open squares to exploit the field of fire.

Reentrants of edges of the village offer particularly favorable emplacements for machine guns giving reciprocal support to adjacent elements. Other machine guns are sited in rear (from defense viewpoint) of the village to fire along the lateral edges and prevent their envelopment. A redoubt is located at the rear exit to insure all-round defense.

Facilities for several tiers of fire are fully utilized, particularly in the interior defenses. Loopholes are cut in the walls of the houses, and firing emplacements are protected by sandbags inside the houses. If time permits, cellars are strengthened so as to resist artillery bombardments and additional exits from them are cut. Measures are taken for protection against gas. Protected communications are established to facilitate the exercise of command, walls of adjacent houses being pierced to make passageways when necessary. Wire is erected in front of the village and in open portions of the interior. Entrances of the village are barricaded and antitank mines are placed. A generous supply of tools, sandbags, and munitions, including grenades, is provided.

ARTILLERY IN SUPPORT OF THE DEFENSE

54. **Purpose.**—In general, artillery fire in the defense is designed to delay the attacker and inflict casualties upon him as he approaches the defensive position; to prevent or dislocate a coordinated attack; to assist the infantry in repelling any attack which the enemy succeeds in launching; and to place fires on his reserves and supporting troops.

55. **Arrangements for Support.**—The method of arranging artillery support of infantry in the defense is similar to that in offensive situations; the infantry and artillery commanders confer and agree upon areas to be covered, the duration and priority of fires, and the signals calling for them. To take

advantage of its flexibility of fire, the artillery is kept under centralized control to a greater degree than in the attack.

56. **Sequence of Arranging Fires.**—Defensive fires are usually prepared in the following sequence:

(1) Standing barrages for the close defense of the main line of resistance.

(2) Defensive concentrations covering avenues of approach to the main line of resistance.

(3) Other defensive fires beyond the main line of resistance.

(4) Counterpreparation fires.

(5) Fires within the battle position to limit hostile penetration or envelopment.

(6) Fires in support of counterattacks.

(7) Fires covering a possible withdrawal.

57. **Coordination.**—Artillery fire can adequately cover only a small portion of the front of a supported unit at one time, unless the organic artillery has been strongly reinforced. In principle, the artillery prepares close-in defensive fires to cover portions of the terrain where infantry flat-trajectory fire is least effective. Plans for defensive fires also provide for concentrations of artillery fire on critical portions of the front. The normal barrage for the close defense of the main line of resistance requires one battery for each 200 yards covered; the duration of fire is from 3 to 5 minutes, renewed in case of necessity. The artillery executes observed fire against any suitable targets seen.

58. **General.**—Close contact between the infantry and the artillery makes possible timely transmission of requests for fire and gives the artillery the intimate knowledge of the infantry situation which it requires for effective performance of its mission. Maintenance of communication (except radio) with the supported unit is an artillery responsibility.

59. **Command Liaison.**—The artillery commander maintains liaison with the commander of the supported infantry unit by personal contact whenever practicable, otherwise through a staff representative. Infantry and artillery command posts are located in close proximity to one another. When this is impracticable, wire connection is made. Frequent visits by artillery commanders and staff officers to infantry command posts, before and during combat, are essential.

60. **Liaison with Infantry Battalions.**—Liaison section.—An artillery liaison officer with a small detachment is sent to front-line infantry battalions (exceptionally to companies) as soon as the essential elements of the artillery plan are known. The liaison officer is the artillery adviser of the infantry battalion commander and the representative of the artillery com-

mander; he may also be a forward observer for the adjustment of artillery fire.

Information furnished infantry commander.—The liaison officer furnishes the infantry commander information concerning where, when, and in what volume the artillery can fire. He identifies prearranged fires on the ground. During the action he furnishes information concerning the possibility of obtaining additional fire.

Information furnished artillery commander.—The liaison officer keeps the artillery commander informed of the location of the forward elements of the unit supported, its tactical situation, the desires of the supported troops for artillery fire, the effect of friendly and hostile artillery fire, prospective battery positions, observation posts, and routes of advance.

Location of liaison officer.—The liaison officer maintains close contact with the infantry commander; both should be able to observe the action of the infantry. Wire from the artillery battalion is laid to the artillery liaison officer, who during combat is with the infantry battalion commander. Artillery communications should not be used for infantry traffic except in an emergency. The infantry battalion commander may communicate with his regimental commander through the artillery battalion switchboard, which has a wire line, in most situations, direct to the infantry regimental command post.

61. Requests for Artillery Fire.—The following table indicates how requests are made for artillery fire When an entire artillery battalion or more than one battalion is assigned to the support of a single infantry battalion, the commander of the infantry battalion may be authorized to prearrange fires; request that schedule fires be advanced or delayed; and initiate the execution of a new series of prearranged fires.

Nature of request	By whom made	To whom made
Prearrangement of fires	Infantry regimental commander generally.	Commander of artillery in direct support.
Call for execution of prearranged fires.	Infantry battalion commander unless otherwise ordered.	Artillery liaison officer.
Signal for execution of prearranged fires.	Infantry battalion commander usually. Company commander in defense if specifically authorized.	
To delay or advance the time of delivery of schedule fires.	Infantry regimental commander; usually on request of a battalion commander.	Commander of artillery in direct support.
Request for fire on areas not covered by prearranged fires.	Infantry company commander; infantry battalion commander.	Infantry battalion commander; artillery liaison officer.
To initiate the execution of a new series of prearranged fires.	Infantry regimental commander.	Commander of artillery in direct support.

Request by a battalion commander for fire on points outside the battalion zone of action are usually sent to the infantry regimental commander, who transmits them to the artillery only if the fire will not interfere with other units.

62. Artillery Action on Requests.—In all infantry requests for fire during combat, the artillery commander notifies the infantry commander as soon as possible concerning the action to be taken.

When the artillery is firing on a time schedule and all batteries are busy, compliance with a request by an infantry battalion commander for fire on a target of opportunity is usually effected by transferring fire from a target in the zone of the battalion making the request. The artillery commander will not transfer fire from without the zone of the battalion supported unless the infantry regimental commander approves, or previously has indicated that the unit making the request is to be given priority in artillery support (main effort). In requesting fire, therefore, infantry battalion commanders should specify the old targets on which continuation of fire is essential.

The commander of the direct support artillery may apply for assistance by general support artillery or other artillery units when his own resources are insufficient to comply with requests. Appreciable delay is usually involved when attempts are made to procure support from such sources.

63. Attached Artillery.—When artillery units are attached to infantry units, the same general procedure is followed

except that the infantry commander makes the final decision as to where the artillery fires will be placed, after considering the recommendations of the artillery commander.

64. **Use of Signals.**—To prevent misunderstandings the number of pyrotechnic signals pertaining to fire and their meanings should be held to the minimum. It will usually be necessary to reach an agreement with the artillery as to the locations from which signals are to be fired.

65. **Small and Close Targets.**—In general, the artillery is not called upon to deal with small point targets that can be dealt with by infantry weapons. When strong resistance develops over a large area near the Infantry the point targets close to the Infantry are engaged by infantry supporting weapons, and the rest of the area is assigned to the artillery.

66. **Designation of Targets.—Importance.**—Precise designation of targets on which the Infantry desires artillery fire is of vital importance; inaccurate designation results in ineffective fire or requires the artillery to neglect other missions and neutralize an unnecessarily large area by a great expenditure of ammunition.

Prearranged fires.—Designation of targets for prearranged fires is relatively simple because the infantry commander and artillery representative are in direct contact. Suitable maps, overlays, or sketches are ordinarily used with identification of visible targets (or reference points by which they can be located) on the ground. Without maps, all targets must be pointed out in this manner.

By small units during combat.—After the commander of a company or other small unit has located hostile resistance on which he requires fire, wording and transmission of the information to higher authority in such form as to avoid error require great care. Use of marked maps or photographs, overlays, or rough sketches is desirable. Whenever possible, the messenger should be able to identify the target (or reference point) on the ground.

Map coordinates (or an overlay) are used when practicable. The size of the target should be indicated, e.g., by giving the central point and the extent of the front or diameter of the area. The designation should be supplemented by indicating the relation of the target to an unmistakable point on the terrain near the target (reference point).

Lacking maps, the company commander may indicate the target by giving its magnetic azimuth and estimated distance from his position, when his position can be readily seen or accurately identified. (Example: Deployed Infantry on front of 200 yards; center 500 yards from red brick house, azimuth 54°.) He may give the distance and direction of the target from an easily recognizable reference point when the distance is small enough to permit a reasonably accurate estimate.

(Example: Machine-gun nest 100 yards in diameter; center 150 yards north of water tank.) A method frequently applicable is to give (usually on a sketch) the magnetic azimuth and estimated distance both to the target and to a distinct reference point. Accurate results depend on accuracy of estimated distances.

Action of battalion commander.—Errors in target designation by infantry units under fire are inevitable; in transmitting such requests, infantry battalion commanders and liaison officers use all possible means (observers, personal observation) to verify and complete the target designation. Indication of known points close to the target or reference to prearranged fires materially aids the artillery.

Action of liaison officer.—The liaison officer uses the information furnished by the Infantry, supplemented by his own observation, to determine the location of the target with reference to a known point already plotted on the artillery firing chart. Since he is usually in a forward position, he will frequently be called upon to observe fire.

67. Infantry Protecting Artillery. — Close-range protection of artillery is afforded mainly by troops deployed in its front. Special infantry supports may be detailed to protect artillery on an exposed flank or behind a lightly held front. These supports receive general instructions from the Artillery but are responsible for the dispositions necessary to accomplish the assigned mission.

SECTION 2

THE RIFLE SQUAD IN DEFENSE

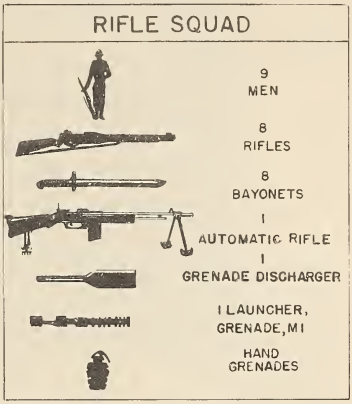
68. The Rifle Squad, Composition and Armament.—The squad is a group of men organized primarily as a combat team. It consists of the following:

1 Corporal (Squad Leader)
8 Privates, including privates first class.

The senior private first class is the assistant squad leader. When the squad leader is absent, he is replaced by the second in command. If the second in command is also absent, the next senior member of the squad acts as leader.

The rifle squad in the Marine Corps is normally armed with:

8 Rifles
8 Bayonets
1 Automatic Rifle
1 Grenade Discharger*
1 Grenade Launcher, M1



In addition to the above, when the tactical situation demands, men of the squad may be armed with hand grenades and may be required to carry extra grenades.

The Squad may be increased to 13 men, in which case the Corporal becomes the Assistant Squad Leader and a Sergeant becomes Squad Leader. When this is done the armament is as follows:

11 Rifles.
11 Bayonets.
1 Automatic Rifle.
1 Thompson Submachine Gun.
1 Grenade Discharger*.
1 Grenade Launcher.

*To be issued until supply of serviceable rifle grenades is exhausted.

69. Instructions to the Squad Leaders.—The squad will assume the defensive when the attack is stopped or upon orders of higher authority. The squad in the combat echelon is usually reinforced by an automatic-rifle team from the Platoon's BAR Squad. (See Sec. 3.) When assuming the defensive, the platoon leader will assign missions to each squad including the sector of fire. The instructions to the squad leaders cover the following:

(1) Information relative to the enemy, and position and mission of adjacent squads and supporting weapons.

(2) Decision of the platoon leader as to how he will use his platoon to carry out his mission, and the exact course of the main line of resistance in the platoon area.

(3) Defense area and sector of fire for each squad.

Ranges to prominent features in the foreground.

Arrangements for mutual support between adjacent squads.

Clearing fields of fire.

Intrenchments and obstacles.

Camouflage.

Conditions under which fire will be opened.

(4) Ammunition supply.

(5) Prearranged signals.

70. Organization of the Squad Position.—When the attacking squad is unable to advance, the members immediately take a position where they can fire on the enemy or cover the ground to the front. If natural cover, such as ditches, gullies, or shell holes is not available, then they should dig individual pits, either skirmishers trenches or foxholes. The foxholes are rough holes deep enough to afford protection from rifle fire and shell fragments. In digging these foxholes, the entrenching tools should be used. However, if these are not available, then anything should be used to get the desired cover quickly, such as canteen cups, knives, meat cans and meat can covers. For various type foxholes see Figs. 5 to 13 inclusive.

FIGURE 5

Circular foxhole, shown without cover to illustrate construction

FIGURE 6

Foxhole, with rifleman shown without camouflage to illustrate position

FIGURE 7

Camouflaged foxhole (Head protruded to show location of hole)

FIGURE 8
Rectangular type foxhole
(Shown without camouflage to illustrate construction)

FIGURE 9
Rifleman seated on fire step of rectangular foxhole
(Shown without camouflage to illustrate construction)

FIGURE 10
Two-man foxhole on forward slope of hill

FIGURE 11

Two-man foxhole reinforced by live timber to support weight of hostile tank (Shown without camouflage to illustrate construction)

FIGURE 12

Men at rest in two-man foxhole. Reinforcing of live timber will support weight of attacking tank
(Shown without camouflage to illustrate construction)

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FIGURE 13

Chevron type of slit-trench, ideal for squad leader

While the members of the squad are in the foxholes, work should be started in the organization of the ground. This work will consist of improving the fields of fire, digging a shallow connecting trench between foxholes and camouflaging foxholes. Use should be made of natural cover and concealment.

The skirmisher's trench is a shallow trench about 6 feet long, 2½ feet wide, and six inches deep, with the excavated soil thrown up as a parapet on that end of the longer axis which is towards the enemy. (Fig. 14.) The skirmisher's

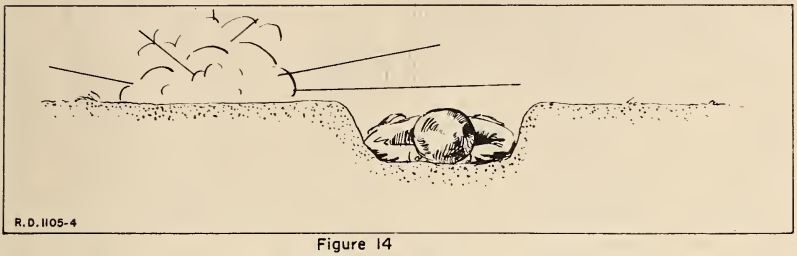
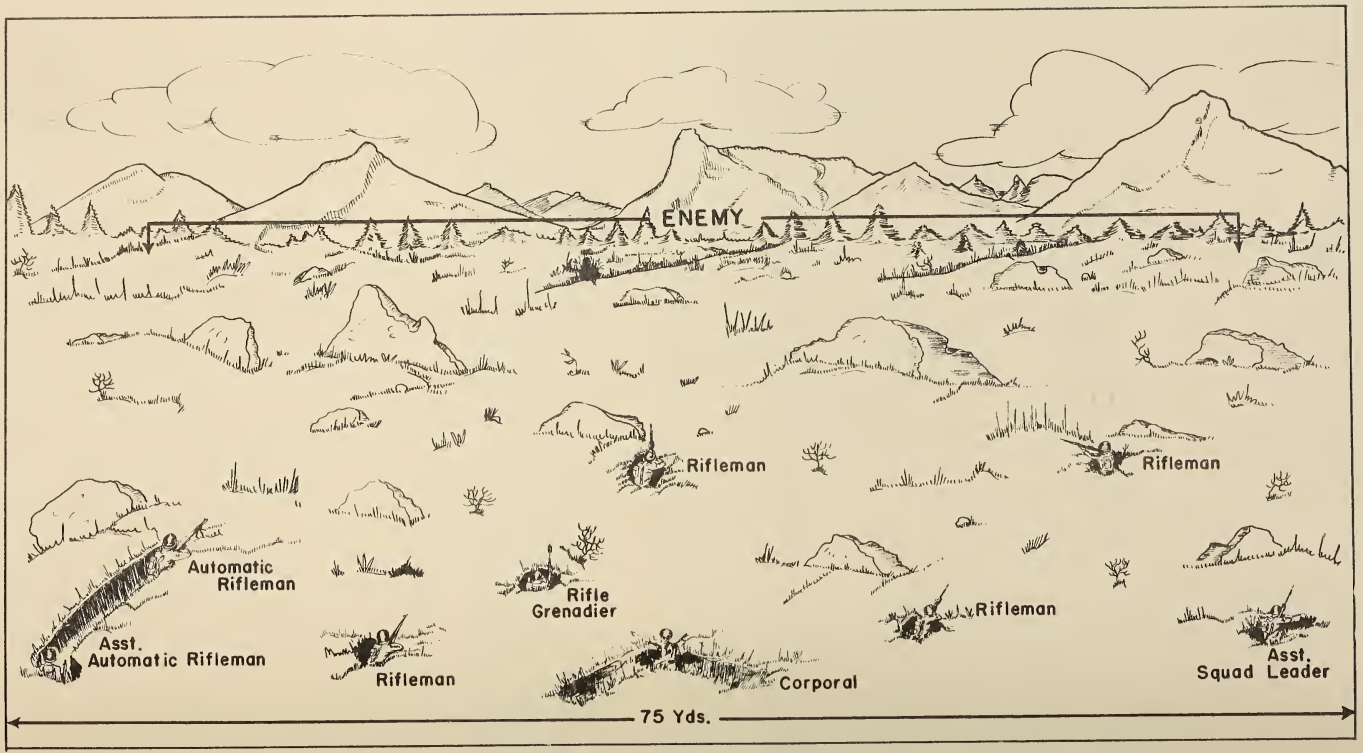


Figure 14
SKIRMISHER'S TRENCH

trench is usually dug when the ground is exceptionally hard, or when the digging unit is under aimed small arms fire. The foxhole gives the best all around protection to the individual rifleman, but the skirmisher's trench will be found a very usable adjunct. Skirmisher's trenches may be changed to foxholes by deepening the forward end and building up the front and rear with the spoil. Grass and leaves should be used in the proper place so that the outline of the trench will remain, in texture and color, the same as the surrounding vegetation.



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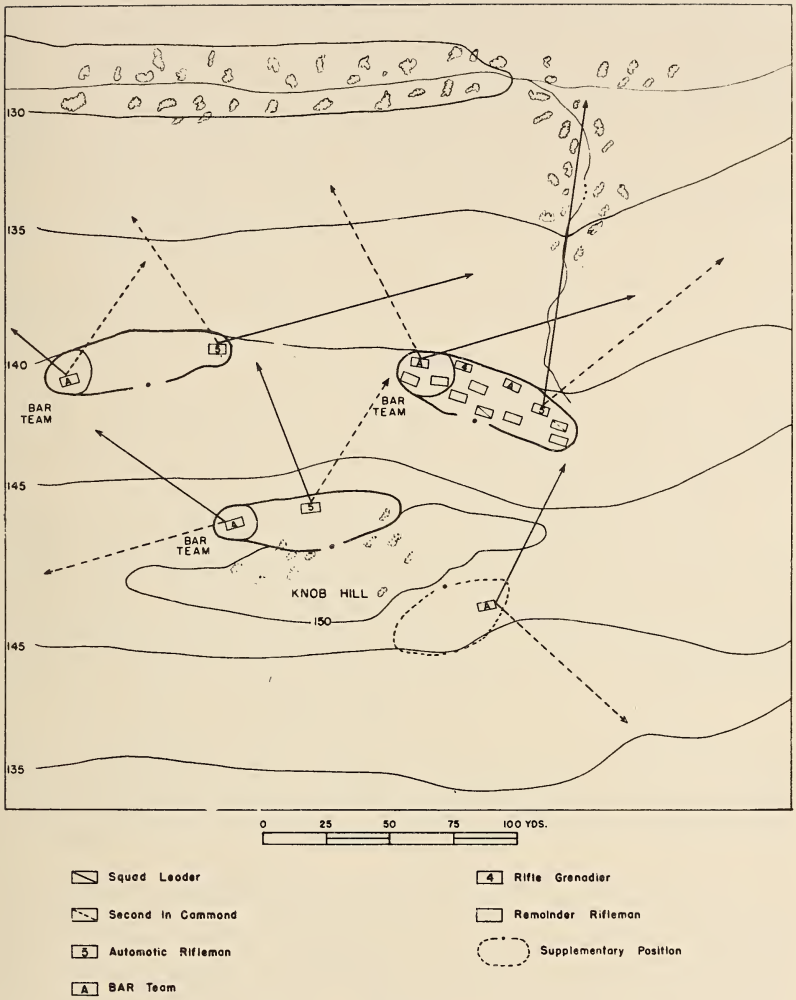
The Rifle Squad in Defense

Figure 15



Squad in Defense
Reenforced by BAR Team
Fig. 16.

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The squad should deploy roughly in the shape of a convex arc, though a regularity of pattern is to be avoided. Each weapon's field of fire should extend to the front up to the limit of its effective range, insofar as the terrain will permit, and over a sufficiently wide arc that the men serving the adjacent weapons on either flank can be protected. If it is on an extreme flank of the squad the weapon's field of fire should include the flank and part of the adjacent squad.

The squad leader supervises his squad's position and, upon receiving the platoon leader's plan for a coordinated defense, may be compelled to change his original position, so as to have it included in the platoon defense plan. In his assignment of sectors of fire to each member of the squad, he seeks places that afford the best fields of fire, cover and concealment, in the priority given, consistent with the control. The squad's sector is divided into sub-sectors and each member of the squad who is to fire is assigned a firing position and sub-sector. The adjacent individual subsectors should overlap to the extent that all the ground within the squad sector will be properly covered. The riflemen should not only cover his own subsector, but should be on the alert to cover adjacent subsectors and other targets of opportunity.

The position of the automatic rifleman should be selected carefully so as to cover the maximum area possible. Positions are made more effective when located on the flanks, sited at an angle to the front so as to give oblique fire. Portions of the front not covered by machine-gun fire can be covered by automatic fire. Dead spaces in the fire of automatic riflemen and riflemen are covered by hand grenades.

Usually the automatic rifles with the squad cover the entire fire sector of the squad. They are so emplaced as to flank the front of adjacent squads. The riflemen usually occupy positions somewhat to the rear and flank of the automatic rifle emplacement and preferably about 30 yards from it.

The squad leader will choose supplementary positions for the members of the squad, to protect a squad's position from the flanks and rear. Generally, the supplementary positions will be chosen by the platoon leader, but in the absence of such instructions, the squad leader himself will choose such position or positions. Supplementary positions will be occupied when immediate threat exists of enemy attack from flank or rear.

As time and other duties permit, the squad leader will prepare a rough sketch of the squad sector of fire, showing prominent terrain features within the sector with the estimated ranges thereto. Such a sketch insures coverage of all important points and will be of great assistance as a handy reference as the defense progresses.

The squad seeks to make hostile airplane reconnaissance ineffective by avoiding unnecessary movement and by concealment and camouflage.

71. **Conduct of the Defense.**—Upon warning of an impending attack the squad leader will get his men to their positions immediately and engage targets which appear in his assigned sector when they arrive within effective range. Until the enemy arrives within close range the squad avoids any movement that would disclose its dispositions.

The riflemen of the squad cover areas dead to the fire of automatic weapons and thicken their fires within the effective range of the rifles.

The riflemen also protect from assault the automatic weapons, mortars and antitank guns which are in or close to the squad's area.

Eject with grenades and bayonets any of the enemy who enter the squad's position.

Frequently the enemy will bombard the position before he attempts to take it; pressing his assault as soon as the bombardment ceases. The squad makes a determined stand. It never falls back except upon the definite order of the platoon, company, or higher commander. Any individuals who pass along such an order will state the name of the person who issued the order and the place to which the squad is to go. In general, the success of the defense depends upon each squad group defending to the utmost in place. The stubborn defense in place by front-line units breaks up enemy attack formations, disrupts his planned fires and makes him vulnerable to counterattacks by higher units.

72. **Duties of Squad Leader.**—In the defense, in addition to his normal command duties the squad leader sees to the feeding and supply of his men, enforces the rules of hygiene and sanitation, and requires that the weapons and equipment of the squad be maintained in serviceable condition. He checks the status of ammunition supply within the squad and keeps his immediate superior informed of the amount of ammunition on hand. He should maintain a reserve of ammunition at his battle position at all times. When company or platoon local security groups are employed, he details a member of the squad to observe them.

During combat.—While withstanding an enemy attack the squad leader maintains fire discipline and controls the fire of his squad. He fires only in emergency, or when he considers the firepower to be gained by his firing to outweigh the necessity for the close control of the fire of his squad. At all times contact with platoon headquarters is maintained.

Any automatic weapons which may be under the squad leaders control will be of the greatest value in breaking up the enemy's attacks. Therefore, the squad leader will pay

particular attention to their positions, and he will exert himself and his men to the utmost to keep them in action.

The squad leader takes advantage of the darkness, fog, smoke or lulls to improve the defensive dispositions of his squad, and to establish contact with the platoon leader and with adjacent units. Upon establishing contact with adjacent squads, he will arrange for mutual exchange of fires.

Any casualty to the crew of a machine gun in an area near the squad which interferes with the operation of the gun will be replaced by a rifleman of the nearest squad. This is an important additional duty of the rifle squad leader, to keep that machine gun in operation.

Position of squad leader.—During the defensive battle the squad leader should place himself in a position from which he can discover new targets; control his squad; and maintain contact with platoon headquarters.

73. **Position and Duties of Assistant Squad Leader.**—The assistant squad leader is located in the squad defensive area where he can best assist the squad leader. He may have one or more prepared positions to meet the requirements of his various duties. The squad leader will usually utilize him to assist in controlling the fire, enforcing fire discipline or maintaining contact with platoon headquarters, instead of firing. He may be required to fire when the squad leader believes the fire is necessary.

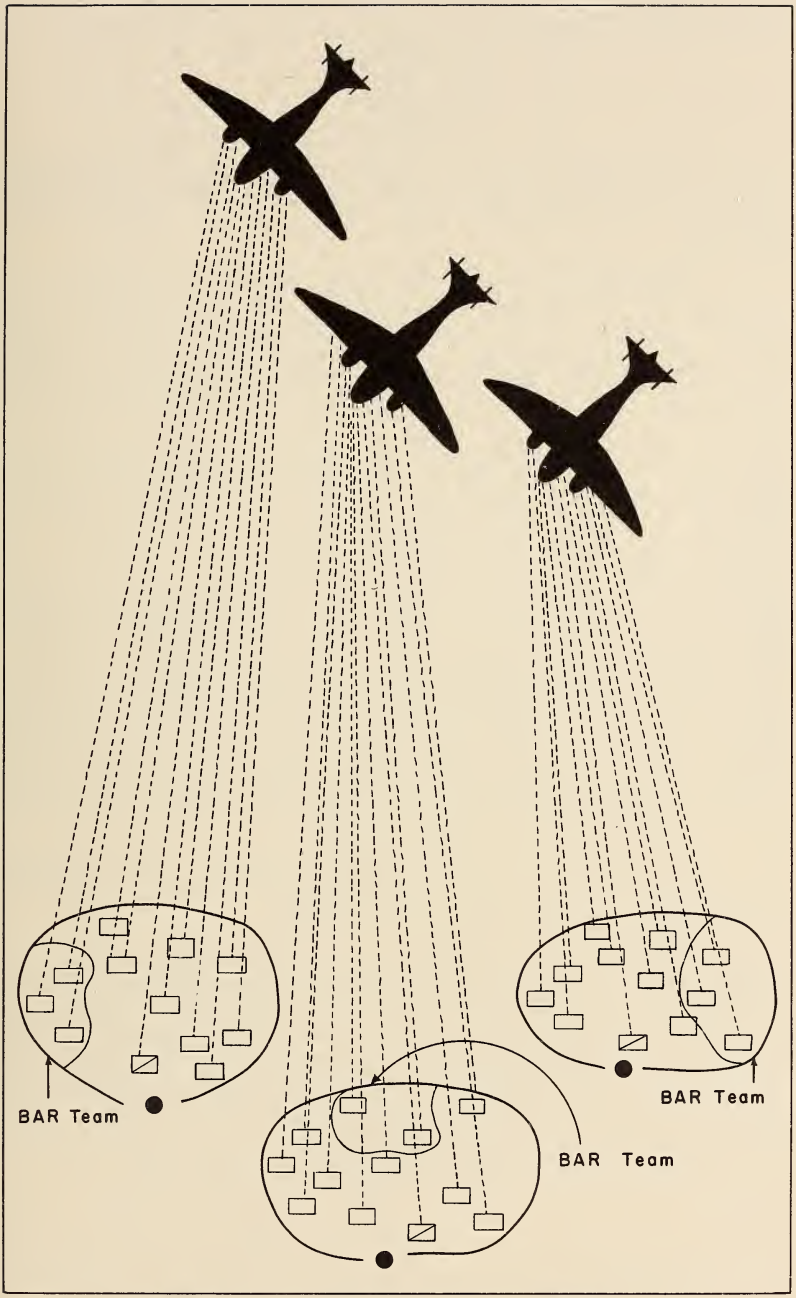
74. **Defense Against Tank Attack.**—Action in case of tank attack must be carefully prearranged. Riflemen and automatic riflemen generally take cover against the attack of heavily armored tanks. They must also move or occupy cover in such a way as to unmask the field of fire of friendly antitank guns. They utilize terrain impracticable for the movement of tanks or take cover in deep foxholes during the passage of the tanks and then reoccupy their firing positions.

Isolated tanks, particularly if immobilized can frequently be effectively attacked from the rear or from their blind angles.

Under all circumstances infantry following the tanks are fired upon at the earliest possible moment with a view to separating them from the tanks.

For employment of AT Grenades with M1 Launcher, see Supplement No. 1 AT Grenades, to "Weapons Marine Infantry Battalion" a publication of the Marine Corps Schools.

75. **Defense Against Air Attack.**—Infantry units must be fully trained and imbued with the determination to protect themselves against hostile aerial attacks without reliance upon special units. Concentrated rifle, automatic rifle and machine-gun fire is infantry's best protection against low flying hostile air attacks.



One method of squad antiaircraft defense

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Figure 17

The rifle squad in defense denies to hostile aircraft a remunerative target by—

(a) Concealment.

(b) Dispersion.

(c) A coherent plan of fire.

Concealment.—The concealment of ground units from hostile aerial observation is indispensible if the troops are to be spared the danger and annoyance of being attacked from the air.

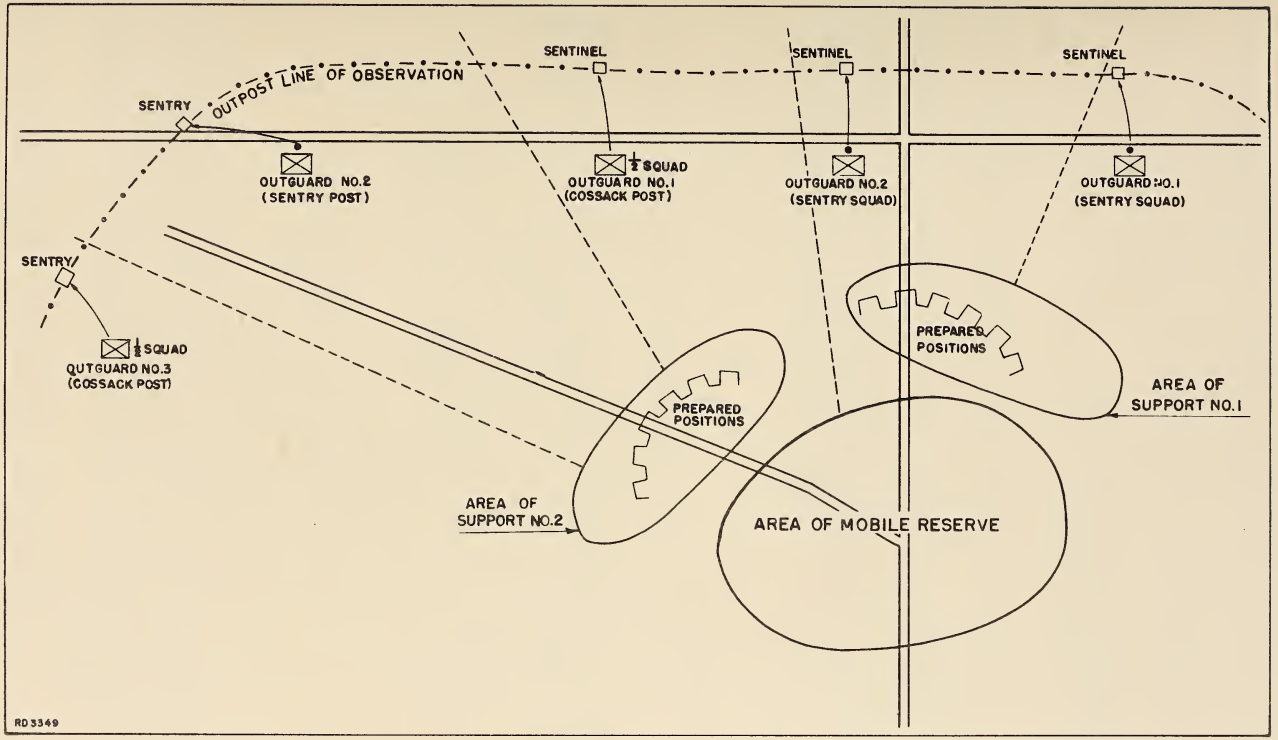
Dispersion.—While the squad organizes its area for a strong defense against ground attack, the individual positions of the squad members should be so dispersed that the effects of an attack from the air will not destroy the squad. Individual foxholes offer considerable protection against flat trajectory of the fragments of bombs.

A coherent plan of fire.—When occupying a defensive position the unit commander establishes a plan of fire. It is too late to do this after an air attack has started. The plan should be a simple one insuring effective fire distribution. One method is to assign the center or leading attack plane to the center squad, the left plane to the left squad and the right plane to the right squad. (Fig 17.) Defending troops direct all available fire against planes which attack them. Squads in the forward positions, i. e., nearest the enemy, do not, however, fire on planes unless they are directly attacked, as to do so discloses the location of their positions. However, all units whose positions have been located by the enemy, fire on hostile planes within range. It should be borne in mind that a large volume of small arms fire can be developed against low flying hostile aircraft with excellent results.

In addition to the Air Guards provided to give warning of an approaching attack, all members of the squad should be on the alert to watch for aerial targets.

76. Outpost.—When troops are in a defensive position, an outpost line of observation is constituted by outguards varying in strength from four men to a platoon. Likewise, when troops halt for several hours to rest, part of the command is placed so as to protect the remainder. In this latter case even though the nature of the operations of the main body is offensive, the work of the outguards becomes defensive in character. These protecting troops are called the outpost.

The outpost is divided as shown in Figure 18.



SUBDIVISIONS OF AN OUTPOST
COVERING A HALT FOR THE NIGHT
FIG 18

The reserve sends out the supports, and the supports in turn place small groups to their front to keep the enemy from surprising them. These groups are called **outguards.**

A squad when on duty as an outguard is called a sentry squad. A squad may be divided by the support commander into two and sometimes three separate groups and each group placed on duty at a different point. In this case each group is called a cossack post.

A sentry squad posts three reliefs of one or two sentinels each.

A cossack post posts only one sentinel for each of the three reliefs.

Supports and outguards are numbered counterclockwise from right to left.

The posts of the outguard and the number of sentinels will be given in the support commander's orders. The leader of the outguard will select the posts for the sentinels.

The posts of sentinels must be such that they can from cover:

(1) See the ground in front and to the flanks of the outguard.

(2) Be easily approached under cover from the rear.

During the day outguards are placed to see; at night to listen. At night, it may be necessary to change the position of the sentinels. The posts are chosen to cover possible avenues of approach in the outguard sector.

Members of the outguard not posted as sentinels rest nearby under cover and concealment.

Sentinels are given the following information:

(1) As to enemy:

(a) Direction,

(b) Probable routes of approach,

(c) Special sectors to watch.

(2) As to our own troops:

(a) Location of the support and outguards to the right and left. Number of his relief. Number of the outguard and number of the support. When asked by an officer or noncommissioned officer who he is, the sentinel gives the above information as follows: "Sentinel No.___, Outguard No.___, Support No.___."

(b) Any patrols which have gone out and the route of each patrol.

(c) Place where prisoners are to be taken. Place where messages are to be sent.

(3) Special signals, such as gas alarm, barrage, and countersigns.

(4) Names of features of military importance, such as roads, villages or streams (to be pointed out on the ground wherever possible.

The outguard commander will be told in orders what to do in case the enemy attacks. Usually in such cases the outguards drop back to the position prepared by their support.

77. **Withdrawal.**—When the squad is ordered to withdraw, the movement to the rear is coordinated with adjacent units and supported by the fire of friendly troops. The route over which the men are to retire is designated and the squad assembled at some point in the rear. The men retire from cover to cover, taking advantage of defiladed routes. The withdrawal is screened, as far as possible, from enemy observation. The squad leader withdraws with the last element of the squad, usually the automatic rifle team.

SECTION 3

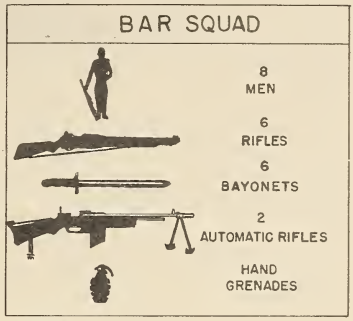
THE BAR SQUAD IN DEFENSE

78. **The BAR Squad, Composition and Armament.**—The BAR squad is a unit of the Rifle Platoon of the Rifle Company, and is in addition to the three rifle squads of that platoon. It consists of eight men, organized as follows:

1 Corporal Squad leader.
7 Privates and Privates First Class.

One of the Privates First Class acts as Assistant Squad Leader, two are automatic riflemen, two are assistant automatic riflemen and two are ammunition carriers.

The squad is armed with two automatic rifles and six rifles. The corporal may be armed with a Thompson Submachine Gun instead of a rifle.



The two automatic rifles of the BAR squad are in addition to the automatic rifle with which each rifle squad of the rifle platoon is equipped. There is also an extra automatic rifle normally carried in reserve on the company weapons carrier for each Rifle Platoon, making a total of six automatic rifles to the Rifle Platoon.

79. **Characteristics of the Automatic Rifle.**—The BAR Squad is armed with the Browning Automatic Rifle, M1918 A2. (Fig. 19.) This rifle is capable of the rapid production of a large volume of accurate, concentrated or distributed fire and offers a small target when in action. Automatic riflemen have the marching mobility of riflemen but not their capability for short bursts of speed. The automatic rifle is not suited for sustained fire for long periods, nor for indirect fire, but, for short periods of time, can produce a volume of fire equivalent to that of several M1 rifles. The automatic rifle is a most effective shoulder weapon against hostile aircraft. (Fig. 20.) It may fire armor piercing, ball and tracer ammunition.

FIGURE 19
Automatic Rifleman

FIGURE 20
Automatic Rifleman firing at hostile aircraft

The cyclic rate can now be changed at will from the normal rate of about 600 rounds per minute to a decreased rate of about 350 rounds per minute. This decreased cyclic rate has greatly increased the accuracy of automatic fire. It also enables the gun to be fired automatically from the shoulder in the standing position.

A stock rest and bipod mount have been provided to permit laying the gun on a final protective line during daytime. An elevating screw and clamp on the stock rest allow the gun to be laid and clamped for any desired range. Aiming stakes, or improvised stakes driven along the side of the barrel, can be used to control the direction of fire. Thus the gun can deliver accurate automatic fire along a predetermined line during periods of reduced visibility.

80. **The Automatic Rifle Team.**—The BAR Squad may be divided into two automatic rifle teams of three men each, one of whom is designated as team leader. Thus the Rifle Platoon leader has a highly flexible unit to augment the defense of his position. When the squad is divided into teams, the squad leader and his assistant, supervise the preparation of the firing positions and the supply of the teams, or where the additional automatic rifle is made available from reserve, they may constitute a third team.

The automatic rifles form the principal fire elements of the rifle platoon in defense. The teams generally occupy separate emplacements so located as to cover the entire sector of fire of the platoon. Where the platoon covers an exceptionally wide front, the automatic rifles may be assigned flanking missions, leaving frontal field of fire to the riflemen. Whereever practicable, alternate emplacements are selected for each automatic rifle.

Automatic rifle teams should be located within and attached to the unit occupying the defense area. (Fig. 16.) Each auto-rifle should be assigned a principal fire mission and a sector of fire. The sector of fire should not exceed 90 degrees. Auto-rifles open fire when enemy units arrive within close range and present a remunerative target.

When an auto-rifle team is attached to a rifle squad it covers the entire fire sector of the squad. It should be located to fire across the front of adjacent squads.

When auto-rifle teams are not attached to rifle squads, their exact locations and their principal fire missions are determined by the Platoon Leader assisted by the BAR squad leader. The Platoon Leader coordinates the auto-rifle fire with that of the light and heavy machine guns. The auto-rifles are sited to execute their principal fire mission.

81. **Principal Defensive Fire Missions.**—a. Cover by fire avenues of approach not covered by light and heavy machine-gun fire.

b. Cover by fire gaps in final protective lines of light and heavy machine guns.

c. Fire in support of adjacent combat groups by placing fire either across their front or along their flanks.

d. Cover intervals between combat groups.

e. Protect exposed flanks of the platoon.

The assignment of the same fire mission to both automatic rifles of the BAR squad will result in greater density of fire and more sustained fire. However, the number of fire missions to be performed usually will require that the auto-rifles be employed singly.

82. **Selection of Firing Positions.**—In the defense, auto-rifles may occupy primary or alternate positions. The mission assigned the squad is the governing factor governing the selection of primary positions. Other factors are:

(1) The sectors of fire.

(2) Safety for the auto-rifles and their personnel (cover and concealment).

(3) The time available.

(4) The routes of approach for occupation and supply.

83. **Preparation of Firing Positions.**—As soon as the location of a position is determined its preparation is begun. This work is usually accomplished in the following priority:

(1) Clearing fields of fire.

(2) Assembling camouflage and laying it out ready for use.

(3) Digging and camouflaging the emplacement for the primary position. (Fig. 21.)

(4) Preparing firing data to critical terrain features and supplying the position with ammunition and other necessary supplies.

All of the above operations may proceed simultaneously, different members of the team being assigned different duties. After the initial work has progressed to include an adequate emplacement for the primary position, an alternate position should be prepared. Covered routes between the positions should be selected, existing rifle or communication trenches and natural cover being utilized for the purpose as far as practicable. Where no covered route is available a shallow communicating trench should be dug and camouflaged. (Fig. 22.) Frequently riflemen will be called upon to assist in this work.

FIGURE 21

BAR Team in foxholes with camouflaged shallow communicating trench

FIGURE 22

Automatic Rifleman of BAR team in foxhole with teammate in shallow communicating trench

During the time that the primary position is being prepared the weapon should be prepared to fire against the enemy in case of attack.

84. **Fire Direction and Control.**—The platoon leader assigns a general position area and a target or a target area to the squad leader. The squad leader assigns approximate positions and targets or sectors of fire to the automatic rifle team. Fire sectors are assigned where definite targets cannot be definitely located or the teams are too widely separated for target designation by the squad leader. Where a line target is designated, fire may be distributed between the teams by the designation of a delimiting point in or near the target.

85. **Defense Against Tank Attack.**—Riflemen and autoriflemen generally take cover against a tank attack. Using armor-piercing bullets, the automatic rifles open fire on lightly armored vehicles.

86. **Antiaircraft Fire.**—Whenever practicable, BAR squads assigned to antiaircraft missions are employed as a unit. In shelter, the BAR squads of the company may be united under the direct control of the company commander in order to obtain concentrated fire effect. Where several automatic rifles are employed under common fire control, fire distribution is prearranged; the leading or right airplanes, the next succeeding to the rear or left are assigned to designated teams. Otherwise the same principles governing the Rifle Squad's defense against air attack, (Par. 75), apply to the BAR squad.

87. **Outpost Duty.**—A BAR squad or an automatic rifle team from the BAR squad frequently reinforces a rifle squad on outpost duty. It opens fire at long range on the advancing enemy. On close approach of the attacking force it withdraws from its position over routes previously selected to avoid masking the fire of the rifle echelon.

SECTION 4

THE RIFLE PLATOON IN DEFENSE

88. **The Rifle Platoon, Composition and Armament.**—The rifle platoon is the largest subdivision of the rifle company. It consists of:

a. A platoon headquarters.

b. 3 rifle squads.

c. 1 BAR squad.

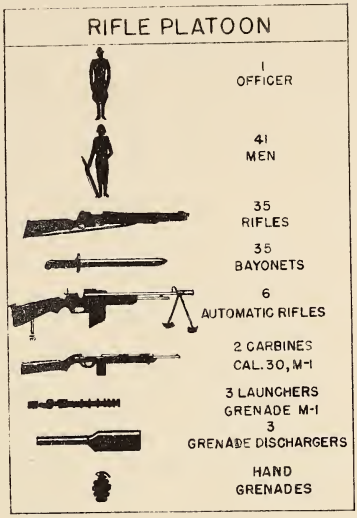
The platoon headquarters consists of:

a. A platoon leader (normally a lieutenant).

b. A platoon sergeant, who is second in command of the platoon.

c. 1 Sergeant, platoon right guide.

d. 4 Privates, or privates first class, three of whom are messengers and signalmen and one supply (ammunition, water and rations).



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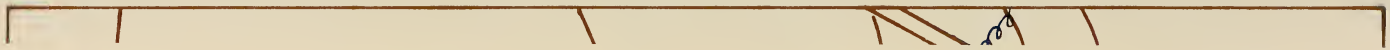
The platoon commander and the platoon sergeant are armed with the carbine. Other members of the platoon headquarters are armed with the rifle and bayonet. The three rifle squads and the BAR squad are armed as stated in Pars. 68 and 78 respectively.

89. **The Platoon Defense Area.** — Defense is accomplished by organizing, occupying and defending a series of mutually supporting defensive areas or tactical localities, each with a definite assignment of troops and mission. Thus, the Rifle Company Commander, assigned an area to defend, divides it among his platoons, and the ground actually occupied and to be defended by the platoon is called the Platoon Defense Area.

The entire Platoon Defense Area is not always physically occupied by the Platoon. (Fig. 23.) Terrain plays an important role. As the Company Commander divided the area assigned his company, so the platoon leader establishes within his area groups in positions that will give the strongest



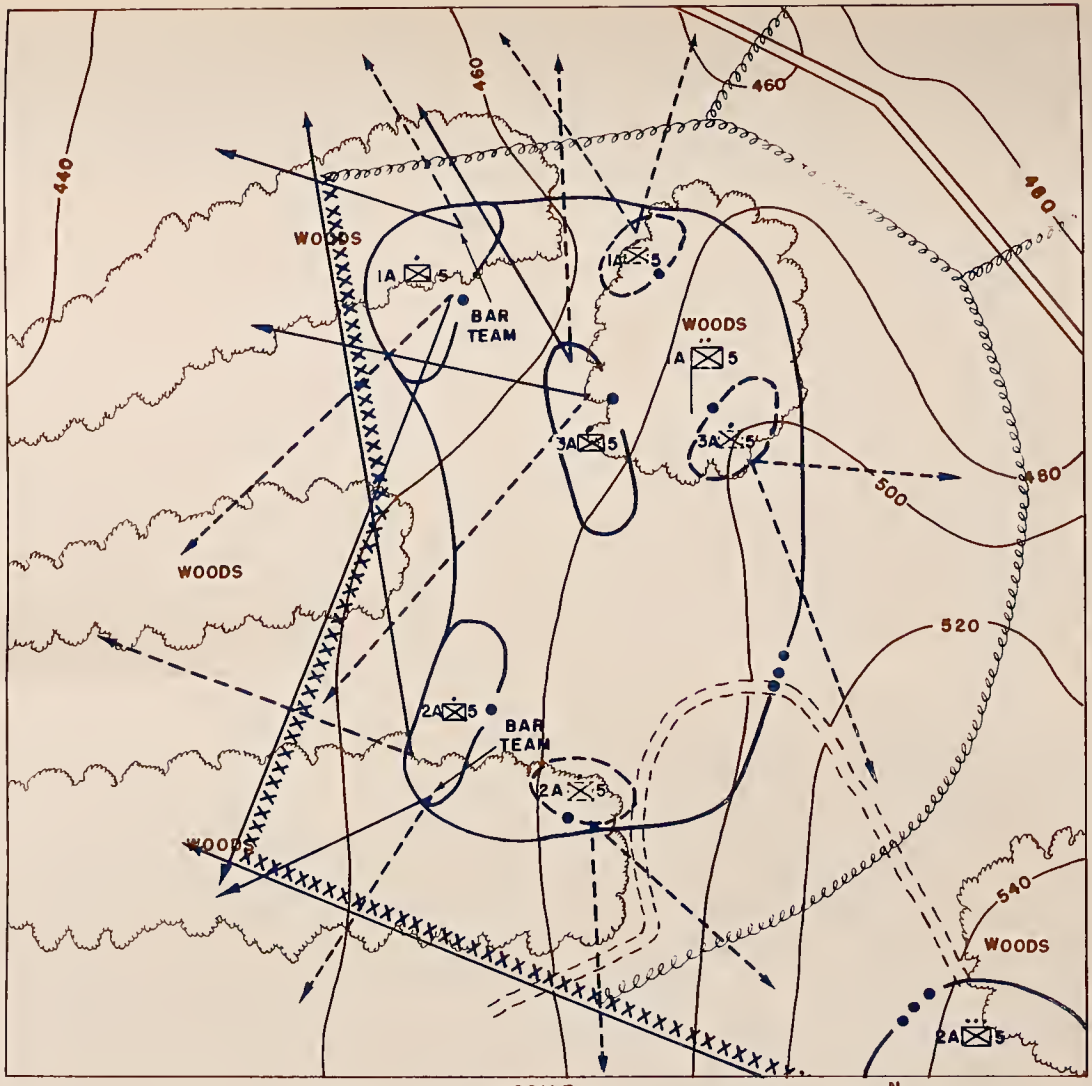


FIG. 23 RIFLE PLATOON IN DEFENSE
SHOWING AUTOMATIC-RIFLE TEAMS FROM BAR SQUAD ATTACHED TO EACH RIFLE SQUAD

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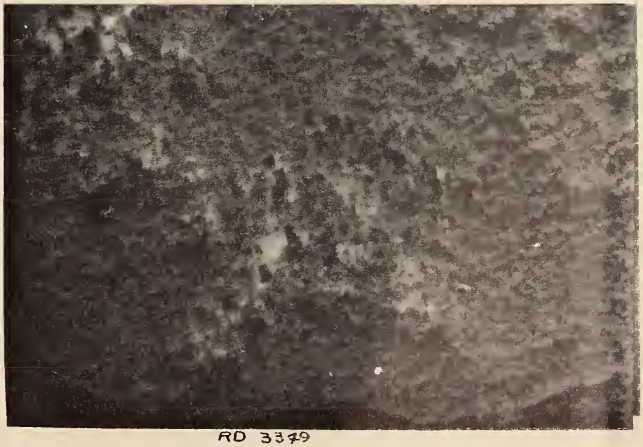

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RIFLE PLATOON IN DEFENSE

FIG. 24

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defense, covering the remainder of the area with fire. (Fig. 24.) The smallest of these groups may be two or three men. Other areas within the Platoon Defense Area may be occupied by half-squads, squads, squads reenforced by automatic rifle teams, mortars and light machine guns from the Company's Weapons Platoon and various other combinations. These groups are echeloned in depth throughout the battle position with varying intervals between them, that is, they are irregularly checkerboarded. They should be close enough for proper control and to be mutually supporting. The interval between groups is covered by the fire of mutually supporting groups and by the fire of groups in the rear.

The frontage which a platoon can adequately defend depends upon many factors, including its strength, the terrain, density of supporting fires, and the character of the opposing force. A platoon at full strength, as part of an infantry division and with flanks protected by other troops may defend a frontage of from 200 to 400 yards. The depth of platoon areas does not exceed 200 yards and is generally less.

Relatively narrow frontages are assigned on those parts of a position which permit of the covered approach of attacking forces to within close range of the position. Wide frontages are permissible where the hostile approach is exposed to observation and fire over a long distance. Obstacles along the front of the main line of resistance permit increase of frontage. Vital tactical localities are usually strongly held. At times, in order to effect economy of force, extremely wide fronts may be assigned to units in localities where a loss of ground will not affect the integrity of the defense as a whole. The mission of such units should be in keeping with their capabilities. The assignment of wide frontage to a unit decreases the depth over which its holding garrisons are deployed.

90. Instructions to the Rifle Platoon Leaders.—It is the duty of the Platoon Leader to assign missions to each squad and to the supporting weapons that may be attached. These missions are based upon the instructions he receives from his Company Commander which include:

a. (1) Information relative to the enemy.

(2) Position and mission of adjacent platoons and supporting weapons, including machine guns, antitank weapons and artillery fires in the platoon fire sector.

(3) Location of dead spaces in bands of machine-gun fire.

(4) Location and activity of detachments operating in advance of the main line of resistance.

b. (1) Decision of the Company Commander as to how he will use his Company to carry out his mission.

(2) The exact course of the main line of resistance in the platoon area.

c. (1) Specification of Platoon Defense Areas and sector of fire assigned to the platoon.

(2) Instructions relative to mortar and automatic rifle fires in accordance with the battalion fire plan (when required by the situation).

(3) Arrangements for mutual support by fire with adjacent platoons.

(4) Instructions relative to the development of the position (camouflage, combat emplacements, accessory defenses, clearing of the field of fire, dummy works, antitank defenses).

(5) Conditions under which fire is to be opened in case of attack.

(6) Commanders authorized to call for final protective fires.

d. Ammunition supply.

e. (1) Prearranged signals.

(2) Location of Company Command Post.

91. **Reconnaissance of the Platoon Area.**—Having received his orders from the Company Commander, the Platoon leader arranges for the movement of his platoon to the area assigned, and then makes as detailed reconnaissance of his Platoon Defense Area and the ground to his front as time will permit. During this reconnaissance he determines, as far as practicable—

a. The approaches available to the attacker and their relative danger to the defense of the area assigned.

b. The nature of the fields of fire.

c. Available cover and concealment.

d. Available routes from the rear.

e. The positions on the ground of boundaries and limiting points.

f. The location of adjacent combat units.

g. The positions on the ground of machine guns to be placed within the Platoon Area; the sectors of fire and the final protective lines of other machine-guns firing in support of the platoon; defiladed spaces in final protective lines.

h. The positions of any antitank guns or mortars to be located in or near the Platoon Defense Area.

i. The indicated location of artillery, battalion, and company mortar fires to be placed in front of the platoon position.

j. The nature of the ground in front of the Platoon Position as it affects the strength, location, and route of withdrawal of local security detachments.

The platoon leader should make arrangements for exchanging mutually supporting fires with such commanders of nearby combat units as he is able to meet at this time, and for protecting supporting weapons, and coordinating his fires with theirs.

92. **Instructions to Squad Leaders.**—While making his reconnaissance the Platoon Leader makes an estimate of the situation confronting his platoon and decides upon a plan of defense within the outline of the orders already given him. He then issues to his squad leaders his orders for the defense of the platoon area.

Generally the platoon order will be oral and fragmentary in form. Frequently the platoon leader will place his rifle squads and BAR teams in the positions selected for them and direct them to commence the work of organization. While the work is going on he will give his subordinates such additional information and instructions as he may deem necessary. Whenever the initial order of the platoon leader is fragmentary, the remaining details of the complete order will be imparted to the platoon at the earliest possible moment. Whether fragmentary or complete, the issuance of the order habitually follows the standard "Five Paragraph Form," to insure nothing being overlooked. In his orders and subsequent actions the Platoon Leader—

a. Distributes the assigned platoon fire sector to the rifle squads.

b. Fixes the location of automatic rifle emplacements so as to cover the assigned fire sectors and provide mutual flanking support.

c. Assigns fire and cover positions to the rifle squads. (Par. 70.)

d. Checks the arrangements of squad leaders for observation and command and verifies their correct understanding of their fire sectors.

e. Assigns a firing position and targets to the 60mm mortar (if attached) so as to cover dead spaces in the bands of machine-gun fire and to bring down fire on any cover within midrange under which hostile forces can assemble for attack.

f. Designates alternate positions for the automatic rifles, the mortar and the rifle squads.

g. Select as command post a location which will afford effective observation over the platoon area, its sector of fire, and the areas of adjacent platoons, and which will facilitate his movement to any part of the platoon area where his presence may be required.

h. Posts an observer at or in the close vicinity of his command post and provides reliefs so as to maintain continuity of observation by day and by night.

i. Supervises the organization and occupation of the position.

j. Conducts the defense.

93. Organization of the Ground.—a. The strength of a position is increased by clearing fields of fire and the construction of field fortifications and obstacles. Work on strengthening the position is continuous as long as it is occupied. The degree and priority of organization of the position is usually prescribed by the company commander. The usual priority is—

(1) Clearing fields of fire.

(2) Preparing weapons emplacements.

(3) Digging foxholes.

(4) Digging shallow connecting trenches.

(5) Construction of wire entanglements and other obstacles around the groups.

b. The platoon defense area must be prepared for all-around defense. Thus organization of the ground includes the preparation of supplementary positions so that fire can be delivered in any direction. Supplementary positions are staked out early in the organization of the ground and actually prepared as time becomes available. They are occupied when enemy attack requires the protection of the flank or rear of the group position. During the organization of the platoon position rifles and automatic rifles are never stacked. Each member of the platoon keeps his weapon close at hand and ready for instantaneous use at all times. Otherwise, he is not prepared to defend the position in case of a surprise enemy attack.

(1) Security.—During the organization and occupation, steps must be taken to insure timely warning of the approach of the enemy. The measures to be taken will usually be stated in the company defense order. In addition, measures for local security of the platoon should be taken. This usually is accomplished by squad leaders detailing sentinels to observe to the front and flanks at all times.

(2) Supervision of organization and occupation of the position.—The platoon leader supervises the execution of the work of organization and adjusts minor discrepancies and misunderstandings. At this time, also, he should confer with adjacent group commanders. Readjustments of initial dispositions frequently will have to be made, and the platoon leader constantly should seek better coordination of his fires with those of adjacent units. He should now make a sketch showing the dispositions of his units and send it to company headquarters.

94. Communication.—Communication within the groups is by oral orders, arm and hand signals. The platoon leader

places himself within the position so that he can readily get in touch with his subordinate leaders. Communication with company headquarters is by messenger. Covered routes to the rear to be used by messengers and carrying parties should be located. Where none exist, shallow communication trenches should be dug.

95. Arrangements for Securing Ammunition, Food and Water.—Ammunition should be placed in the initial position of each squad and in the supplementary position, and a reserve retained at the command post of the platoon. The method of supplying the platoon with food and water will be greatly influenced by the enemy situation. If the threat of hostile attack requires the presence of all individuals in the area, food and water should be brought forward from the company ration truck or kitchen by carrying parties. These carrying parties may be from reserve or support units, but if possible should be from the unit to be fed. If the attack is not imminent the platoon may be fed in reliefs at the company mess location or a small group may be sent to the rear which, after being fed, carries water and food forward for the remainder of the platoon. This latter method should in most instances give the best results. The habitual grouping of men must be guarded against at all times, or hostile air attack will be almost certain.

96. Coordination of Fires.—The combat strength of the platoon is increased by a well-planned system of coordinated fires. The fires of automatic rifles, squads, and smaller groups should be sited so as to have a good field of fire to the front and flanks of the position, cover the enemy approaches to the position, and so that these defensive fires may be directed across the front of other units within the platoon and adjacent groups. (Fig. 24.) By this means the flanks and defiladed spaces which cannot be reached by the weapons of one group may be reached by the weapons of another. Front line machine guns are sited to place interlocking bands of grazing fire across the front of the positions. The groups protect the machine-gun crews from small groups of the enemy who may infiltrate into the position. Riflemen cover the dead spaces in the bands of machine-gun fire so that the entire front is covered with fire.

97. Conduct of the Defense.—Upon the approach of the enemy, all elements of the platoon take their battle positions. Individuals remain under cover until the enemy arrives within effective range of their weapons. Then all targets appearing in the assigned sectors of individuals and groups are taken under fire and kept under fire in order to break up the attack before it reaches the position. If the enemy succeeds in infiltrating through the intervals to positions which threaten the flanks and rear of the platoon, units or individuals are moved to supplementary positions to meet the threat. If the enemy

does enter the position, he is met and driven out by fire, hand grenades, and the bayonet. In general, the success of the defense depends upon each group holding its position. The irregular arrangement on the ground of squads and individuals insures that enemy groups which work past forward groups will be met by the fire of those in the rear.

Mutual supporting rifle and automatic rifle fire will be delivered from one group across the front of an adjacent group when the adjacent group position is in grave danger of being entered by enemy forces and the assisting unit is not too heavily engaged within its own sector. Close in flanking machine-gun fire across the front of adjacent groups is normal.

In case of penetration of an adjacent platoon area squads or parts thereof are moved to alternate emplacements and form a line of resistance toward the exposed flank. The platoon holds its own area against a flank attack but does not move any of its elements into the adjacent area.

The platoon sergeant and the platoon guide take post where they can best assist the platoon leader. Usually one takes a secondary observation post, and the other watches the platoon leader's signals to the squads and sees that they are understood and carried out.

98. **Procedure in Hasty Defense.**—a. **General.**—When the defense is to be assumed while in close proximity to or in contact with the enemy, the procedure given in paragraph 93 will be modified according to the time available and the enemy situation. No matter how hurriedly the defense is initiated it must be based on a plan.

b. **Defense assumed in contact with the enemy.**—

(1) If, during the attack the platoon is halted by enemy fire, it digs in and holds the ground it then occupies until other action is prescribed. In this case the procedure followed in assuming the defense will vary greatly from that given in paragraph 91. The reconnaissance of the platoon leader will probably be only that which he can perform from his position flat on the ground. Squads and attached weapons may be unable to change their positions. The organization of the ground will consist of individuals digging foxholes. The coordination of fires with other units will be more limited.

(2) The platoon leader should take advantage of every opportunity to increase the defensive strength of the platoon by redisposing squads, organizing the ground, coordinating fires, and otherwise strengthening the position in accordance with his definite plan of defense.

99. **The Support Platoon in Defense.**—**General.**—The rifle company in defense is disposed in depth. One platoon or its equivalent, is usually located in rear of the forward groups; it is then called a support platoon. The support platoon may

organize and occupy one support position with the entire platoon, or with the platoon less detachments assigned to other duties.

100. Missions of the Support Platoon.—The location and mission of a support platoon will be prescribed by the company commander. The mission may include all or part of the following:

a. To protect the machine guns, antitank guns, and mortars in the vicinity.

b. To cover by fire the intervals between forward groups.

c. To block by fire the approaches from the flanks or rear of the company area.

d. To fire into forward positions should they be captured by the enemy, in order to block his further advance and to prevent him from utilizing the favorable characteristics of the captured terrain.

e. To counterattack or to support by fire counterattacks of other troops to retake a forward position or vital terrain feature captured by the enemy.

101. Actions of Support Platoon Leader.—The platoon leader takes the necessary measures for the observation of the foreground of his position and distribution of his units into reliefs. Squads are disposed usually with one or more alternate positions so as to offer resistance toward a flank and act by fire or counterassault against enemy elements penetrating the front line. Automatic rifles are assigned positions for antiaircraft fire affording the best available defilade. They are assigned different positions for ground fires. Fire control of automatic rifles is prearranged by the platoon leader or the platoon sergeant. In close terrain, a support platoon or elements thereof may be held mobile for counterattack. Plans are made by the Platoon Leader for one or more lines of action.

102. Plan and Procedure of Support Platoon Defense.—The provisions with reference to forward platoons apply to support platoons. In addition, the defense plan should provide for the action to be taken by the support platoon in the event that a forward platoon area, or terrain feature vital to the defense, is captured by the enemy.

103. Counterattacks.—As a rule counterattacks should not be made by a support platoon that is engaged in a fire mission on the battle position. The fire of the support platoon is usually an integral part of the coordinated system of defensive fires of the company and its most effective employment will usually be the fulfillment of its fire mission. However, the support platoon may be directed to counterattack to retake a

forward position captured by the enemy and plans for executing such missions should always be made by the platoon leader. In certain situations a counterattack mission for the support platoon may be paramount to a fire mission. For example, in a hastily assumed defense the support platoon may be unable to occupy an organized firing position; at times firing positions may not be available because of thick woods or numerous buildings, or the platoon may be located on a reverse slope. In such cases the primary mission of the support platoon may be to counterattack and plans are made accordingly. A counterattack launched by a support platoon will seldom have fire support other than that which can be quickly delivered by adjacent combat groups and direct supporting weapons.

104. Security Missions of the Rifle Platoon.—Missions of the platoon may comprise occupation of detached posts in advance of the main line of resistance (or when a regular outpost is established, in advance of the outpost position); constituting an outpost support; and, operating as advance (rear) party of an advance (rear) guard.

Advanced posts conduct delaying action against enemy attack. They hold positions giving long-range views over the foreground of the position. They develop a heavy volume of fire against the enemy advance, and by their action mislead him as to the dispositions of the principal defending forces. Their lines of withdrawal are prearranged, and the withdrawal is so executed as not to mask the fire of the troops in the rear.

When troops in the field are halted for any considerable length of time, an outpost is established. A temporary outpost is usually established by the advance (rear) guard for a marching column whenever the halt period is sufficiently protracted to allow such disposition.

105. The Platoon as the Support of an Outpost.—a. The platoon will usually be the support of an outpost; it will seldom be a reserve. The platoon leader is given in orders the number of his support, its approximate location, and the sector it is to defend.

b. **Action of platoon leader when he receives his orders.**

(1) He assembles his platoon sergeant; platoon guides, and squad leaders and issues his preliminary orders. He informs the leaders of the limits of the sector assigned to the platoon, the locations of the units on the right and left, and the location of the reserve and the support line of resistance.

(2) He then marches his platoon to its sector and makes a personal reconnaissance. He selects the posts for his outguards.

(3) He issues the remainder of his orders to the leaders, or to the entire platoon less any protecting groups

that may have been sent out. He points out the location of the support, assigns outguards to the posts selected; gives the routes by which the posts are to be reached; states what the outguards will do if attacked; states the preparations to be made for defense; prescribes positions and sectors of fire of machine guns, if attached; informs the platoon of the messing arrangements, where to send messages, and the location of the command post.

(4) He provides for visiting patrols, sentinels for duty at the support, reliefs for preparation of the position, and all routine details such as kitchen police and rations or carrying parties.

(5) He inspects the outguards soon after they are posted. He makes a sketch showing the location of the support and outguards and sends it to the outpost commander.

(6) He instructs visiting patrols in sufficient time to permit them to go over their routes in daylight.

(7) He orders any special patrolling which he may desire.

(8) He inspects outguards frequently during the night.

c. **Preparation for defense.**—The main resistance will rarely be made on the line of outguards. Outguards are usually instructed to resist until the enemy forces them back, when they withdraw along a route indicated by the support commander to the line of main resistance. Outguards dig foxholes for individual protection or use such natural cover for firing as is available.

d. **Patrolling.**—(1) Communication with adjacent supports and between outguards is maintained by means of visiting patrols. The support commander has prominent points or prominent routes beyond the line of outguards reconnoitered by patrols during the day.

(2) Reconnaissance beyond the line of outguards at night is limited to roads and paths.

e. **Conduct of men at post of support.**—(1) When not on duty requiring arms, men at the post of the support are permitted to stack arms and fall out.

(2) Fires at the post of the support are never allowed.

(3) Smoking may be permitted under favorable conditions.

106. The Platoon as a Picket.—A platoon as a picket conducts itself in the same manner as described for the platoon as a support of an outpost.

107. **The Platoon as a Detached Post.**—a. **Description.**—Distant points, usually to a flank and not included in the general outpost line, are sometimes occupied by groups sent from the main body or from the outpost. These groups form what are known as detached posts. A platoon may be used at a detached post.

b. **Mission.**—A detached post may be established to protect a feature of importance to the command, such as a bridge, or it may be detailed to cover, by means of patrols, a certain area.

c. **Distance from main outpost line.**—Detached posts will usually be a mile or more from troops of the outpost line. They are, therefore, subject to attack from any direction and must at all times be ready to resist to front, flanks, or rear. This all-around preparedness is best obtained by placing a few men to observe, holding the remainder under cover in readiness to resist.

d. **Patrolling.**—The patrolling to be done will depend upon the orders given the commander. Roads and paths to the post of the group are patrolled frequently and at irregular intervals. If the mission requires a stand to be made, the detached post protects itself by means of an outguard and patrols and makes thorough preparation for all-around defense. If the mission is to reconnoiter a certain area and fall back when attacked, less preparation for defense may be made.

e. **Connection with other troops.**—Patrols from the main body or from the outpost will connect the detached post with other troops.

108. **Position Defense.**—a. **Preparations for relief.**—When a platoon is notified that it is to be called for duty in a defensive position, the leader assures himself by inspection that the arms, clothing and equipment of his men are in proper condition and each man has the ammunition, reserve rations and kit prescribed by orders and regulations.

b. **Reconnaissance.**—The relief of troops holding part of a defensive position usually takes place at night. The platoon leader makes a personal reconnaissance by daylight of the position to be held by his platoon. Accompanied by a messenger, he proceeds with his company commander to the command post of the company to be relieved, where the plan of defense of the company area is studied. He then goes with his messenger and a guide furnished by the outgoing company to the command post of the platoon which he is to relieve. He sends the messenger back to join the incoming company commander and releases the guide.

c. **Plan.**—He receives an extract of the plan of defense from the platoon leader he is to relieve. The extract comprises—

(1) Mission of the platoon and each squad (for example, to cover a sector of fire or to flank an adjacent element; or to occupy a combat position in case of alarm, together with contemplated future action).

(2) Detailed sketches of the dispositions and of the hostile trenches.

(3) Missions of adjacent platoons, means of communication with them and with the company commander.

(4) Plan of work.

d. **Inspection.**—The two platoon leaders then make an inspection of the position and arrange for such transfer of supplies and equipment as may be authorized. The incoming platoon leader obtains information concerning—

(1) Conduct and habits of the enemy; strength and location of hostile obstacles; gaps in hostile wire; location of hostile posts, machine guns, and mortars; mining activities; hostile patrols.

(2) Lay of hostile close-in defensive fires, both artillery and machine gun, and gaps therein.

(3) Points in own lines exposed to fire of hostile snipers.

(4) Location of friendly machine guns; their sectors of fire and gaps in their final protective lines.

(5) Location of supporting mortars and their fires.

(6) Location of antitank weapons and their sectors of fire.

(7) Location of artillery barrages in front of the position.

(8) Signals for starting and stopping close-in defensive fires.

(9) Location of nearest artillery observer.

(10) Location, nature and capacity of shelters.

(11) Defensive measures against gas and system of giving gas alarm.

(12) Accessory defenses and hidden passages through the wire.

(13) Location of nearest aid station and route thereto.

(14) Arrangements for supply of water, ammunition (including grenades) sandbags, wire, pyrotechnics and other supplies.

e. **Point of assembly.**—A point of assembly for guides who are to lead incoming platoons is usually designated.

f. **Preparations by outgoing platoon.**—The outgoing platoon makes its preparations for departure before the hour of relief. It takes with it only its own equipment. Grenades and cartridges in excess of the number prescribed to be carried on the person are left in the position. A list is prepared of trench stores on hand which the incoming platoon leader is to check and sign. Trenches, shelters and heads are left clean.

g. **Arrival of incoming platoon.**—The guide meets the incoming platoon at the assembly point at the designated hour and conducts it to a designated point in the platoon area. The squads of the incoming platoon are then assigned to positions. They are conducted to those positions by guides furnished by the corresponding squads of the outgoing platoon. Individual observers and sentries are then relieved. The leader of the outgoing platoon is responsible that no man leaves his place until the member of the incoming platoon who is to relieve him is posted and is thoroughly familiar with all of his duties while so posted.

h. **Instruction to incoming platoon.**—At some convenient time the incoming platoon leader informs his men concerning their firing or assembly positions and duties in case of attack, the parts of the position exposed to the fire of hostile snipers, the location of ammunition niches and heads, and the location of the nearest aid station and platoon, company and battalion command posts, and routes thereto.

i. **Completion of relief.**—As soon as he has taken over his position, the incoming platoon leader reports that fact to his company commander. The outgoing platoon leader marches his platoon out of the company area when so directed by his company commander. In case of attack while the relief is in progress, the outgoing platoon leader retains command.

j. **Inspection by incoming platoon leader.**—The incoming platoon leader inspects the position of each element as soon as the position has been occupied to insure that each squad leader understands his orders and that all parts of the platoon are in readiness for defensive action.

k. **Dispositions.**—Unless cogent reasons for a change are apparent, the plan of defense in force at the time of relief continues in force during the first night of occupancy. The routine varies as to the nature of the position held and its location in the system of defenses.

l. **Daily routine.**—(1) The platoon sergeant keeps a duty roster. Details for carrying parties, working parties, and other service are adjusted in an equitable manner. Each squad details its own sentries; details are made by the platoon only when the entire unit is sheltered close together. Men are warned for duty and informed as to the hour when the duty is to commence. Bulletin boards are improvised for the posting of platoon orders, when practicable.

(2) One hour before daylight and at dusk all officers and men go to their proper posts. At the afternoon formation, rifles, ammunition and equipment are inspected, and the firing position of each man is tested to see that it is suitable. All gas defense measures are inspected and alarm apparatus tested. At the morning formation, ammunition is issued to replace that expended during the night.

(3) The Platoon leader holds practice alerts and alarms. The prompt issue of troops from shelters, the manning of firing or assembly positions, the preparation for counterattack are practiced. The ability of the platoon to meet a sudden hostile attack depends on the efficiency of its sentries and observers and the promptness with which the platoon takes its posts when the prescribed alarm is given.

(4) If necessary, the platoon leader makes provision for heating soup and coffee (charcoal, solidified alcohol). He takes all possible measures for the proper sustenance of his men. Ration parties carry back unserviceable materiel and the weapons of the killed and wounded.

(5) The helmet is always worn and the gas mask carried. In a combat echelon company, the men are always under arms; the pack, canteen and blanket are set in order in the shelter. Rifles are cleaned and oiled daily and after a gas attack.

SECTION 5

THE WEAPONS PLATOON, RIFLE COMPANY, IN DEFENSE

109. The Weapons Platoon, Rifle Company, Composition and Armament.—The Weapons Platoon of the Rifle Company consists of—

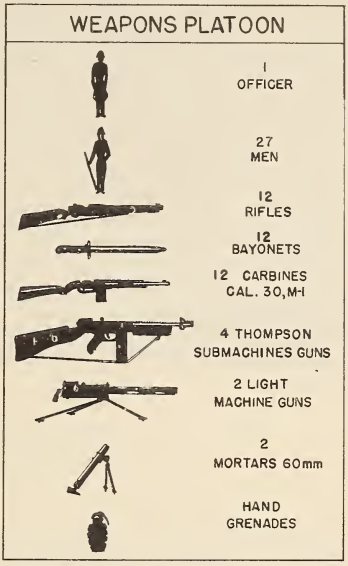
a. A Platoon Headquarters.

b. A Mortar Section.

c. A Light Machine-Gun Section.

The Platoon Headquarters consists of a platoon leader, normally a lieutenant, a gunnery sergeant who is second in command, and two privates who serve as messengers and signalmen. The lieutenant and gunnery sergeant are armed with the carbine, while the two privates are armed with the rifle.

The Mortar Section is in charge of a Sergeant who is Section Chief and consists of two Mortar Squads of 5 men each, one of whom is a Corporal and Squad Leader.



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Each squad has a 60mm mortar. The mortar is served by a gunner, an assistant gunner and two other privates who handle ammunition, water, rations, etc. (Fig. 25.)

FIGURE 25

The 60mm Mortar Squad
(Shown without cover to illustrate organization)

The sergeant, the gunners and assistant gunners are armed with the carbine. The corporals are armed with the Thompson Submachine Gun and the remaining privates with rifles.

The Light Machine-Gun Section is in charge of a Sergeant who is Section Chief, and consists of two light machine-gun squads of six men each, one of whom is a Corporal and Squad Leader.

Each squad has a light machine gun, cal. .30 M1919A4. There are two light machine gunners to each squad and three men for supply (ammunition, water, rations, etc.) (Fig. 26.)

The Sergeant Section Chief and the light machine gunners are armed with the carbine. The squad leaders are armed with the Thompson Submachine Gun and the remainder of the privates with rifles.

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FIGURE 26

The Light Machine Gun Squad
(Shown without cover to illustrate organization)

The personnel of the Weapons Platoon are not only trained as individual Marines, but in the use of all the weapons with which the platoon is equipped. Likewise, the noncommissioned officers of the platoon are trained to take charge of either a mortar or light machine-gun section.

110. Characteristics of Weapons.—a. **The light machine gun.**—The light machine gun, cal. .30 M1919A4, is a weapon that fires small arms ammunition automatically with recoil supported by a fixed mount. It is air-cooled and relatively mobile. Its crew can maintain the march rate of a rifleman, but cannot move at the high speed of the individual rifleman. It delivers a large volume of fire rapidly and accurately. The capacity of the gun on its ground mount for overhead, indirect fire, and antiaircraft fires is limited. Its characteristics fit it for use in the attack for the close support of the smaller infantry units by flanking action; in defense to supplement the action of heavy machine guns. Within midrange (400-600 yards) its accuracy is sensibly that of the heavy machine gun.

b. **The 60mm mortar.**—The 60mm Mortar is a highly mobile and accurate curved-trajectory weapon, using an explosive projectile weighing approximately 3½ pounds, with a useful range of about 1,000 yards. The effective radius of burst of the high explosive projectile is about 15 yards; casualty-producing fragments carry much further. The barrel and bipod together weight 28 pounds, the base plate 23 pounds. Its rate of fire may reach 20 rounds per minute. The weight of its ammunition exacts economy in expenditure. Commanders must always give especial consideration to the available and prospective ammunition supply in assigning missions to the mortars. A supply of mortar ammunition is usually dumped in a covered location convenient to the mortar positions. From this location it is carried to the mortar by the ammunition carriers of the squad.

The cover requirements of the mortar are slight because of its low relief. Minor terrain features afford adequate cover. The curved trajectory of the mortar enables it to take advantage of deep defilade and to exercise a wide choice in the selection of positions on varied ground. The mortar is adapted to overhead fire, to fire from masked positions and to fires against defiladed targets which cannot be reached effectively by the fire of flat-trajectory weapons.

In addition to its fire missions, the mortar serves the purpose of a rifle company signal projector.

111. **General.**—The Weapons Platoon, with its light machine guns and mortars, strengthens and augments the defense of the rifle company. The Company Commander specifies the employment of the weapons of the platoon, including firing positions and sectors of fire to be covered. He is assisted by the Weapons Platoon leader who makes the necessary reconnaissance of the company defense area and is always prepared to recommend firing positions and sectors of fire for each weapon of the platoon.

112. **Duties of Personnel, Platoon Headquarters, in Combat.**—While the Platoon Leader is responsible for the training of the entire platoon and leads it as a unit during route and approach march, during combat he takes personal charge of the Mortar Section. The control of the light machine guns passes to the leaders of the rifle platoons when they are so assigned. If the Light Machine-Gun Section is retained under company control, it functions under its own Section Leader.

The Gunnery Sergeant, second in command of the platoon, assists the platoon leader in control of the platoon. When directed he joins the company commander and acts as agent for the platoon leader.

One messenger accompanies the platoon leader and one reports to the company commander when so ordered.

When a defensive position is to be occupied, the platoon leader moves with the company command group and executes such reconnaissance as may be directed by the company commander or as may be indicated by the situation. He conducts reconnaissance with a view to recommending to the company commander the employment of the mortars and light machine guns in the defense.

A ¼-ton truck, assigned to Company Headquarters is available as a weapons carrier. For the most part, however, weapons will have to be manhandled, as the truck cannot always transport all of them and besides it has other utility functions. The platoon leader directs the movement of the carrier to the off-carrier position and will inform the section leaders as to the location of the firing position area or areas that have been selected. The section leaders move the sections with their weapons to the vicinity of the position area and inform squad leaders as to the approximate position of each piece. The squad leaders make the detailed reconnaissance for the exact location of the firing positions.

113. The Mortar Section in Defense.—The mortars are employed to cover dead spaces in the bands of machine-gun final protective fire and to fire on defiladed areas within midrange where hostile forces might assemble for attack. The execution of these missions may require one or more supplementary emplacements.

The Company Commander's orders for the defense designate the employment of his two mortar squads, including both their firing positions and sectors of fire. He may attach one or both squads to a rifle platoon or retain one or both of them under company control. Usually one squad is attached to each of the two front line rifle platoons. (Fig. 25.)

When a mortar is attached to a rifle platoon, the rifle platoon leader is charged with functions of fire direction.

When the mortar squads are held under company control, the section leader supervises the preparation for fire missions assigned by the company commander. The platoon leader prepares fire data for any special fire missions which require the concentration of the fires of the two mortars. He supervises the replenishment of ammunition of the mortars attached to rifle platoons.

114. Fire Direction and Control.—The mortar squad is the basic unit of fire control. The squad leader controls the fire of his mortar from an observation post at or near the firing position of the piece. The section or platoon leader exercises immediate fire direction and concentrates or distributes the fire by assignment of targets or sectors of fire. In defense the mortar squad is assigned a primary target area and may be assigned secondary target areas. Target areas are usually about 50 by 50 yards. Fire is opened on signal prescribed by

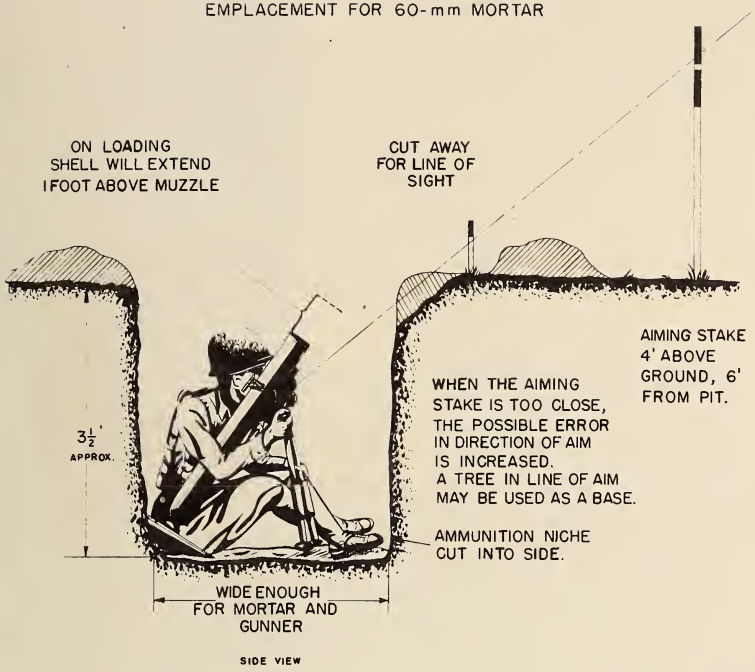
the company commander or on orders of the leader of the rifle platoon to which the mortar may be assigned. On signal for the opening of final protective fires, mortars fire on their primary target areas at the prescribed rate for the prescribed length of time. When not actually engaged in firing or in preparing to fire on another target, the mortar is laid to fire on its primary target area.

115. Firing Positions.—In all cases the mortar positions must be within effective range of the targets and afford observation of the targets and friendly front-line troops. Wherever practicable mortars fire from fully defiladed positions. (Fig. 27.)

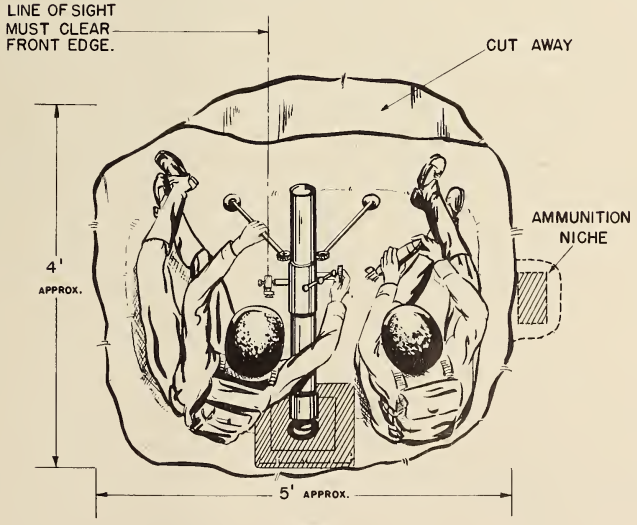
FIGURE 27
60mm Mortar in position

On flat terrain, however, the occupation of open positions is sometimes necessary to bring the mortars into proper relation to their targets and the front-line troops. Positions permitting covered approach from the rear greatly facilitate ammunition supply and increase the value of the mortar as a supporting weapon. This consideration, however, must not be given precedence over the requirement of proper location with reference to the target and the main line of resistance. In locating the mortar position, advantage is taken of natural vegetation to conceal the piece from observation. Natural or artificial means are employed to camouflage the weapon and its emplacement. Where the situation indicates a prolonged occupation of its position, alternate mortar emplacements are selected. For a 60mm mortar emplacement see Fig. 28.

EMPLACEMENT FOR 60-mm MORTAR



SIDE VIEW



TOP VIEW

FIG. 28

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Mortar emplacements should be within arm-and-hand signaling distance of the post of the commander under whose direction the mortars are operating (rifle platoon or weapons platoon commander).

Distribution of the mortars should be made with a view to their ability to support the rifle platoons rather than to facilitate section or platoon concentrations of fire.

116. The Light Machine-Gun Section in Defense.—The light machine gun is a direct fire weapon designated to deliver automatic fire at close and midranges against personnel and unarmored vehicles. It is primarily designed as an offensive weapon, but has an important function in the company defense area. Its high mobility and low relief adapt it to the performance of missions on the main line of resistance similar to those of the heavy machine gun.

When a defensive position is occupied at the conclusion of an attack or of an approach march, the light machine guns are located on a base of fire by the company commander and the section assigned sectors of fire covering the front of the position. Fire missions are assigned by the company commander and fire opened on his orders.

When a battalion defense area is organized, the battalion order assigns the location, sector of fire, and final protective line of the light machine guns. No distinction is made between the basic missions assigned light and heavy machine guns covering the main line of resistance. The positions and missions of the light machine guns will not be altered without authority of the battalion commander. (Fig. 29.)

A
B
C
D
E
F


COORDIN
OF LIGHT
WITH HEA
MACHINE GUNS

Mortar emplacements should be

The light machine-gun section occupies and organizes its positions and conducts its fires in the same manner as the heavy machine-gun units. Missions outside the zone of the main line of resistance or which detach the section from its company are not ordinarily assigned to light machine guns.

117. Duties of Light Machine-Gun Section Leader in Combat.—The section leader ordinarily indicates the general position area given him by the company commander, and the squad leaders locate the exact emplacement of the guns and the route of approach thereto.

The section leader directs the fire of the section and assigns targets or sectors of fire as given him by the company commander. He also regulates the movements of the weapons to alternate positions.

The squad leader is charged with fire control and fire discipline, the preparation and occupation of positions, the movement of the squad to designated position areas, intrenchment and camouflage. They open fire at the direction of the section leader and keep him informed as to the ammunition supply.

When the situation does not permit close control by the section leader, he assigns sectors of fire to the squads and releases fire control to the squad leaders. When the squad leader is thrown entirely on his own initiative, he takes his mission from the general defense plan of the company and leads his squad accordingly.

118. Firing Positions.—The light machine guns are assigned missions and positions in the battalion plan of fire in order to coordinate the fires of all heavy and light machine guns of the battalion. The light machine guns are not detached from their companies for the execution of these missions.

The light machine gun positions are selected so as to permit coverage of an assigned sector of fire. Whenever practicable cover in rear of the firing position should be available for the shelter of the gun crews when not firing and to facilitate the supply of ammunition. A clear field of fire over an assigned sector should be available. When alternate positions are selected the cover position should permit of covered access to both positions. Gun positions are separated by sufficient interval to safeguard against both pieces being taken out of action under the burst of the same projectile, ordinarily 30 to 50 yards. They are usually within hailing or arm-and-hand signaling distance. For types of light machine-gun emplacements, see Figs. 30 and 31.

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FIGURE 30

"U" Type Light Machine Gun Emplacement
(Shown without camouflage to illustrate construction)

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FIGURE 31

Three-hole Light Machine-Gun Emplacement
(Shown without camouflage to illustrate construction)

SECTION 6

THE RIFLE COMPANY IN DEFENSE

119. The Rifle Company, Composition and Armament.—The Rifle Company consists of—

a. Company Headquarters.

b. One Weapons Platoon.

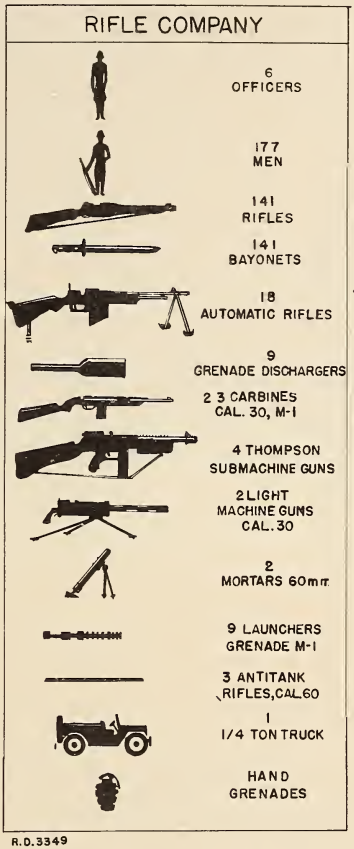
c. Three Rifle Platoons.

The Company Headquarters consists of the Company Commander, usually a Captain, the Executive Officer (second-in-command) usually a First Lieutenant, and twenty-seven enlisted men who assist the company commander in the control, supply and administration of the company. This headquarters is normally divided into two groups:

a. The command group.

b. The supply and administrative group.

The command group consists of those members of the Company Headquarters whom the Company Commander details to personally accompany him or assist in the tactical control of the company, and may include the lieutenant second-in-command, the 1st sergeant, signal corporal, field musics, messengers and signalmen.



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The supply and administrative group consists of those members of the Company Headquarters detailed to take care of administrative detail and supply, such as the Supply Sergeant, clerk, cooks, and those men handling ammunition, water, rations, etc.

The Captain, Lieutenant executive officer, 1st Sergeant and the two Field Musics are armed with the carbine. All others in the Company Headquarters are armed with rifles.

Three caliber .60 antitank rifles are carried in the Company Headquarters and are available for use when needed.

A ¼-ton truck is assigned the company for use as a weapons carrier and for general utility.

The composition and armament of the Weapons Platoon is given in detail in Par. 109.

The composition and armament of the three rifle platoons is given in detail in Par. 88.

120. **General.**—In the defense it is the mission of the rifle company to occupy, organize and defend an area the limits of which are assigned by the higher commander; or, when during the attack the advance of the company is stopped, it defends the terrain it then occupies.

121. **Frontages and Depths.**—The rifle company is capable of making a strong defense on average terrain of an area not exceeding 400 to 600 yards in width and varying in depth from 400 to 600 yards. These limits can in no sense be considered to be absolute, and are to be used merely as guides. Within the maximum limits the width and depth of the position occupied by the company when disposed for defense depends largely upon the terrain. (Fig. 32.) A company in a delaying action may be required to cover a frontage much greater than the above stated limits, however this additional width will necessitate that all units be placed in the front line, with a consequent sacrifice of depth in the position.

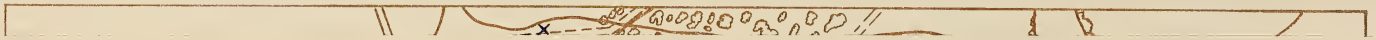


Fig. 32. Rifle Company in Defense

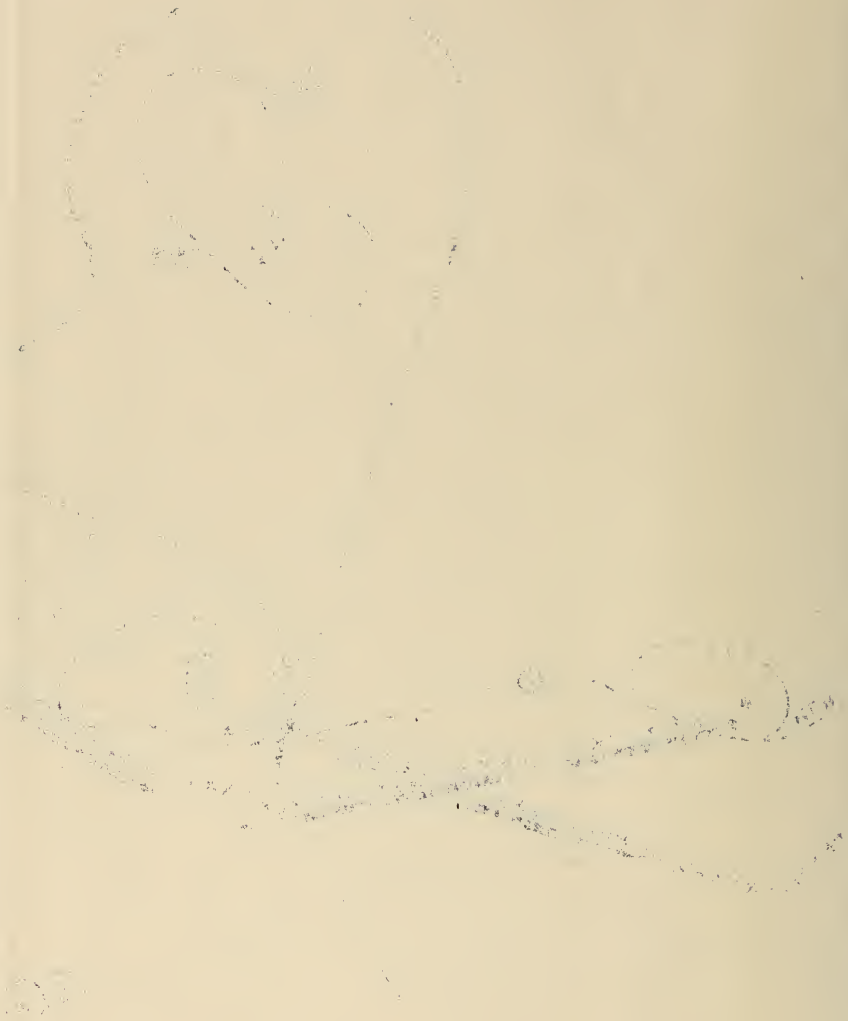
Showing location of Main Line of Resistance, Tactical and Protective Wire, Positions of the 3 Rifle Platoons and the 60mm Mortars, and the Employment of the 2 Light Machine Guns with their sectors of fire and final protective line. (One adjacent platoon defense area is also shown on the right flank with one section of heavy machine guns delivering supporting fire.)

xxxxxxx Tactical Wire

Protective Wire

Sector of fire of Light Machine Gun with Final Protective Line and danger space covered.

60mm Mortars



In close or heavily wooded terrain, where greater reliance must be placed upon the individual and close combat weapons, the frontages must be reduced. This reduction of frontages in woods may vary, depending upon the character of the woods and the degree of visibility.

122. **Assumption of the Defensive.**—The rifle company will assume the defensive upon the order of higher authority, it will assume the defensive temporarily when in the attack its forward progress is stopped by the resistance of the enemy, or when exposed to surprise attack by strong enemy forces. Rarely will the company commander or platoon leader be faced with making a decision to defend. Such order will either be prescribed or will be dictated by circumstances.

The order to the company commander will indicate to him whether the organization of the defensive position is to be deliberate or hasty. In the deliberate organization, ample time is available for thorough reconnaissance and complete coordination of the defensive means. The hasty organization presumes less time to be available for these purposes and imposes upon the company commander a curtailment of his reconnaissance and measures for coordination. This time varies in accordance with the situation.

123. **Procedure in the Deliberate Defensive.**—While no rule can be given as to the specific personnel who accompany the company commander when he goes forward to receive the battalion order for the defense, it is desirable that certain individuals of his command be present later to assist him in making his reconnaissance and in moving his company. In many situations, when directed to report for the defense order, the rifle company commander takes with him the first sergeant, and two or more messengers.

124. **Defense Order.**—The battalion commander's order for the defense will cover, either in its initial form or in subsequent instructions, such of the following items as are known or have been determined:

a. (1) **Information of the enemy**—location; strength (known or estimated); composition; dispositions.

(2) **Information of friendly troops**—location and mission of next higher unit and those on right and left; location and mission of supporting weapons; special support furnished by any unit.

b. **Decision of commander.**—(1) General line to be defended.

(2) Organization of the ground (main line of resistance and extensions, outpost line).

(3) Formation.

(4) Boundaries of sectors occupied by the command (when interior unit) and between subordinate units, limiting points.

c. (1) **Assignment of troops to sectors or defense areas.**—Lines, sectors and extensions; security detachments to be employed; details of fortifications to be constructed, such as priority of work; initial garrisons; conduct of the defense. (Use a separate lettered subparagraph in written orders for each subordinate unit holding one of the subdivisions.)

(2) **Instructions for employment of machine guns, mortars, AA-AT guns, organic or attached.**—General location of weapons and mission (separate subparagraph for each unit).

(3) **Instructions for artillery (if attached).**—Positions; missions; instructions relative to time of opening fire. Preparations for massing fire to support the counter-offensive.

(4) **Reserves.**—Designation of units, commander; positions; degree of readiness; work to be done in organization of position.

(5) Instructions for any troops not otherwise covered.

(6) Instructions for two or more elements of the command. This may include time in which the position will be organized, and conduct of defense, as follows:

(a) Instructions to troops on outpost.

(b) Demolitions and road blocks.

(c) Instructions regarding liaison and local security.

(d) Counterattack—when made; by what units; direction; and by whom they may be ordered.

(e) Instructions for coordination of fires.

(f) Use or restrictions on use of chemicals.

(g) Special instructions for organization of ground; priority of work.

d. Refer to administrative order if issued, otherwise include administrative instructions on—supplies (rations, ammunition, water, and engineer equipment); location of collecting and aid stations; disposition of prisoners; traffic control; disposition of the trains.

e. (1) Instructions to signal communication personnel such as—reference signal communication annex; special instructions.

(2) Command posts—location of issuing unit and of next principal subordinate units.

125. **Operation Map.**—The company commander may receive much of the foregoing information and directions in the form of an operation map or overlay.

126. **Initial Steps Upon Receipt of Defense Order.**—Upon receipt of the battalion commander's defense order, the rifle company commander will immediately arrange to meet his subordinate commanders at a convenient time and place in order to issue his own orders for the defense, and will take such steps as may be necessary to get his company to the position should it not already have arrived in the locality. He should utilize the services of his first sergeant and frequently a messenger to assist in accomplishing these purposes.

127. **Tentative Plan—Plan of Reconnaissance.**—Having dispatched his first sergeant and messenger to guide the company and the subordinate unit commanders, respectively, to the designated places, the company commander studies his map or sketch, and makes a comparison with the ground which is visible. From this map study the company commander makes a tentative plan of defense and a plan of ground reconnaissance.

128. **Ground Reconnaissance.**—The company commander, accompanied by such messengers as remain with him, will next make a detailed reconnaissance of the ground. In general, this reconnaissance is made for the purpose of locating the platoon defense areas, and determining the measures to be taken in providing local security for the company position. The factors which influence and affect these locations, and which the company commander examines in detail are:

a. The approaches available to an attacker, and their relative danger to the defense of the position.

b. The tactical localities from which the approaches may be blocked by fire. At each tactical locality:

(1) The nature of the fields of fire.

(2) Available cover and concealment.

(3) Available routes from the rear.

(4) The degree to which the ground in the vicinity may block the advance of mechanized vehicles, and the possibilities for readily providing antimechanized obstacles.

c. The nature of the ground in front of the position as it effects the strength and location of local security detachments.

d. The positions on the ground of boundaries and limiting points.

e. The visible tactical localities within adjacent sectors.

f. Defiladed areas suitable for the emplacement of the 60mm mortars.

g. The positions on the ground of machine guns to be placed within the company sector, and the sectors of fire from these guns if known.

h. The positions on the ground of antitank guns to be placed within the company sector.

i. The indicated location of artillery and battalion mortar fires to be placed in defense of the company sector.

129. Completion of Plan.—Having completed his ground reconnaissance the company commander will proceed to the place at which he is to meet his subordinate unit commanders. At that point he will complete his plan for the defense of the sector, plotting his proposed dispositions on his map or sketch, and will make such notes as may be necessary to assist him in issuing his defense order.

130. Company Defense Order.—When ready to issue his defense order, the company commander will assemble his subordinate unit commanders at a convenient place which overlooks the company's position. He will orient them and require them to make notes. His order will cover as much as is known or determined of the following items:

a. The direction from which the enemy may be expected to attack, and the hour after which an attack may be expected.

b. Information concerning supporting troops and adjacent units, and so much of the battalion plan and the plan for supporting fires as may be of interest to platoon commanders.

c. The mission of the company; that is, to defend the assigned sector; the boundaries and limiting points affecting the company dispositions.

d. The assignment of definite areas and missions to each platoon and to the supporting weapons groups retained under company control; provisions for the coordination of fires between platoons and adjacent units.

e. Provisions for local security.

f. Priority of work.

g. Arrangements for issue of engineer tools and materials, and any other administrative details which may be known and pertinent.

h. Position of the company command post and of such platoon command posts as may be prescribed by the company commander.

131. Procedure in the Hasty Defense.—a. When the hasty defense is assumed the defense will differ from that prescribed in paragraph 122 as may be necessary by reason of lack of time. These differences will be manifested in one or more of the following ways:

(1) The orders of all commanders will be to a great extent fragmentary, and frequently in the form of messages which may or may not be accompanied by rough sketches or overlays.

(2) Boundaries and limiting points may not be accurately determined.

(3) Positions and sectors of fire of machine guns and location for artillery barrages and normal defensive concentrations of supporting mortars frequently will be undetermined prior to the time the rifle company actually organizes its position.

(4) Detailed reconnaissance will be curtailed, and may consist only of a hasty examination of such parts of the area as are visible from a single observation point.

(5) Coordination between adjacent units and with supporting weapons frequently must be deferred until after the troops are actually on the position.

(6) Organization of the ground will often consist only of such work as the troops can accomplish in a limited time, using such equipment as is carried on the person.

b. No matter how hurriedly the defense is initiated it must be based on a plan, incomplete though the plan may be. Following initial occupation of the position by his troops, the company commander will continue to study the situation and the terrain and make such early readjustments as are required in order to avoid unnecessary work. He will take advantage of lulls in the fight, fog, or darkness to make adjustments directed toward eventual complete coordination of the defense.

132. The Plan of Defense.—a. **General.**—The front-line rifle company commander's plan of defense must envisage:

(1) Prompt discovering of the enemy's attack.

(2) Stopping or disorganizing the attack by fire before it reaches the main line of resistance.

(3) In case the enemy's attack reaches or penetrates the main line of resistance, the blocking of his further progress, or ejecting the enemy by counterattack, either by his company support, or by other troops supported by the fires of his company.

133. Local Security.—a. Irrespective of security measures provided by higher commanders, front-line rifle companies habitually protect themselves against surprise by establishing local security. It is the mission of the company local security to observe for the approach of the enemy, and to give timely warning of his advance. A local security detachment will fire on the enemy for the purpose of driving off small hostile patrols, giving warning, and protecting itself. It withdraws to the battle positions after giving warning of the enemy's position.

b. The company commander posts the company local security detachment in a locality from which it can observe the company sector in the direction of the enemy. This locality should seldom be farther than 600 yards from the main line of resistance. The local security detachment or detachments should be detailed from the support and will vary in strength from four men to two squads. When the terrain does not permit observation of the company sector from a single locality, the commander will direct front-line platoons to furnish local security for their respective positions. In either case, one or more sentry posts are established; in the first instance by the detachment, and in the second by the platoons. During fog or darkness local security is habitually sent out by the platoons. These security detachments should be relieved at about two hour intervals to insure proper vigilance.

134. Exterior Defense of the Company Position.—a. **General.**—It is to be expected that the weapons of higher echelons (artillery, battalion mortars, machine guns) will engage the attacker at long range. The weapons of the front-line rifle companies will commence their fires as soon as remunerative targets are discovered within the effective ranges of the various weapons of the company. Unless otherwise directed, rifle fire is opened upon orders of the platoon commanders. When specifically directed, or when insufficiency of ammunition makes such action necessary, all rifle company weapons may be required to withhold their fires until there is a direct threat against the battle position within the effective range of the company weapons.

135. Siting of Weapons.—a. **Types of weapons.**—The rifle company commander has at his disposal three types of weapons, namely: high angle fire weapons represented by 60mm mortars and grenades; flat trajectory weapons represented by light machine guns, automatic rifles and rifles; and shock action weapons consisting of bayonets, carbines and pistols. These types can be further classified as mid and close range weapons (rifles) and close combat weapons (grenades, bayonets, carbines and pistols). Except in dense woods or otherwise where observation or fields of fire are restricted, the company will be disposed to make the most effective use of the mid and close range weapons. (Fig. 33.) The rifles and automatic rifles will be employed to supplement and thicken the fires of machine guns. In addition they will be sited to protect machine guns against hostile assault and to safeguard any other supporting weapons placed in the company's defensive area.

FIG. 3
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b. In deciding upon the locations, strength and garrisons of the platoon defense areas to be organized along the main line of resistance, the company commander is guided by the missions to be assigned each platoon. These missions will include all or part of the following:

(1) Blocking by fire the approaches to the company position.

(2) Protection of machine guns, antitank guns and mortars in the vicinity.

(3) Covering dead spaces not covered by supporting weapons.

(4) Providing mutual support by fire between adjacent units not only within the company, but also with adjacent companies.

136. Interior Defense of the Position.—a. **Depth.**—The organization in depth will ordinarily commence with the front-line rifle company. The company commander assigns sections of the company defense area to his rifle platoons and points out the exact course of the main line of resistance to the rifle platoon leaders. He usually reinforces each rifle platoon with an additional automatic rifle and frequently with a light mortar. He prescribes the intrenchments to be constructed, makes allotment of special tasks, fixes priorities and indicates the time available. He fixes the conditions for opening fire and for calling for final protective fires (light signal). Where necessary, he details security detachments for flank protection on the boundary of his defensive area. He confers with commanders of heavy machine-gun units and gives rifle platoon leaders the necessary instructions for covering gaps in the bands of machine-gun fire. (The positions and sector of fire of the light machine guns are prescribed by the battalion commander and will not be altered without his authority.)

Long-range fires are executed by the heavy weapons. Premature opening of fire by rifle companies discloses the defensive dispositions and exposes the troops holding the main position to the annihilating fire of the hostile artillery.

137. Support Platoon.—Depending upon the terrain, the mission, and the width of the sector to be defended, the company usually will dispose the equivalent of at least one platoon in rear of the main line of resistance. Such a unit is called a Support Platoon. Whether support platoons are held mobile for counterattack or employed to deepen the area defense depends principally upon the nature of the terrain of the company defense area. In either case, support platoons are disposed so as best to insure the flank protection and antiaircraft defense of the combat echelon and deal with hostile elements penetrating the main line of resistance. When support platoons are employed to deepen the zone of resistance, squads

are emplaced in a general checkerboard disposition with respect to those in the leading echelon, with a view to flanking platoons or squad groups of the leading echelon and covering the intervals between them. They are also prepared to cover the flanks of the company against flank attack. (Fig. 33.) For the execution of these various missions, the selection of alternate emplacements is generally necessary. A platoon held mobile for a counterattack mission is posted under cover beyond the zone of dispersion of artillery fire directed on the leading echelon. Pursuant to the instructions of the company commander, the platoon leader prepares plans of action and selects departure positions for counterattack under various assumptions as to possible penetrations of the leading echelon.

138. **Outposts.**—The company commander details combat outposts and fixes their day and night locations in accordance with the battalion commander's order. He prescribes their conduct in case of attack and fixes their lines of withdrawal. He informs platoon leaders and adjacent units as to their location. He details patrols for the night exploration of the foreground of his sector. He coordinates the illumination of the foreground with their activity. He makes periodic reports of his dispositions to the battalion commander.

139. **Antiaircraft and Antitank Warning Posts.**—The company commander establishes antiaircraft and antitank warning posts within or serving his company defense area, and makes known the warning signals to his platoon leaders. He will also specify what personnel will be detailed to occupy these posts and from which platoons they are to be furnished.

140. **Company Command Post.**—a. In his order the battalion commander frequently will designate the general location of the company command post. If he does not so designate it, he will direct that its location be reported. In the first case the company commander will select its site in the general location prescribed. In the second case he is at liberty to select a site within the company defensive area.

b. A sheltered position is chosen, such as a ditch or ravine, or an easily located point in woods, where the command post personnel will be protected from enemy small arms fire, and concealed from discovery by enemy patrols and air observers. Ordinarily the paramount considerations of control and of accessibility to the elements of the company, cause it to be placed in the rear part of the company defensive area and in close proximity to the company support.

c. Command post personnel will ordinarily consist of the second-in-command, the first sergeant, the company messengers, less one messenger (field music) on duty at the battalion command post or at the company observation post, and the messengers from the platoons.

141. Company Observation Post.—a. The company observation post should be established relatively close to the command post. The observation post should afford a view of the company defensive area or the greater portion of it, and the ground to the front as far as the position of the company local security. Cover and concealment are desirable, as discovery by the enemy will draw early fire. If there is no natural protected route to the command post, a covered approach should be dug.

b. The observation post is manned initially by signalmen and messengers. While the defensive battle is in progress, and while not visiting his units or away on other duty, the company commander will station himself at the observation post. He will have at least one additional messenger with him.

142. Priority of Work.—a. Ordinarily the priority of work on the position will be prescribed by the higher commander, and will be communicated to the rifle company commander in the battalion commander's defense order. So much of this priority as is applicable to the rifle company will be repeated in the rifle company commander's defense order.

b. When no priority of work is prescribed in the battalion commander's order, the rifle company commander will prescribe the priority of the work to be undertaken by his units. This priority will always prescribe the clearing of fields of fire, and the preparation and camouflage of individual fox-holes, and of shallow communicating trenches. Depending upon the needs of the situation and the time available, the priority may prescribe also the construction and camouflage of supplementary rifle squad positions, erection of wire entanglements, and the improvement of natural antitank barriers.

143. Reserve Company.—As the battalion reserve company will be disposed for the close defense of the battalion key point (the battalion keypoint is that commanding ground within the battalion defensive area which gives to the defender both observation and field of fire over the remainder of the battalion sector), its dispositions may be prescribed in greater detail by the battalion commander than those of a front-line company. In general, the plan of defense of a reserve company will differ from that of a front-line company in the following particulars:

a. Except for one or more sentinels or observers local security will not be required. However, the company may be required to furnish a combat outpost in front of the battalion position.

b. The reserve company frequently will be employed initially in placing wire and antitank mines and extending or improving natural obstacles to mechanized attack.

c. Weapons may be disposed to support the defense of the forward area by firing into the intervals between the platoon defense areas of front-line companies.

d. Supporting weapons and platoons will be sited to block approaches from the flanks and rear of the battalion keypoint.

e. Should the reserve company be assigned a position on a reverse slope it organizes the position similar to that of a reserve company on a forward slope. While the company may be assembled in a protected area following the organization of the position, it should occupy its prepared position when the hostile attack develops.

f. Whether the reserve company is assigned a position on a reverse or forward slope, it always prepares plans for counterattacks to restore the main line of resistance. Directions to prepare counterattack plans usually will be prescribed in the battalion defense order. If not so prescribed the reserve company commander on his own initiative will prepare plans for such counterattacks. The company may be held mobile for counterattack. The company commander then assigns positions in readiness under cover from fire and observation to rifle platoons. He prepares plans of action under various assumptions of hostile penetration of the principal zone of resistance and assigns alternative assembly positions to his platoons. Where practicable, he locates provisional bases of fire to support the counterattacks. Light machine guns are usually assigned positions on the flanks of the assembly positions of the rifle platoons for the support of prospective counterattacks. Where, as the result of terrain conditions, it appears necessary to distribute the rifle platoons over the battalion defense area with wide intervals between the platoons, the best position for the light machine guns is frequently in the interval. In this case the 60mm mortar squads are frequently attached to rifle platoons; in other situations they are held under the immediate direction of the company commander.

g. It is to be expected that details from the reserve company will normally be used for additional labor purposes such as carrying parties for ammunition, food and other supply items. Other normal uses of the reserve company are to erect tactical obstacles (wire) in front of the battalion position to supplement the work of the engineers in maintaining communication routes within the battalion position, and to perform other necessary tasks of a like nature. Such employment of members of the reserve company imposes upon the reserve company commander the additional mission of maintaining liaison with and control over such details in order that the reserve company may immediately occupy and defend its assigned area, or carry out any other plan allotted in the battalion scheme of defense.

144. Supply of Ammunition.—a. Usually, battalion or higher orders will prescribe that the initial supply of extra ammunition shall be dumped on the position. Each company commander and platoon commander will exercise careful control of the distribution of such ammunition, alloting to the elements of his command sufficient for their probable needs. During battle the supply of ammunition to combat groups on the main line of resistance may be difficult and hazardous. Such groups should be required to maintain upon position an adequate stowed ammunition reserve under the control of the platoon commander. Expenditures are replaced at night or as opportunity allows.

b. The company commander must at all times know the status of ammunition within his company and within its subdivisions, and he should require his platoon commanders to inspect and report concerning the ammunition on hand within their own units. The ammunition of evacuated casualties is normally left on the position. The platoon commander must inspect to see that all rifle belts and automatic rifle magazines are filled and that all extra ammunition on position is stowed as to be protected from weather and is available for immediate use.

145. Food and Water.—The supply of food and water to his men will present a difficult problem to the company commander, the solution of which will require ingenuity and resolution. The morale of troops decreases as their thirst and hunger increases, and the resisting power of men with low morale is slight. The administrative duties of the company commander and the platoon leader include making provisions for an adequate supply of water for each individual of the company and combat group and arrangements for the feeding of all men. Whether the food is obtained from the company kitchen or from further to the rear makes little difference in feeding. The task of the company commander is to find out when and where food and water will be available to his company, and to disseminate this information to his platoon leaders in the form of orders as to when, where, and how the company will be messed. It is the platoon leader's task to disseminate this information to his men and make the necessary details to insure that the order of the company commander is carried out. Against an active enemy whose air force is comparable to our own, it will probably be best to use carrying parties to bring all food and water forward during the hours of darkness. The carrying parties meet the truck, obtain the food in the rear area, eat their own meal, fill the canteens of the company and then bring forward the filled canteens and the food containers for the remainder of the platoon. A cold lunch is usually issued with the hot breakfast to avoid daylight distribution. Containers are returned as soon as empty.

146. **Delaying Action.**—Delaying action is executed through the occupation of successive defensive positions preferably covered by an antitank obstacle and affording long field of fire with a view to arresting or delaying a hostile advance for a more or less determinate period. The company generally holds a wide front. Platoon leaders exercise a wide degree of initiative. Light mortars are usually attached to rifle platoons. The company commander retains control over the light machine guns.

The automatic rifles carry the burden of the fire fight of the rifle platoons. They open fire at long-range.

One rifle platoon, in second echelon, usually occupies the position selected for the next line of resistance or an intermediate position between two successive lines of resistance.

The withdrawal of the combat echelon is preferably effected successively by platoons. The company commander uses his light machine guns to cover the gap created by the withdrawal of a platoon usually from positions behind a remaining platoon. They withdraw in time to occupy positions for the support of the withdrawal of the last rifle element.

Heavy (cal. .30) machine guns and battalion antitank weapons are frequently attached to rifle companies to support their withdrawal. The caliber .30 machine guns carry on the long-range combat from positions in rear of the rifle company. The antitank weapons open fire at the earliest moment and promises effect against the type of hostile tank employed.

The company commander regulates the withdrawal of the rifle platoons either by fixing the hour of withdrawal or by specifying the line to be reached by hostile forces before the withdrawal commences. He coordinates the withdrawal of the light and heavy machine guns with that of the rifle platoons so as to assure continuous fire support and covering fire.

Operations in withdrawal observe, as nearly as practicable, the following sequence:

(a) Establishment of a rifle platoon in second echelon on next position of resistance.

(b) Withdrawal of one platoon of the combat echelon.

(c) Withdrawal of heavy machine guns on carts.

(d) Withdrawal of light machine guns and light mortars.

(e) Withdrawal of rifle squads of last platoon, the antitank weapons, and the automatic rifle squads.

On open terrain, the automatic weapons are the principal fire agencies of withdrawing forces. The rifle squads are held under cover. They are utilized for flank protection

and to furnish reconnoitering patrols and combat outposts where required. In wooded or close terrain or in fog, they form the principal fire elements of the company.

The company commander institutes early reconnaissance of successive positions and routes of withdrawal.

147. **Support of an Outpost.**—A rifle company detailed as support of an outpost is assigned a section of the outpost line of resistance and a sector of surveillance. The position to be occupied by the company is also sometimes specified. Within its assigned section, the company organizes a company defense area and covers the unoccupied interval of its section with the flanking fire of its light machine guns. Attached heavy machine guns are emplaced for long-range fire of the approaches to the position. They are assigned alternate positions for reinforcing the flanking fire of the light machine guns. Attached antitank weapons are sited to cover the most probable routes of tank approach.

The company covers its front with outguards and patrols. Outguards, not exceeding the strength of one squad, occupy day positions, usually within 400 yards of the forward limits of the company defense area, affording the most extensive views over the foreground of the outpost position; at night they are posted so as to cover the most probable routes of hostile advance. Stronger outguards (detached posts) are detailed to hold more distance features such as stream crossings, villages, important road junctions. Communication with adjacent supports and between outguards is maintained by means of visiting patrols. Patrols are also dispatched for daylight observation from commanding terrain beyond the vision of outguards on the outpost line of observation.

The company covers the unoccupied interval of its section of the outpost position wherever practicable by obstacles. Intensive night patrolling of gaps is essential. The effectiveness of observation of the foreground and the interior of the position may be increased by illumination where it is not important to conceal the presence of the troops in the locality or the location of the outpost.

The combat of the company takes place in accordance with the procedure prescribed for the defensive action of a company holding a wide front.

A support company moves to its assigned area with due provision for security. It conceals its movement as far as practicable from air and ground observation. A march outpost covers the initial installation of the company on its support position until its definite dispositions have been made.

In the prolonged occupation of a position, the dispositions and conduct of a front-line company may approach those prescribed for security in position defense.

148. **Security in Position Defense.**—Prolonged occupations of defensive positions permit the development of a highly organized service of security and observation. The organization of this service may comprise: guard service of the position; observation posts; night patrols in front of the accessory defenses; snipers' posts.

149. **Guard Service.**—The front-line platoons are the principal agencies of the guard service of the position. They furnish sentry posts and outguards. Units in rearward echelons establish such sentries as are necessary to insure their own readiness for action. At least one sentry for each shelter is posted.

a. One officer in each company and one noncommissioned officer in each platoon are constantly on duty. They are responsible to their respective commanders for the service of security of their units. They make frequent inspections to assure themselves of the vigilance of the sentries and observers and their proper instruction.

b. The noncommissioned officer on guard insures that sentries are alert with rifles loaded and that gas-alarm apparatus is in readiness. He verifies the orders which sentries transmit to each other. He informs them concerning the time of departure and return of patrols and their itinerary. He verifies the condition of loopholes. He is provided with means of artificial illumination and fires it if suspicious noises are heard. He reports to the officer on duty and to his platoon leader all incidents of his tour and the arrival of a superior officer.

c. Sentries may be posted directly from the first-line platoons by the noncommissioned officer on guard or by the leader of an outguard. Each sentry must be informed as to the location of his platoon leader and that of the sentries on each side of him and as to whether there are friendly patrols or working parties in front. All sentries are instructed as to the method of giving the gas alarm or tank alarm. At night sentries are posted at the entrance to all shelters to arouse the occupants in case of attack. They are similarly posted during a hostile bombardment to give warning when the enemy debouches for attack. Sentries make as little noise as possible in challenging and advancing parties. During the day they observe through loopholes or by means of a periscope; at night they observe over the parapet. Listening posts are advanced sentry posts (usually four men) established at night to warn the front-line platoons of the approach of hostile raiding or attacking parties. They fall back after giving the alarm. Sentries are relieved every 2 hours except under unusual conditions. A larger number of sentries is required at night than during the day. The primary duty of sentries is to insure the readiness of the command in case of attack.

150. Observation.—a. Each platoon and company conducts intensive observation to gather information relative to the enemy and to give prompt alarm in case of attack. Each commander establishes an observation post near his command post and when necessary locates other posts so as to insure that the entire sector of the unit is under continuous observation.

b. Observation posts are not located near conspicuous points of the terrain. The posts and the passages leading to them are carefully concealed and camouflaged. Men are prohibited from walking about in their vicinity. The formation of paths converging at a post are particularly avoided.

c. Each platoon usually employs 4 to 6 men as observers. They alternate on duty to insure continuity of observation.

(1) The observer should be particularly on the lookout in respect to—

Location of hostile automatic weapons or mortars.
Enemy sentries and snipers or points where the enemy indicates his presence.
Hostile observation posts, loopholes, occupied areas, dugouts, new wire, gaps in wire, tracks of patrols through wire.
Indications of location of antitank mines.
Mining: signs of soil excavated and materials carried.

(2) Patient, attentive observation always gives valuable information about the enemy's customs. The least change in the enemy lines or dispositions are reported to the officer or noncommissioned officer on duty.

(3) In case of attack the observers give the alarm by the means at hand. Observers in rearward echelons repeat signals from the front line.

151. Night Patrols.—a. Observation is supplemented during the night by the reconnaissance of patrols detailed by the company or battalion commander. The missions of night patrols may be to gain information, to capture prisoners, or to harass the enemy. Such patrols are always assigned a definite mission. The officer sending out the patrol determines the time and point at which it leaves the lines, the route, and the probable time of return.

b. Night patrolling is systematically organized. For troops just commencing the occupation of a stabilized sector the reconnaissance should embrace: The accessory defenses in front of the position; shell craters and old trenches between the position and that of the enemy; and the hostile wire and listening posts.

(1) Reconnaissance of our own wire is carried out to ascertain its condition and to locate gaps for the purpose of entry and exit.

(2) Shell craters and old trenches are next reconnoitered to determine whether they are occupied by the enemy and if so, the strength of the post, the state of wire protection, and the practicability of raiding the post.

(3) Reconnaissance of the hostile wire usually seeks to determine—

Strength, height, depth, thickness, or density of wire, nature of construction and number of bands.
Distance from inner band to hostile front line; distance between bands of wire.
Gaps, location, width, whether left purposely by enemy or cut by friendly fire.
Effect of our recent gun or mortar fire.
Location and nature of antitank mines.

152. Sniping.—a. Fire for the purpose of wearing the enemy down is organized by company and platoon commanders. In the execution of harassing fire, observers and snipers frequently work together, the observer indicating the targets discovered to the sniper and observing the results of his fire. Sniping posts are located and sectors of fire assigned to each post so that the entire front is covered.

b. Sniping fire is usually delivered from specially constructed posts. Concealment is the most important element in the construction of the posts and may be attained by the adaptation of various objects, such as an old boot with a loophole cut in the heel, spool of barbed wire, a dummy sandbag, or tree stump. Background is given careful consideration. A curtain is provided for darkening the entrance.

c. Snipers are protected by the use of camouflaged clothing and disguises improvised by using grass or leaves, smearing the hands, face, and equipment to harmonize with surroundings.

d. Smoking is prohibited in the post; glittering objects are kept out of sight; the rifle barrel does not protrude far beyond the loophole; and care is taken that the muzzle blast does not kick up dust and betray the location of the firer.

e. Targets are usually most numerous at dusk or in the early morning. The sniper is at a disadvantage if facing the sun. If possible he selects the time for firing when the light is full on the ground where the targets are expected and he himself is in a comparatively bad light.

f. Provision is made for night sniping. The rifle may be laid and clamped on selected objectives (gaps in the hostile wire which probably will be repaired at night, loopholes,

entrances to shelters, exposed points in approach trenches, machine guns spotted by their flashes). Provision is made for night firing with the rifle not clamped by the improvisation of a visible line of sights or the use of telescopic sights. With a bright moon, effective fire at a range of 200 yards can be delivered with the telescopic sight. A line of sight may be improvised by attaching a piece of white cotton to the front sight and a strip of white tape along the barrel from the front to rear sight, and by pasting to the rear sight a piece of white cardboard with a hole punched in the center. An effective range of 30 to 50 yards may be obtained by using these aids.

g. Sniping fire may be used in conjunction with the operation of patrols to distract the attention of hostile sentries at the point to be reconnoitered.

h. To draw targets or locate hostile snipers, some sort of decoy may be successfully employed. Effort should be made to locate the direction from which the hostile sniping comes. Any casualty from rifle fire should be reported and investigated and special efforts made to locate the hostile snipers.

SECTION 7

THE AA-AT PLATOON, WEAPONS COMPANY, INFANTRY BATTALION, IN DEFENSE

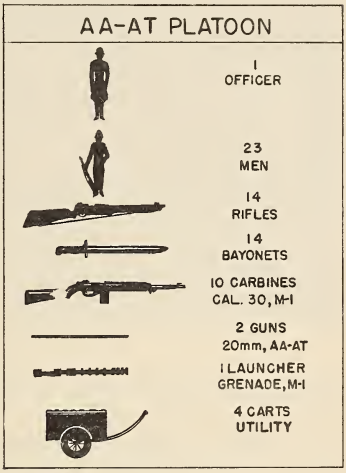
153. The AA-AT Platoon, Weapons Company, Infantry Battalion, Composition and Armament.—The AA-AT Platoon is a unit of the Weapons Company of the Infantry Battalion and consists of—

a. A Platoon Headquarters.

b. 2 20mm AA-AT Gun Squads.

c. 1 Ammunition Squad.

The Platoon Headquarters consists of a Lieutenant Platoon Leader, a Platoon Sergeant second-in-command, a Sergeant observer and 2 privates who serve as messengers and signalmen. The privates are armed with the rifle and the others with the pistol or carbine.



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The Gun Squad has a Corporal as Squad Leader, a gunner, an assistant gunner and an extra private, with such additional personnel from the Ammunition Squad as may be detailed. The Corporal and Gunners are armed with the pistol or carbine and the others with the rifle. (Fig. 34.)

FIGURE 34
The Antitank Squad (cal. .50 machine gun with antitank mount only)

The Ammunition Squad consists of a Corporal Squad Leader and 10 privates who handle the ammunition and other supplies of the platoon. Men from this squad may be detailed to assist with the handling of the guns.

While the current Tables of Organization call for a 20mm AA-AT gun for each squad, at this writing this type piece has not been issued. In its place each squad has a cal. .50 Machine-Gun with antitank mount only, making it necessary to depend upon the cal. .30 heavy machine guns of the Machine Gun Platoons for anti-aircraft defense. The Platoon, therefore, must function as an antitank platoon only until the dual purpose 20mm gun is furnished.

154. General.—The AA-AT Platoon is included in the composition of the Weapons Company for the purposes of supply, administration and technical training only. The tactical missions of the platoon are assigned by the battalion commander and are executed under his immediate direction or of the commander of the unit at whose disposition it may be placed by the battalion commander.

155. Characteristics and Missions.—The battalion antitank weapons (cal. .50 machine gun) has the following characteristics:*

a. High initial velocity.

b. Adequate armor penetration at close and midrange.

c. High rate of fire.

d. High mobility and low relief relative to other antitank weapons, permitting movement by manhandling for considerable distances and facilitating unobstrusive occupation of firing position; weapon and crew occupy a small area and are easily concealed.

The characteristics of this weapon indicate employment in close proximity to the troops to be defended. It employs direct fire and engages ground targets only. It will frequently be the principal reliance of the troops for immediate antitank security.

Three men are required to keep one weapon in operation. All members of the squad are trained to handle the weapon and replacements of casualties is automatic.

The Platoon leader functions under the company commander until detached by assignment of a tactical mission by the battalion commander. Further coordination by the company commander is limited to arrangements for rationing and other administrative matters.

In combat, the platoon leader, whenever practicable, assigns sectors of fire and firing position areas; where extensive fronts must be covered he assigns the guns missions of providing antitank security for designated rifle companies.

In combat, the squad leader may exercise the functions of fire control in all cases where the squad is assigned a sector of fire or the protection of a designated rifle company by the platoon leader. When the platoon leader assigns each gun a sector of fire, the platoon sergeant supervises the operation of both squads, if practicable, or accompanies the squad assigned the most important or most difficult mission.

The squad leader is responsible for the execution of the fire orders of the platoon leader and the fire discipline of the squad. When assigned an approximate position by the platoon leader, he fixes the exact location and directs the preparation and occupation of the gun position, camouflage and intrenchment where required, and the movement of the gun into position. Before beginning the construction of an emplacement, he places the gun in an emergency firing position, prepared to cover the assigned sector of fire. He details

*NOTE: The status of developments in the design of antitank weapons of the lighter class makes it impracticable to give more than the general characteristics of the battalion weapon at this writing.

one member of the squad to maintain surveillance over his fire sector and to man the gun if emergency requires. Upon completion of the preparation of the emplacement and clearing of the field of fire, the corporal causes the gun to be mounted for the execution of its assigned mission.

156. Antitank Positions.—The mission of the antitank guns in defense being the protection of the battalion defense area against enemy tanks, the guns are sited to take tank attack under fire before it reaches the main line of resistance. There being only two guns, they are not distributed in depth, but are placed on or close to the main line of resistance. They are sited in pairs and are mutually supporting. Rifle or machine-gun units are assigned to protect the guns. When employed in pairs, each piece is so emplaced as to cover the sector assigned to the other in addition to its own. In view of their limitation to close and midrange missions they should, when practicable, be emplaced near the center of the sector of fire. (Fig. 35.)

A
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CAL. .5
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RD 3251 (1)
CAL. .50 ANTITANK GUN POSITIONS
FIGURE 35
RD 3349
Yards
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81
81
RD 3349

The requirements of a good position are:

a. Good field of fire. It is desirable for the field of fire to extend up to the effective range of the gun.

b. Proximity to defilade and concealment of gun and crew.

c. Commanding ground with wide sector of fire.

d. Covered routes of approach for the occupation of the position.

The antitank guns may occupy primary, alternate, or supplementary positions.

A primary position is the position initially occupied and from which the mission can best be accomplished.

An alternate position is a position having the same field of fire as the primary position but located at a sufficient distance from the primary position to avoid artillery fire directed at that position. An alternate position should be at least 50 yards from the primary position.

The limited number of antitank guns available for the defense of the battalion area makes it necessary to select supplementary positions. A supplementary position is one from which a mission can be executed that cannot be executed from the primary position. A supplementary position should be as close to the primary position as the terrain permits.

Alternate and supplementary positions should be selected by the platoon leader, but if they are not selected by him they will be selected by the squad leader. Movement to the alternate position is caused by an emergency, and the leader at the gun position must decide when the movement is to be made. Movement to supplementary positions is made on orders of the platoon leader.

The gun emplacements should be separated by sufficient distance to insure against simultaneous destruction by a single projectile but close enough in each section to permit of effective control by the platoon leader. Movement to alternate positions is usually impracticable during hostile attack. Alternate emplacements are necessary in the prolonged occupation of a defensive position to avoid early identification and annihilation by the enemy's preparatory fires. Where the weapons have been firing from primary emplacements, advantage is taken of lulls in the hostile attack to move to alternate positions.

157. Selection of Position.—The antitank guns should be placed in positions from which they can protect the main line of resistance from mechanized attacks. However, due to difficulty of emplacing and concealing the gun in position and the unquestionable fact that the enemy will make every effort to locate and destroy every antitank weapon before a tank attack, these should not be placed in the forward areas unless

cover and concealment is available. When employed on favorable terrain in this vicinity their fire will still be effective in front of the main line of resistance. The most effective range of an antitank gun is from 600 yards down.

158. **Reconnaissance for Antitank Positions.**—A thorough reconnaissance of the entire battalion defense area should be made by the AA-AT platoon leader before assigning primary and alternate positions for his weapons. This reconnaissance will be found to be invaluable not only for selecting the best positions but also for eliminating those areas where the terrain is such as to preclude tank employment.

159. **Coordination of Antitank Defense.**—When antitank positions have been selected by the platoon leader and approved by the battalion commander, the guns are emplaced and sectors of fire staked out. The locations of the guns, with their sectors of fire, are then recorded on an overlay or map turned in to Bn-3, who places the information on his situation map, thus consolidating it into the antimechanized defense plan.

(The entire regimental antimechanized defense plan will coordinate the actions of the antitank rifles, the cal. .50 machine guns or 20mm AA-AT guns, the 37mm antitank guns and the 75mm antitank guns. These weapons will be disposed in depth generally in the order stated.)

The battalion commander will normally inform the AA-AT platoon leader which of the possible avenues of a mechanized approach must be covered by the fire of the antitank guns, and of the most probable direction of enemy tank attack.

When there are not sufficient antitank weapons available to cover the entire battalion sector, the battalion commander must decide where he wants his antitank protection. In such cases a choice must be made between two methods:

a. Cover the most probable avenue of hostile tank approach; or

b. Protect the most important defensive installation or key point.

160. **Methods of Strengthening the Antitank Defense.**—Although only two antitank guns are available for use in an entire battalion defense area, thought and careful planning may greatly enhance the natural strength of the defense. A few examples are given below:

a. When two companies are employed on the main line of resistance and the terrain in front and on the flank of one of the companies is such as to preclude tank operations in that area, the guns can be placed in the other company defense area, thereby increasing the density of the antitank defense in the vulnerable area.

b. Some natural avenues of hostile tank approach may be eliminated entirely by the judicious use of land mines, artificial obstacles, tank traps, and standing artillery barrages.

c. Where all of the terrain in the vicinity of the battalion area is suitable for tank operations, an attempt can be made to canalize the hostile tank attack. By this is meant the blocking of most of the tank approaches by means of tank traps, mines, barriers, obstacles, and standing barrages, thus forcing the hostile tanks to attack through one or two relatively narrow corridors. When this method is used, the antitank weapons are so emplaced that the bulk of their fires cover these artificially formed narrow avenues of approach.

While only a limited amount of obstacle construction could be accomplished by the personnel of the AA-AT Platoon, the platoon leader should be prepared to recommend to the Battalion Commander the location of mine fields and obstacles and the fires necessary to cover them.

161. Action Preceding and During Hostile Attack.—Prior to the hostile attack the state of readiness for the gun may be as follows:

a. In position ready to fire instantly.

b. In a position of readiness near a prepared position. The gun is prepared for firing, but held in defilade under cover ready to be moved to the prepared position.

Usually the antitank guns within the battalion defense area will be placed in sight defilade in their positions ready to fire. The guns may be held in a position of readiness concealed within a few yards of their firing positions. These methods are dictated by the rapidity of the development of a tank attack; and the probability that the tank attack will reach the forward gun positions before the guns can be moved any appreciable distance and be prepared to fire. To be most effective the antitank guns should be able to engage the tanks at all ranges under 600 yards. In the average situation the attacking tank unit will usually not be seen and may not be heard until within 600 yards. Under these conditions it is better to have the forward guns in position lightly camouflaged; rather than to attempt to employ the methods of mobile antitank support used by higher units.

In order to avoid disclosing the positions of the guns they remain silent until suitable targets appear within effective range, then they open with rapid continuous fire until the hostile vehicles are destroyed or withdraw. Then immediate movement to cover in the vicinity of an alternate position is recommended, because once the antitank guns open fire they will draw enemy fire.

Employment at night is limited both for the cal. .50 machine guns and their targets. Being direct fire weapons, fire depends upon visibility; likewise, tanks must have visibility to operate successfully.

162. Fire Direction and Control.—In most situations the platoon is the fire unit. The principal factors determining the echelon of command exercising the functions of fire direction and control over antitank units are the frontage to be defended, the nature of the terrain and the extent to which the position is covered by antitank obstacles.

A pair of antitank weapons is theoretically capable of defending, from closely adjoining emplacements, an unobstructed front determined by the effective antitank range. If a greater frontage is to be covered, the emplacements must be separated by a distance depending on the excess frontage. In such cases fire control is exercised by squad leaders. The platoon leader directs the fire of the weapons by the assignment of approximate positions and sectors of fire.

Where the frontage to be covered permits, antitank weapons are habitually emplaced in pairs. Such employment offers the best practicable assurance that the loss or malfunction of a single weapon will not completely deprive a sector of its antitank defense. The platoon leader assigns primary and secondary sectors of fire to the antitank weapons, designates the off-carrier position and fixes the conditions for opening fire.

Obstructions in the fields of fire may require widely separated emplacements and squad fire control, even where frontage would not exclude employment in pairs.

The commander exercising fire control locates reference points extending over his entire sector and making the limits of effective fire of the battalion antitank weapons (variable limits depending on the type of enemy tank). These reference points delimit a zone beyond which a target will not be taken under fire. In a delaying action, wider limits may be assigned for fire on armored or scout cars and other similarly armored vehicles.

Range cards are prepared by each gun commander immediately on occupation of a position. These cards will indicate the prominent landmarks within the sector of fire, with ranges accurately marked, so that effective fire may be immediately brought to bear on any target appearing in the sector of fire that is within range.

163. Warning Measures.—In addition to the tactical employment of his AA-AT platoon, the platoon leader will probably find that he will be called upon for recommendations by the battalion commander and assistance in coordinating certain details of the battalion defensive fires. Being concerned with antiaircraft and antitank protection for the battalion, he will

be prepared at all times to recommend the warning measures necessary to secure the battalion against surprise attack. These measures involve principally the posting of AA and AT guards. The gun crews must be constantly on the alert and at least one member of each squad detailed to keep watch for the approach of hostile aircraft or tanks. The limited personnel of the platoon, however, precludes their use as air or antitank guards at any great distance from their weapons. It will be necessary, therefore, that air guards be detailed by other units of the Battalion, and the AA-AT platoon leader should be prepared to make the necessary recommendations for the posting and coordination of these guards.

164. **Ammunition Supply.**—Many of the difficulties of ammunition supply in the attack, do not exist in defensive situations. Usually a supply of ammunition and accessories can be stored in or near the gun position.

SECTION 8

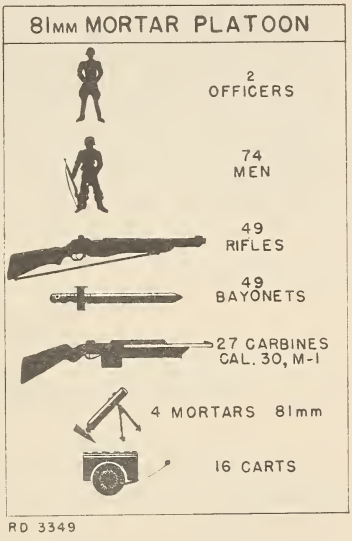
THE 81MM MORTAR PLATOON, WEAPONS COMPANY, INFANTRY BATTALION, IN DEFENSE

165. The 81mm Mortar Platoon, Weapons Company, Infantry Battalion, Composition and Armament.—The 81mm Mortar Platoon is a unit of the Weapons Company of the Marine Infantry Battalion, and consists of—

a. Platoon Headquarters.

b. 2 81mm Mortar Sections.

The Platoon Headquarters consists of two lieutenants, the senior of whom is platoon leader and the other battalion gas officer (offensive chemical action), a gunnery sergeant, a signal corporal and 6 privates, two of whom are messengers and signalmen, one a telephone operator and three for other duty.



Each of the two mortar sections consists of—

a. Section Headquarters.

b. 2 81mm Mortar Squads.

c. 1 Ammunition Squad.

In the Section Headquarters there are a Platoon Sergeant who is Section Chief, a Sergeant Observer and three privates, two of whom are linemen and one a telephone operator.

The Mortar Squad consists of a Corporal Squad leader and 5 privates, one of whom is gunner, one assistant gunner and three for ammunition and supply. (Fig. 36.)

FIGURE 36
The 81mm Mortar Squad

Each Mortar Squad is equipped with an 81mm Mortar, making a total of 4 mortars to the Platoon.

The Ammunition Squad consists of one Sergeant, who is in charge of the Squad and of the ammunition supply and who also serves as Gas Noncommissioned officer of the Battalion; 2 Corporals and 13 privates.

Of the 76 officers and men of the Platoon, 21 are armed with the pistol or carbine, 47 with the rifle and 8 with the automatic rifle. Two of the automatic rifles are issued to the Ammunition Squad and one to each Mortar Squad.

166. General.—While, as hereinbefore explained, the AA-AT Platoon operates tactically directly under the Battalion Commander, the Weapons Company commander retains tactical control of all 3 machine-gun platoons and the 81mm Mortar Platoon.

For the Mortar Platoon, whenever practicable, the weapons company commander designates the target areas and fixes conditions for opening fire. When as the result of restricted visibility or unusual extension of the battalion front, the fire of the mortars cannot be directed by the weapons company commander, the battalion commander attaches the mortars either by squad or by section to one or more rifle

companies of the forward echelon. In such case the rifle company commander directs the fire of the 81mm mortar as prescribed for the 60mm mortar.

167. Characteristics of 81mm Mortar.—The 81mm Mortar combines mobility and power in greater degree than any other supporting infantry weapon. It can be man-handled for considerable distances without causing excessive fatigue to the crew.

The mortar fires two types of high explosive shell, the light (7 lbs. 3 oz.) with a maximum range of 3,280 yards and the heavy (15 lbs. 12 oz.) with a maximum range of 1,280 yards. These shells have an explosive effect comparable to 75mm and 155mm projectiles, respectively, (15 yards radius for the light shell and 30 yards radius for the heavy). Under normal conditions the usual effective range at which good results can be obtained is about 2,000 yards. Range is limited by the requirements of observation rather than the ballistic properties of the piece. At the longer ranges, accuracy of fire is greatly decreased. Due to its high-angle trajectory, the mortar is capable of taking advantage of deep defilade and of exercising a wide choice in the selection of positions. It is habitually fired from masked positions. When under battalion control, it is normally emplaced in a zone extending from 300 to 800 yards in rear of the forward troops.

The mortar also fires a smoke shell which is used to lay down a screen or to blind observation at a particular locality in enemy territory. The smoke shell has the same range as the heavy shell.

168. Duties of Leaders.—The platoon leader maintains contact with the company commander at all times in combat, receives from him his fire missions, and in the proper case makes recommendation for the employment of the mortars. He familiarizes himself and his platoon with the plan of defense of the sector.

He assigns fire missions for each mortar.

He selects principal, alternate, and supplementary positions for the mortars or sections together with observation posts.

He causes firing data to be computed and range cards prepared.

He prepares an overlay showing numbered target areas and sends it to the battalion command post.

He assures himself that each section and squad is familiar with the various firing positions and observation posts and that it can quickly occupy the positions.

He instructs the personnel of the platoon as to the details of the terrain and informs them of the location of the various units in the sector and the headquarters of each, the aid station, and ammunition distributing point.

He orders a priority of work to be executed by the elements of the platoon in organizing the position.

The section leader reconnoiters the position area assigned and indicates the approximate position for each mortar emplacement. He locates observation points which will permit each squad leader to observe the target areas or sector of fire for his mortar. Usually one of the squad observation posts will serve for the section leader. Where adequate observation near the mortar positions is not available, the section leader may elect to control the fire of the section himself and establish observation posts for control of both mortars.

The squad leader exercises the functions of fire control and establishes an observation post that will permit him to observe fire on the target and to transmit his commands to the crew by voice or arm-and-hand signals. He instructs the members of his squad in their duties and maintains fire discipline during action. When assigned an approximate position by the section leader, he fixes the exact location and directs the preparation of the emplacement (camouflage and intrenchment where required) and the movement of the mortar into position. When the section or platoon leader conducts the fire of the squad, the squad leader is responsible for the proper execution of the orders of the leader controlling the fire and the exactness of the performance of duties by the mortar crew.

169. Missions in Defense.—The 81mm mortars are employed to cover dead spaces in the bands of machine-gun fire in accordance with the battalion fire plan, and to fire on defiladed areas where hostile forces might assemble for attack. (Figs. 24, 37.) These fires are coordinated with the barrage and counterpreparation fires of artillery.


60 mm
&
81mm MORTAR
CONCENTRATIONS
FIG. 3
0
200
600 YDS.
SOLUTION
60
60
60
81
81
81
81
A
B
C
D
E
1
2
3
4
5
6

Each mortar is assigned primary and secondary targets. The primary target is the target included in the battalion final protective fires. Secondary targets are numbered (from right to left) and assigned priority. They are fired on command or signal. They may include targets in the sector of the battalion or in those of adjacent battalions. Targets in a lower priority may be engaged in emergency where no signal is received and no target in higher priority is presented.

Additional typical missions and employment of the 81 mm mortars in defense are:

a. To fire on definitely located point targets defiladed from the fire of flat-trajectory weapons.

b. To cover important approaches to the defense position especially those which are defiladed from flat-trajectory weapons. Such targets might be wooded stream lines, road cuts, draws, railroad embankments and reverse slopes.

c. To fire on enemy supporting weapons which are definitely or approximately located.

d. To fire in support of a counterattack to regain captured ground.

e. A sector of fire may be assigned each mortar for fire on any targets appearing therein.

f. Separate missions may be assigned each mortar and the fire missions assigned are coordinated with other defensive fires.

g. Fires should not be placed closer than 200 yards to a friendly group.

h. Area targets requiring zone fires are artillery targets and should not be assigned mortars.

i. The necessity of conserving ammunition demands careful discrimination of mortar targets from those pertaining to the machine guns on the one hand and the artillery on the other.

j. Mortar fires are for the most part fires against personnel. The heavy shell is employed in destruction fires against enemy shelters and accessory defenses. Smoke shell is used to lay down a screen or to blind observation at a particular locality in enemy territory.

k. In deciding upon the suitability of the target, the best rule to follow is to decide whether or not the target is important enough to justify the expenditure of the ammunition, giving due consideration to the amount of ammunition available.

170. Unsuitable Mortar Targets.—A few targets unsuited to mortar fire are: fast moving armored vehicles, enemy scouts, widely dispersed enemy infantry, and other enemy

targets that are primarily suited to the other battalion weapons.

171. **Initial Reconnaissance.**—On summons of the company commander, the platoon leader directs the gunnery sergeant to move the platoon to the march objective already designated or to a position in readiness, and then, accompanied by the instrument corporal, joins the company command group. He executes such reconnaissance as may be directed by the company commander or as may be required as a basis for the organization of the defensive fire plan of the Battalion. He notes points of known or suspected hostile occupation, areas defiladed from the fire of flat-trajectory weapons, and the dispositions of friendly rifle elements. Based on this reconnaissance, he determines the method of occupation of his position area.

172. **Selection of Mortar Positions.**—Terrain being suitable, the mortar sections are normally assigned to positions within the area occupied by the battalion of which they are a part. The platoon commander selects the specific area for the sections and the section leaders select the actual mortar positions. Since the mortar is a high-angle-fire weapon, it should be placed in a well defiladed position in order to take advantage

FIGURE 38
81mm Mortar in firing position

of this characteristic. (Fig. 38.) Lacking defiladed terrain the next best positions are in areas covered with small scrub growth. Sunken roads and old shell holes may be used advantageously. In extremely flat terrain devoid of cover, it may be necessary to dig large pits in which to place the mortars. (Fig. 39.) Mortar fire is much more effective when it is observed and adjusted. Selection of the mortar position near a good observation point is of paramount importance. In general a good mortar observation post should be as close as possible to the mortar position and as near to the line mortar-target as can be obtained. The establishment of telephonic communication will in some cases allow the use of good observation further to the front and rear.

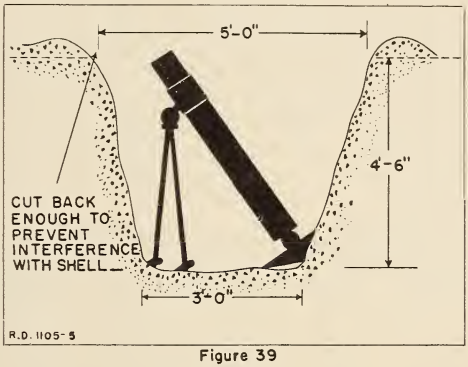


Figure 39

81mm Mortar emplacement

The mortar, because of its long range, should be placed well within the defensive position, either in the vicinity of the battalion reserve line or between the battalion reserve line and the regimental reserve line. In some cases the terrain may be such that positions for the mortars are only available in the vicinity of the regimental reserve line. When this is the case permission to so emplace mortars should be obtained from the commander of the force occupying or responsible for the occupation of the regimental reserve line.

Positions close to the flanks of a defense area should be avoided wherever possible. This is especially true for flank battalions. Positions should also provide covered routes of supply from the rear as well as covered routes for lateral movement.

The presence of heavy shells in the ammunition supply, with a shorter range, should not unduly influence the selection of mortar positions. It is not necessary to select mortar positions sufficiently close to the front line to permit placing of fire by heavy shells 200 yards in front of the main line of resistance. Rather, the mortars should be placed in positions from

which the light shell can be fired most advantageously and in such localities that an early rearward displacement of mortars will not be necessary in the event of an enemy penetration. The following considerations justify this procedure:

a. The unit of fire for a mortar consists of 96 rounds, 84 of which are light shell and 12 the heavy type. If two units of fire are placed on each mortar position, a considerable stock of ammunition will be built up at the position, the preponderance of which will be light shell. When the enemy attacks, the light shell can be used first and then when the enemy approaches within range of the heavy shell those shells can be used on suitable targets as they present themselves.

b. A position too close to the main line of resistance will necessitate an early retrograde movement by the mortar units in case of an enemy penetration. This will materially reduce the fire power of the mortars during the most critical stages of the engagement, since no matter how they are withdrawn, either singly or by section, the fire power of the withdrawing mortar or section is lost during the retrograde movement.

Assuming that the mortar platoon is usually employed by sections, care must be exercised in selecting the individual mortar positions. When employed by sections, the normal method, the mortars of a section should be separated by from 50 to 75 yards. This will prevent the destruction of both mortars by the burst of a single enemy shell, and will facilitate control. Likewise, mortar emplacements should be sufficiently distant from other critical installations (observation and command posts, other heavy weapons emplacements) to avoid simultaneous destruction by a single shell. If practicable, each emplacement is so located as to be beyond the zone of dispersion of enemy projectiles directed on critical targets of enemy fire.

In all cases, the mortar positions must be within effective range of the targets and afford observation of the targets and friendly troops from observation posts, in general, within arm-and-hand signalling distance from the emplacements. Where it is desirable to echelon the mortar positions, the observation post may be removed at greater distances from the emplacements, and fire control exercised through wire communication by the platoon leader or by section leaders. The normal targets of the mortar are located within a zone of from 200 to 600 yards in front of the front-line troops. Smoke objectives may be considerably more distant. The mortar emplacements should be close enough to the weapons company command post to permit rapid and easy communication. Only where terrain restricts visibility of targets and the front-line troops, should the mortar be advanced beyond the distance

permitting control by the weapons company commander. In such cases, the mortar sections should be placed at the disposition of rifle company commanders.

Where several equally good mortar positions are available in a defensive sector, the positions closest to a good observation point should be selected.

To summarize, the chief requirements of a good mortar position are defilade, covered routes of supply, covered routes for lateral displacement, ease of withdrawal, ability to fire assigned missions without displacement of mortars, and proximity to good observation posts.

173. **Alternate Positions.**—Alternate positions for each mortar should be selected. The requirements of these alternate positions are the same as for the primary positions.

No supplementary positions are usually required for the mortar due to the ease with which its fire can be shifted to meet attacks from unexpected directions. However, if the terrain is such as to preclude the above, supplementary positions should then be selected.

Initially positions are selected to cover the most likely avenues or routes of enemy approach. However, plans for the defense of a position can not be considered complete until an adequate defense against an enemy attack from any direction is provided for.

174. **Occupation of Position.**—The squad leader directs the installation of the mortar in its firing position, the camouflage of the piece and its emplacement, and the adoption or construction of cover for the piece and the crew.

In the occupation of the observation post, care is taken to avoid movement and exposure that would attract hostile attention and fire.

In the prolonged occupation of a defensive position, the formation of paths leading to mortar emplacements and observation posts is, as far as practicable, avoided. Disclosure of the location of emplacements by unavoidable paths is best prevented by carrying the paths beyond the emplacement.

175. **Improvement of Positions.**—All positions must be improved by digging and camouflage to increase the safety and concealment of the mortar and personnel. Duplicate range cards are prepared; one to be sent to the next higher commander, the other to be used by the squad leader in conducting fire.

176. **Primary Targets.**—As has been previously pointed out, each mortar is assigned one primary target. This target is the first priority mission of the mortar to which it is assigned and usually forms a part of the final protective line and is placed in defiladed or wooded areas which cannot be covered by the fire of automatic weapons. It is placed in an area

usually about 100 x 100 yards to cover an important gap in the final protective line of the machine guns of the battalion or to cover a critical area in the battalion sector which is defiladed from the fire of flat-trajectory weapons, as a woods, a ravine or a stream line which offers a covered approach to our position. The locations of primary targets are specified by the battalion commander. It is fired on a prearranged signal and when data has been prepared for it, a separate aiming stake is placed to mark its deflection. When not engaged in firing the mortar is kept laid on its primary target. It is important to remember that if the signal for the primary target is received while the mortar is firing at another target, fire is immediately shifted to the primary target. This is especially important in beach defense employment.

Within the section, mortars may be assigned separate missions or they may both fire upon the same mission depending upon the time available, the number of missions and their importance. Whether the fire is for neutralization, harassment or interdiction depends upon the number of rounds fired and the length of time during which the firing is conducted.

177. **Secondary Targets.**—Each mortar is usually assigned one or more secondary targets in addition to its primary targets. This secondary target is supplementary and similar to a primary target but is placed in some other part of the sector, either in front of the main line of resistance, like the primary target, or on some important locality within the defensive sector itself. This secondary target is useful in a local hostile attack when the area in which the primary target has been located is not threatened. An example of this would be to locate the primary target of the mortar near the right boundary of the defensive sector and the secondary target near the center or left boundary of the sector. Then, if the center or left is attacked, but no movement noted near the right, the mortar should be switched to its secondary target, thereby placing additional fire on the threatened area.

178. **Methods of Employment.**—Based on the manner in which the mortar platoon is organized, it is believed that the best method of employment is by section. This does not mean that both mortars are necessarily assigned the same targets, but rather, that by employing two mortars together as a unit greater ease of control and supply can be obtained.

Whenever the requirements of the situation or the terrain are such as to require independent employment of individual mortars the breakdown of the section into single mortar units can be made. This breakdown, to some extent, makes for a less efficient employment of the platoon.

One other method of employing the platoon is that of using all of the mortars together to form a battery. This

method has the advantage of greatly simplifying the problems of control and supply but has the very great disadvantage of concentrating the mortars in a relatively small area. This method is believed to be the least desirable.

179. **Methods of Assigning Missions.**—Each mortar is normally assigned a primary target and a secondary target. A number of additional secondary targets may be assigned each mortar as necessary.

Targets may be interchangeable between mortars or the same targets may be assigned to two or more mortars, depending entirely upon the importance of the target or area on which the fire is to be placed.

Sectors of fire may sometimes be assigned to individual mortars. When the mortars are so employed, a sector of responsibility is assigned an individual mortar or section and the crew made responsible for the placing of the necessary fire on enemy targets appearing in that sector.

180. **Prepared Fires.**—Prepared fires are planned fires for both primary and secondary targets for which data is prepared in advance. Prepared fire is usually area fire, since the targets selected are areas which the enemy is most likely to occupy, the firing data, (range and deflection) having been previously obtained by actual firing, by corrected map data, or by use of base points and a shift of fire for each area to be covered.

181. **Manner of Assigning Prepared Fires.**—Under favorable conditions, a limited number of prepared fires may be assigned orally, the targets being pointed out on the ground. Assignment may be by overlay, or by indication of an aerial photograph or map, in case an aerial photograph or map is available. The most suitable method is a combination of indication by reference to an overlay and aerial photograph or map, where these are available, and pointing out the targets on the ground.

182. **Schedule Fires.**—Schedule fires are prepared fires on primary and secondary targets executed according to a time schedule or upon signal or call from the supported troops. Such fires are arranged by the mortar platoon commander or the commander of the supported unit, either orally or by marking on an aerial photograph, map, overlay, or by a combination of these. The time of firing or designation of the signal to fire on a particular target or group of targets and the amount of ammunition for each are furnished the platoon commander and by him given to the sections in the fire plan.

183. **Methods of Observing and Controlling Mortar Fire.**—The chief methods of controlling the fires of mortars are as follows:

a. From an observation post close to the mortars. This method is best when an observation post is close at hand, in that orders can be transmitted directly from the observation post to the mortars by voice, flag or hand signals.

b. When the observation post must, because of the terrain, be some distance from the mortar position, the chief methods of control are by telephone and voice relay chain or signal. The first method is more efficient and much more rapid but has the disadvantage of being dependent on wire which may be destroyed by enemy artillery fire. To provide this means of communication each mortar section is equipped with two breast reels, each carrying 300 yards of wire, and in addition, one mile of wire for use where necessary is carried by platoon headquarters. Sufficient telephones are provided to connect the observation post and the mortar section command post. Where necessary, an observation post may be provided for each mortar. All mortar telephone lines from mortar observation posts to section command posts are independent of the battalion communication net.

184. **Location of Observation Posts.**—Observation posts are preferably selected near the crests of hills, but observation posts selected in trees, buildings and the like have proven satisfactory upon occasion.

185. **Coordination With Rifle Units.**—When the mortars are emplaced in the areas of the front-line companies, the platoon leader and, in the proper case, the section or squad leaders, establish contact with local commanders and acquaint themselves with their situation and intentions. In all cases they endeavor to regulate their fires in accordance with the situation and action of the rifle units. In particular, they intensify their fires at the moment of hostile assault or on discovery of hostile assembly for attack.

186. **Reorganization.**—During lulls in the action, the platoon leader checks casualties, replaces leaders, directs any needed repairs and replacement of the equipment, and orders the necessary replenishment of ammunition. Damage to emplacements and shelters must be repaired. Positions of the weapons may have to be changed frequently because they may have become known to the enemy. Orders for withdrawal of the platoon will be given by the battalion commander.

187. **Outposts.**—Mortars can render valuable assistance to outpost missions. The outposts, however, must be of sufficient size to protect the mortars. It may be necessary to place the mortars far apart, in which case the squad leader exercises fire control and coordinates his fires with the outpost unit he is supporting. The section leader would take station with the mortar with the most important assignment.

In an outpost position, usually several supplementary positions must be prepared. The entire Mortar Platoon must be familiar with the plan for holding the positions, and for the withdrawal and routes back to the main position. If the outpost covers a wide front and the situation is not clear, mortars sometime are held mobile on their carts in a central location, prepared to move quickly to any of several previously reconnoitered and prepared positions.

188. **Use of Carts.**—The mortars are transported on carts whenever the terrain and the situation permit. Movement into firing position is effected by manhandling. A movement of varying length by manhandling is nearly always required by the terrain and the situation.

189. **Ammunition Supply.**—In assuming the defense time is usually available in which to supply mortar positions with ammunition. Ammunition carts dump their loads at or near the weapons. They are then used to keep an adequate supply of ammunition at the nearest cover in rear of the mortar positions by working between this cover and the battalion ammunition distributing point.

Covered approaches to mortar positions are essential in order that the supply of ammunition may be facilitated.

SECTION 9

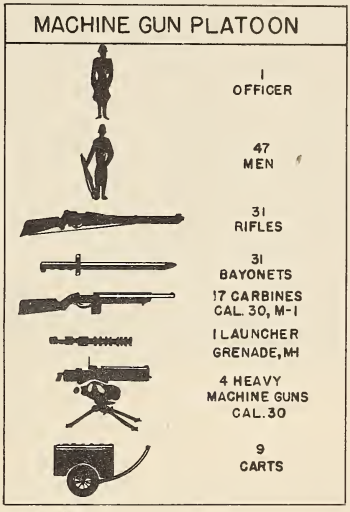
THE MACHINE-GUN PLATOON, WEAPONS COMPANY, INFANTRY BATTALION IN DEFENSE

190. The Machine-Gun Platoon, Weapons Company, Infantry Battalion, Composition and Armament.—The weapons Company of the Infantry Battalion has three machine-gun platoons, each platoon consisting of—

a. Platoon Headquarters.

b. 2 Machine-Gun Sections.

The Platoon headquarters consists of a lieutenant platoon leader, a platoon sergeant second-in-command, two corporals, one of whom is in charge of ammunition and the other is the instrument corporal, and six privates, two of whom are messengers and signalmen, two observers and two for other duty.



The machine-gun section (Fig. 40) consists of—

a. Section Headquarters.

b. 2 Machine-Gun Squads.

The section headquarters consists of a sergeant who is the section chief.

The machine-gun squad consists of a corporal who is squad leader and eight privates, one of whom is gunner, one assistant gunner and six for ammunition and supply. (Fig. 41.)

Each squad is equipped with a cal. .30 machine gun, making a total of 12 machine guns for the three platoons of the company. In addition there are 12 machine guns available in company headquarters for use in stabilized defense and as replacements.

The officers and men of the machine-gun platoons are armed with the pistol or carbine and the rifle.

FIGURE 40
The Heavy Machine Gun Section (cal. .30)

FIGURE 41
The Heavy Machine Gun Squad with carts (cal. .30)

191. **Considerations Governing Employment of Machine Guns in Defense.**—Machine guns form the skeleton of the battle position. (Fig. 53.) The battalion commander is responsible for the proper tactical employment of his machine guns and the battalion defense order prescribes the missions and general disposition of heavy machine-gun units. It apportions the number of guns to be emplaced in forward positions for fire in front of the main line of resistance; or in rear positions to fire long-range overhead fires and limit local penetration or envelopment by hostile attacking forces. Guns emplaced in the battle position are assigned positions and missions by section; fire sectors and final protective lines of the heavy machine guns are combined with the rifle company light machine guns so as to cover the front of the main line of resistance with continuous bands of fire.

Infantry alone cannot hope to capture a defensive position that is plentifully supplied with these machine guns. When such a position must be assaulted the attacker must use artillery, bombing aviation or tanks to neutralize or destroy the defending machine guns. The tank is especially useful in this connection, having been designed especially as the direct enemy of the machine gun. However the tank has not made the machine gun obsolete, as methods are being developed to stop the tanks (antitank guns, antitank grenades, antitank mines, antitank obstacles, tank destroyers, etc.). Assuming that attacking tanks can be stopped the machine guns still form the foundation of every defensive scheme.

192. **Mission in Defense.**—The primary mission of machine guns in defense is the protection of the vital portions of the position: that is, the keypoint of the defensive area. The means of achieving this mission are as follows: (1) Fires supplementary to those of rifle units along likely avenues of hostile approach, (2) Fires covering the intervals between organized localities, (3) Flanking fires and final protective lines laid for the protection of the front and flanks of those defense areas of greatest tactical importance.

In defense the mission of the machine-gun platoon is to support the defense of the sector as ordered.

When the platoon belongs to a weapons company on the main line of resistance, the sections within the platoon are usually disposed in depth. One section is usually located on the main line of resistance; the other in the rear part of the battalion sector.

When the platoon belongs to the weapons company of a battalion on the regimental reserve line, the sections are usually distributed laterally along the regimental reserve line or in rear part of the regimental area.

193. Reconnaissance.—If time permits a detailed reconnaissance by the battalion commander of the area to be occupied by his battalion, he usually directs his weapons company commander to accompany him on such reconnaissance. During the reconnaissance the battalion commander designates sectors of fire, methods of fire, and locations for the sections of the machine-gun company. More often than not he prescribes these matters in a general way only, but, if because of the importance of the sector or for some other reason he considers it necessary, he may prescribe them specifically and in detail.

It often happens that the weapons company commander will receive enough information of the battalion plan from the battalion commander while on this reconnaissance to permit his release prior to the issue of the battalion order. This permits the company commander time for further reconnaissance and early issuance of orders to his company. When he is thus released, the company commander will arrange, if he has not already done so, to have his platoon leaders come forward to accompany him on reconnaissance.

If the battalion commander prescribes the matters relating to the machine-gun employment in a general way only, the company commander must prescribe them in more detail.

194. Orders.—The platoon leader receives his orders from the weapons company commander.

Whenever possible these orders should be issued on the ground the platoon is to occupy.

Orders to the platoon should include information of the enemy and of the friendly troops, the mission of the platoon, the general area or areas to be occupied, the general areas to be covered by fire (the sectors of fire), the direction of the final protective lines, administrative details, and location of the weapons company command post.

Upon receipt of his orders the platoon leader should contact the rifle company commanders in whose sectors the platoon will be located and learn from them the locations of their platoon defense areas.

He then reconnoiters for gun positions and sends for the section leaders if he has not already done so.

When the section leaders arrive, he issues the platoon order. Each section leader should be given his order on the ground his section will occupy.

Orders to the sections should include information of the enemy and of friendly troops, the mission of the section, the general area to be occupied by the section, the limits of the sector or sectors of fire of the guns, the direction of the final protective lines, and administrative details.

The platoon leader points out to squad and section leaders the course of the main line of resistance, indicates the gun positions and sectors of fire, and prescribes the field works to be executed (intrenchments, accessory defenses). He checks arrangements for final protective fires; insures that all personnel understand the signal for bringing down such fires and how long the fires will be sustained; checks arrangements for supply at the guns; verifies the establishment of alternate positions and arrangements by squad leaders for their occupation.

The position of rifle company light machine guns, grouped with the heavy machine guns on the main line of resistance, are visited by the machine-gun platoon leaders in order to insure that sectors of fire of the light guns are fully coordinated with the battalion plan of fire.

195. The Fire Plan.—Actual firing in defense of a position is accomplished in accordance with a previously prepared plan. This is called the fire plan and is based on instructions from the commander of the defensive sector.

A fire plan should include the limits of the sector of fire for each section, the direction and extent of the final protective line if the unit is in a forward combat group; the conditions under which fire is to be opened, the length of time fire is to be sustained, the amount of ammunition to be expended and any special signals for the control of fire. Plans for periods of low visibility, such as night, are also announced, and other instructions necessary to meet any action of which the enemy is capable.

196. Final Protective Line.—The final protective line is the last hope for the defense of an area. While machine guns in a defensive position may seek out enemy targets within their range and may fire at other targets of opportunity as they appear, they are all sited for the final defense of the area they are assigned to protect along a series of lines that are laid close and generally parallel to the forward edge of the defense area. The pattern of the interlocking band or wall of fire that is thus created in front of the position is called the final protective line. (Fig. 42.) Along the trace of these bands of fire, tactical wire is erected. When the enemy assaults the position the guns are switched from targets at which they had been firing to their previously assigned final protective line, thus creating an impenetrable wall of fire that the enemy walks into if they continue their advance.

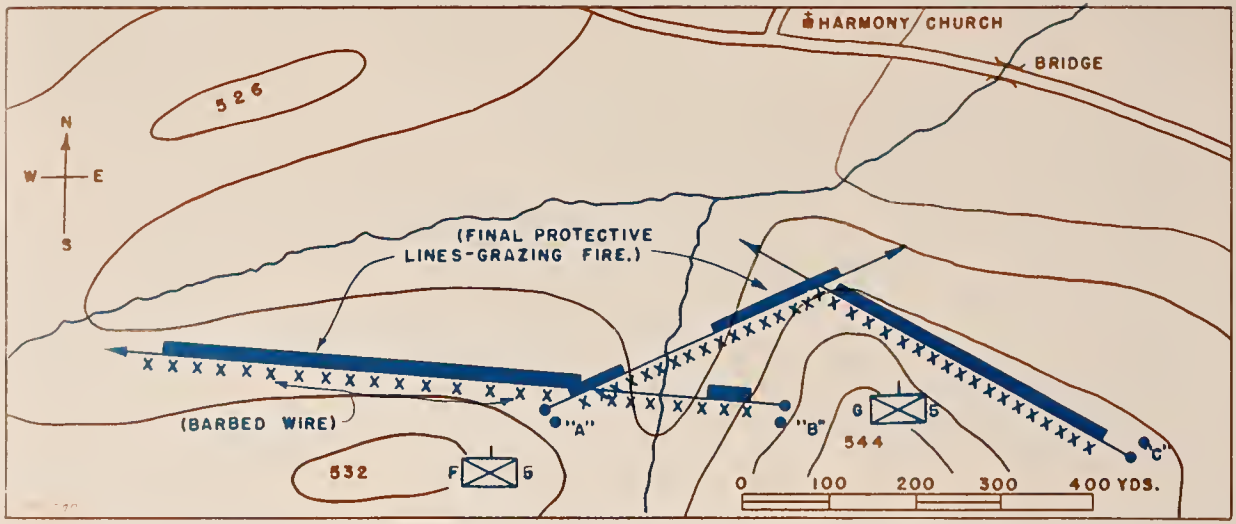


FIGURE 42.—TO ILLUSTRATE THE SITING OF MACHINE GUNS TO OBTAIN GRAZING FIRE ALONG FINAL PROTECTIVE LINES (ABBREVIATED FPL.).

Final Protective Lines are close-in defensive fires of machine guns placed across the front of a defensive position for grazing fire, and fixed in elevation and direction. They can be fired day or night or under any condition of visibility.

All Machine Guns (both light and heavy) on the main line of resistance are laid and clamped on a final protective line when not otherwise engaged. Fires are placed on these lines on call from defending rifle units and last for a specified number of minutes.

Maximum Length of FPL's on flat ground is 700 yards, as bullets do not rise above the height of a man in this distance.

Adjacent Machine Guns coordinate their fires with each other and with close-in fires of other weapons.

Flat Ground in front of the main line of resistance is usually covered by FPL's of machine guns.

Low Spaces and Gaps in the FPL are filled in with the fire of artillery, mortars, and other weapons.

Lines of Barbed Wire (called tactical obstacles) are constructed along FPL's to detain the enemy or hold him under fire. FPL's (with barbed wire obstacles) should not be closer than 40 yards nor farther than 100 yards from the position being defended.

If Less Than 40 Yards, the enemy could approach within hand grenade range.

If More Than 100 Yards, it is more difficult to hold the enemy under effective fire and observation, especially in fog or at night when visibility is reduced.

ILLUSTRATIVE SITUATION

Blue is organizing a defensive position against an expected Red attack from the north. One rifle company is assigned to defend Hill 532 and one to defend Hill 544.

Machine guns sited on west side of Hill 544 (at "B") can place grazing fire (FPL as shown by the heavy portion of the arrow) across the entire front of Hill 532 because ground is approximately flat along that part of the line of fire.

Machine guns located on east side of Hill 532 (at "A") cannot cover entire front of Hill 544 with fire because the nose extending north from Hill 544 prevents grazing fire beyond that point. To cover the entire front of Hill 544, additional guns must be placed at "C."

The fires from guns at "A" and "B" would not be grazing fire where it crosses the low ground along the stream; therefore no FPL's are indicated in that area. That area would be assigned to a 60mm or 81mm mortar and their fires would be placed there when it became necessary to fire on the FPL.

The FPL's from guns at "A" and "C" would not be grazing fire beyond the nose of Hill 544, as the ground drops off too sharply; therefore the FPL's for these guns have not been made 700 yards long, but only long enough to indicate where grazing fire occurs.

Tactical wire obstacles along the FPL's is indicated thus: XXXX.

Note especially that FPL's run generally parallel to the front being defended, and not out toward the expected enemy approach. Machine guns would fire to the front (from alternate or supplementary positions) when the enemy was in the vicinity of the bridge, Harmony Church, and Hill 526. As the attacking elements came closer the machine guns would move or shift their fires to form the interlocking bands of grazing fire (final protective lines) across the fronts of adjacent units along the previously selected lines as indicated.

197. Fire Direction and Control.—Fire direction is the assignment of target areas or fire sectors, while fire control is exercise of the actual function of controlling the fire of the weapon. Whenever practicable, the platoon leader controls the fire of the platoon guns. He locates the approximate gun positions, assigns targets, fixes ammunition expenditures, and gives commands or signals for opening fire. Otherwise he exercises the functions of fire direction by assignment of target areas or fire sectors to the section leaders, who then exercise fire-control functions.

In masked position, the platoon leader usually exercises fire-control functions. However, wide separation of the sections or difficulty of communications may require delegation of these functions to section leaders.

In open positions, delegation of fire-control functions to section leaders is usually necessary. However, crest positions affording ample cover in the immediate rear may make possible platoon fire control as for masked positions. In this case, gun crews and weapons remain in cover positions until ordered to occupy fire positions by the platoon leader.

As a general rule, most effective results are obtained by the surprise concentration in respect to both place and time of the fire of all the platoon guns. Where time is available, fires on the various targets included in the platoon target areas or sectors of fire are, where practicable, prearranged and executed on order of the platoon leader. He fixes the number of rounds to be fired on each target.

Observers posted from the platoon command group maintain continuity of observation over the platoon sector or target area. They select key terrain features as reference points and determine range and other firing data to facilitate the engagement of targets of opportunity appearing in the field of fire.

The platoon observation post should be close enough to the gun positions for easy transmission of orders by arm-and-hand signals. It should permit continuous observation of the location of the fire sector or target areas assigned to the platoon. Supplementary posts may be established for observation of the situation on the flanks and antiaircraft warning missions under the direction of the platoon sergeant. In defense, control in depth is preferable to lateral control. If the platoon is distributed in depth, the platoon leader can first move forward to control his initially engaged forward section, and then be able to move to the rear to give instructions to his more rearward section. This is more feasible than any movement of the platoon commander to the flanks in a lateral distribution of guns. Control of guns on the regimental reserve line is lateral.

198. **Machine-Gun Fire Unit.**—The section is the machine-gun fire unit. In order to insure the density of fire that a machine-gun sector of fire ordinarily demands, and also facilitate tactical control within the machine-gun sections, the guns are usually located in pairs. Although the guns are employed in pairs they should be separated enough to prevent the destruction of both by one shell, and, at the same time, they should be close enough for both to be engaged on the same fire mission. In order to provide for the above and yet permit control by the section leader they are generally placed from 20 to 50 yards apart.

Although as previously stated, machine guns are usually employed in pairs, it sometimes happens that this method of employment will not meet the needs of the defense. In wooded or broken terrain, for example, where there may be a need for an unusual number of machine gun fire missions, the guns of the section may be assigned separate missions. In such a case, the guns should not be so far separated as to preclude tactical control by the section leader.

199. **Sectors of Fire.**—Sectors of fire are assigned to each section of the platoon. The sectors of fire of a forward section should not usually exceed 1600 mils. Forward sections should always be assigned a sector of fire and a final protective line.

The sectors of fire of machine guns of a rear section located in either the rear part of the battalion area or along the regimental reserve may exceed 1600 mils. The sectors of fire of rear machine guns will not usually exceed 2000 mils.

200. **Distribution of Guns.**—Machine guns assigned to the defense of an area should be distributed in depth in accordance with the principle of keeping the enemy under fire in front of, and within the position. There is a great tendency to place an undue proportion of machine guns well forward in a defensive sector. It can be readily seen that with most of the guns placed forward, it is very likely that once the main line of resistance is penetrated, many of the guns will be put out of action or lost and the resistance to the attack greatly lessened. The possible use of 12 additional machine guns on defense will greatly obviate this difficulty in stabilized situations.

It must be borne in mind that the necessity for depth is important for it will usually be found that there are insufficient guns in the rear areas to carry out the general plan of the defense.

Another advantage obtained by distributing the guns throughout the area is that, in all probability, fewer guns will be destroyed by the enemy artillery fires prior to the commencement of the attack, and the task of the enemy mortars and artillery in seeking out machine-gun emplacements will be much more difficult and less likely of success.

An exception to the above considerations is when the main line of resistance is on a reverse slope it is often practicable to move all machine guns to the crest in front for long-range fire with a view to inflicting maximum losses on the enemy during his advance. However, provision for timely withdrawal to primary positions must be made.

When the main line of resistance lies upon a forward slope, one echelon of guns frequently occupies firing positions on the crest in rear for long-range fires. These guns also have the mission of stopping any hostile elements which succeed in breaking through the main line of resistance; they also function in antiaircraft defense. Where necessary, they occupy primary positions for covering the long-range fields of fire, and supplementary positions for the close-range missions. The long-range fires may be delivered from masked positions. Initially this echelon may be on the line of combat outposts if covered routes of withdrawal are available.

201. Protection for Machine Guns.—In executing the mission of protecting important positions, the machine guns in turn will need close in protection. (Fig. 43.) The best way of protecting the guns is by placing them within the occupied areas of rifle platoons or immediately adjacent to a platoon defense area. If at any time it is not practicable to place the guns in

FIGURE 43

Rifleman in foxhole for close-in protection of machine-gun emplacement (Shown without camouflage to illustrate construction)

or near a platoon defense area, riflemen from an adjacent platoon defense area should be furnished to protect the gun crews, for reasons described in next paragraph.

202. **Locating Machine Guns in the Defensive Area.**—It is the duty of the battalion commander to decide on the general location of the machine guns and their sectors of fire.

Both the front and the intervals between platoon defense areas are covered by machine-gun fire whenever possible. This may sometimes be better accomplished by locating the guns near adjacent platoon defense areas than by placing them in the platoon defense area itself. Not only is the fire of guns disposed in this manner more apt to be flanking and consequently more remunerative but it is directed against an attacking unit whose zone of attack, more often than not, does not include the gun position. The difficulties of the attacking unit in such a case can be readily appreciated.

From the above, it follows that when an enemy unit attacks a platoon defense area it receives fire from machine guns some distance from its flanks. Such fires are directed at every attacking element that is seen or believed to be within effective range. If no enemy can be seen, such as at night or in a fog, and there is no better use to which the fires of the guns can be put, they are then used to place an interlocking band or wall of fire in front of the adjacent platoon defense area (the final protective line).

From the preceding explanation it can be seen that most defensive fires, whether delivered at seen or unseen hostile targets or along a final protective line, not only strike the attacker from the flanks but come from outside that attacker's own zone of attack. Once the attacker is caught by these fires, it becomes exceedingly difficult for the attack to progress. If, in addition, the machine guns have defilade and concealment protecting them from the fire and observation of hostile elements advancing directly upon them, their flanking fire is even more effective.

All guns are normally assigned a sector of fire, the main object of which is the covering of probable routes of hostile approach. There are ample guns within our present organization to cover both routes of approach and the front and flanks of combat groups.

As indicated above, it is usually desirable to place guns in sight defilade, or in rear of natural obstacles that permit flanking fire and give concealment from the front. However, in locating gun positions, it should be remembered that the guns are placed primarily in order to be able to fire upon the enemy, and that any compromise among the factors entering into the ideal position should not result in serious limitations of this requirement.

When locating the gun positions, the suitability of the prospective positions for use at night must also be considered. Where a single position suitable for both day and night can be found it is advantageous to use it. When such a position is not to be found a supplementary night position must also be selected and prepared.

203. **Fire Positions.**—In the defense, machine guns occupy—

a. Primary gun positions.

b. Alternate gun positions.

c. Supplementary gun positions.

(1) **Primary positions.**—Primary gun positions are those locations from which the gun fires upon its primary mission, the protection of the vital portions of the defense position, the final protective line.

(2) **Alternate positions.**—Guns that fire repeatedly from the same position are quickly located by the enemy and usually destroyed. Alternate positions are those to which the machine guns can be moved, and from which the same assigned missions can be accomplished. They should be at least 50 yards from the occupied position; are prepared in the same manner and, if possible, are connected with the occupied positions by a shallow trench or other means in order to provide protection for the gun crews when shifting to them. Instead of waiting to receive enemy fire that threatens to make an initial position untenable, the detection of the position by the enemy should be anticipated and movement made to alternate positions before fire is received. The movement is ordered by the section leaders. Even when there is no firing, alternate positions may be occupied from time to time on orders of the platoon leader to deceive the enemy, especially when there is active enemy aerial observation.

Long range machine-gun fires from positions in the main line of resistance result in premature disclosure of principal defensive positions and exposure to the annihilating fire of hostile artillery.

(3) **Supplementary positions.**—Supplementary positions are positions prepared for occupancy by machine guns from which they can cover likely avenues of enemy approach not covered from the primary positions. Unlike alternate positions, supplementary positions require a separate new mission. Supplementary positions may be frequently occupied by the rearward guns for, in most cases, these guns can be more readily shifted since they will not, in some instances, be as completely committed during certain stages of the hostile attack as the more forward guns. These positions are within the same general area and are usually within 100 yards of the normal (principal) position.

Supplementary positions for long-range fire by machine guns assigned to the main line of resistance are limited to locations which assure covered routes for return to position on the main line of resistance in time to accomplish the principal fire missions from the primary positions.

Supplementary positions are occupied only upon orders of the weapons company commander, except in emergencies, when the platoon leader may direct their occupancy.

(4) **Dummy emplacements.**—If time permits, dummy emplacements are constructed. These emplacements are not as well concealed as the regular emplacements and are located at some distance from actual gun positions. The purpose of such emplacements is to deceive the enemy as to the actual installations.

204. Movement Into Position.—A weapons company ordered to occupy, as part of a battalion, a forward area on the main battle position, moves up to its position in one of two general ways: (1) directly up to its position, (2) to an assembly position or other intermediate place and thence to its defensive position later. In either case it is the responsibility of the company commander to see that his company reaches its designated defense area promptly and is properly disposed on the position.

When its battalion deploys, the weapons company adopts a formation corresponding to that of the rifle companies. It may move forward in a partly deployed company formation (which is the usual procedure, time permitting) or a platoon may be attached to each rifle company and move forward with it.

205. Organization of Gun Positions.—a. After orders have been issued and the unit arrives on the ground to be occupied, certain duties must be performed pertaining to the organization of the position. Emplacements must be dug for the primary gun positions, necessary fields of fire cleared, tactical wire erected, range cards prepared, ammunition and other supplies brought up to the position; these duties being assigned to members of the squad to perform. Ammunition details from each squad are generally grouped under the ammunition corporal when bringing ammunition to the position.

b. After the initial work has progressed to include standing type emplacement for the primary gun positions, (Figs. 44, 44A) work is commenced on alternate gun positions and routes to them from the primary gun positions; then work is begun on the supplementary gun positions and routes to them from the primary and alternate gun positions, and finally, dummy emplacements are constructed.

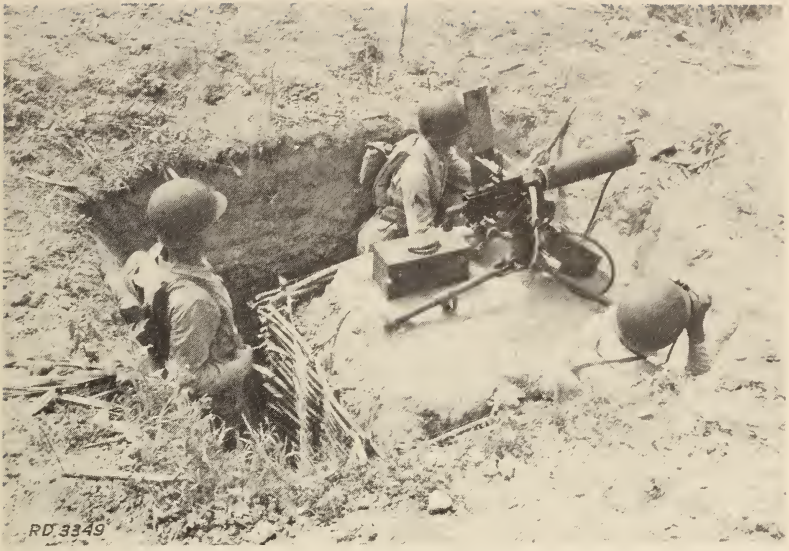


FIGURE 44
Heavy Machine Gun emplacement, note revetment
(Shown without camouflage to illustrate construction)

FIGURE 44A
Heavy Machine Gun emplacement, front view

c. During the time that the primary gun emplacements are being constructed, the machine guns should be mounted and prepared to fire against the enemy should he launch a surprise attack.

206. **Siting the Guns.**—Machine guns are sited for direct fire. Indirect fire is secondary. In the earliest stages rear guns may not find any targets in their sectors of fire. Thus, rear guns may sometimes be used initially to fire long range indirect fire missions. When the rear guns are used to fire these missions, the firing should be done from or near the direct-fire emplacements of the guns, when practicable. The machine guns of reserve units should be sited so that from their primary positions they can be normally employed on direct fire long range missions against suitable hostile targets, using overhead fire, before the hostile assault is well under way. Any supplementary indirect fire positions must be near enough to the primary gun positions for the guns to be returned to them quickly, as soon as it becomes possible to engage the enemy by direct fire methods.

207. **Vulnerability.**—The machine gun is peculiarly vulnerable to the individual enemy rifleman who may work forward, under cover of the fire of other enemy riflemen, to a position from which he picks off the gun crew one by one or even rush the position. This is particularly true when the gunner's attention and fire is properly directed obliquely to the front, as previously described, and not in the direction from which the attack upon him comes. Consequently, it is advisable to place the guns in or near platoon defense areas. In contradistinction it is also true that the machine guns will probably draw accurate long range mortar fire and should not be located in the center of a platoon defense area.

208. **Concealment.**—Every possible means should be taken to avoid disclosing the location of machine guns to the enemy. (Fig. 45.) Careful concealment of the gun positions will do much to prevent their destruction by hostile mortar or artillery fire as well as to prevent their becoming focal points of the attack. Locations near trenches exposed to hostile ground or aerial observation should be avoided, if possible, in order to escape the effect of hostile fire directed at the trenches. Also, the more complete the concealment of the guns, the greater the chances of surprise effect on the attacking enemy.

FIGURE 45

Heavy Machine Gun dugout emplacement
(Shown without camouflage to illustrate construction)

Care should be taken to avoid making paths to the machine gun positions. Paths are plainly visible from the air or in an aerial photograph and may be the means of disclosing to the enemy the location of an otherwise well concealed gun position.

209. Assignment of Sectors of Fire.—Sectors of fire are assigned to sections as previously described. Preparations are also made to fire upon important areas within the assigned sector by night firing methods during periods of low visibility. A defense range card is prepared for each gun and plans made to take neighboring combat groups under fire in case of their capture.

In order to secure depth for the defense, sectors of fire for sections occupying rearward positions are assigned so as to include areas between occupied defensive positions to their front. Flank units may be assigned sectors outside the battle position to protect the flanks. When overhead fire is possible for the rearward guns, they may be assigned additional missions.

210. **Coordination of Fire.**—a. Within the battalion area.—The fires of the rifle, light machine gun and machine-gun units are coordinated within the battalion area. This is done either by orders of the battalion commander or, more often, by mutual adjustments between the weapons company commander and the rifle company commanders in accordance with the orders of the battalion commander. The reason for this coordination is to insure the covering of all important areas by fire.

b. With neighboring defense areas.—The coordination of machine-gun fire with that of the machine guns of neighboring defense areas is arranged by the weapons company commanders as ordered or prescribed by their respective battalion commanders. The arrangements of a mutual exchange of defensive fires insures the covering of most of the weak points in the defensive areas, the battalion boundaries, by fire.

c. Once the weapons company commander has ordered his guns into position in accordance with the general or detailed instructions of the battalion commander, he should submit to the battalion commander, as soon as possible, a sketch or map showing his gun locations and sectors of fire. The sketch should include his own gun positions, the supporting machine-gun fires of neighboring units, and any recommendations regarding desirable adjustments in the locations or sectors of fire. If possible, the weapons company commander should personally take his plan to the battalion commander, who has to coordinate it with mortar and artillery fire plans.

d. It sometimes happens that a battalion is forced to take up a defensive position in close contact with the enemy. In some such cases it may be advisable for the battalion commander to attach machine-gun sections or platoons to rifle companies temporarily. When this occurs, the machine-gun section or platoon leaders locate and site their weapons for the defense of the unit to which they are attached, coordinating their fires with those of other units as soon as circumstances permit.

When the above situation occurs, the battalion commander should, as soon as possible thereafter, release the guns to the control of the weapons company commander and prepare a coordinated plan as previously described.

211. **Assignment of Final Protective Lines.**—Since firing along the final protective lines affords the best means of protection when visibility is so poor that no definite enemy targets can be actually seen, preparation for firing along these lines should be made early in the occupation of a position and the necessary data recorded on the defensive range card. It is especially important that these final protective lines be coordinated with adjacent machine guns and other weapons in order to insure that all dead spaces in the final protective lines are covered by the fires of other weapons.

212. **Communications.**—The weapons company command post is normally located in the vicinity of the battalion command post. With the guns of the company distributed throughout the battalion area, communication between the elements of the company will, at best, be extremely difficult to maintain. It is essential that some form of communication be maintained between company and platoon commanders. Except in highly stabilized situations, runners are the only means available, and for this reason, the company commander should make certain that runners are always present in the vicinity of his command post. Communication within the platoon is by voice, messenger, and arm and hand signals.

213. **Ammunition Supply.**—It is the responsibility of the weapons company commander to make the necessary arrangements for the ammunition supply of his units. In front line battalions, the original loads of the ammunition carts are usually unloaded near the gun positions. Ammunition carts are then grouped and sent to the battalion ammunition distributing point for refilling. The second loads may also be taken up to or near the gun positions or they may be kept in a central location as a company reserve, either loaded on or unloaded from the carts.

It is often necessary to send carts of front-line companies to positions in the rear where they will be out of danger of enemy artillery fire. When this is necessary, additional water and ammunition are brought up under cover of darkness. It is the duty of the company commander to endeavor to establish a large enough reserve of ammunition on the position to meet expected demands.

214. **Reserve Battalion Machine Guns.**—The machine guns of reserve battalions may be assigned one or more of the following missions:

a. Placing long range machine-gun fire on enemy targets forward of the battle position.

b. Supporting counterattacks made by reserve units.

c. Assisting other units in checking hostile penetrations or envelopments of the defensive area.

Gun positions for the accomplishment of the first of these missions are usually to the rear of the guns of the front-line battalions. The guns are used to place harassing or interdictory fires, or barrages that form a part of the close-in defensive fires in front of the position.

The selection of the positions for these guns is determined by (a) necessity for concealment (b) clearance of intervening masks (c) safety of overhead fire (d) observation (e) proximity to the reserve unit.

The fires of the reserve guns are usually executed by battery fire using indirect laying. The battery fire unit is the platoon.

In case the reserve battalion is assigned the task of organizing the regimental reserve line for defense, the machine guns of the battalion are used in the organization. The same principles that govern the locating of the forward guns apply in general, with the exception that it is frequently advisable to assign wider sectors of fire. Positions are prepared and arrangements made for the placing of fixed bands of grazing fire similar to final protective lines. The prepared positions may be initially occupied or the company may be held mobile with its battalion. Machine guns of reserve battalions are never moved so far from the remainder of the reserve battalion that they will not be available to that battalion in case of emergency.

215. Conduct of the Defense.—a. Machine guns located in a forward combat group should not open fire when the enemy scouts or tanks appear. These agents usually precede the enemy main forces into battle. They are not remunerative targets for machine guns.

b. The forward machine guns, especially those under hostile terrestrial observation, should remain silent until the enemy main forces appear.

c. Machine guns located in the rear part of a defensive sector, not under terrestrial observation, may be used for long range harassing and interdiction missions.

d. Machine guns located in forward combat groups that have final protective line missions should not open fire against hostile low flying aircraft because of the danger of disclosing their locations. Other machine guns engage hostile low flying aircraft in accordance with provisions of the fire plan.

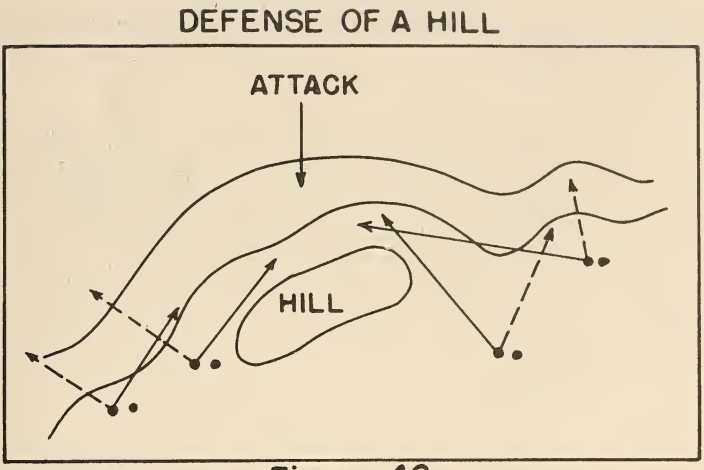


Figure 46

Machine guns in defense of a hill

Defense of a hill.—A hill is better defended from the flanks than by placing guns on the hill itself. The guns are usually placed on the shoulders of the hill or upon adjacent high ground so as to sweep the forward slope with fire which will strike the enemy's probable attack formation in flank.

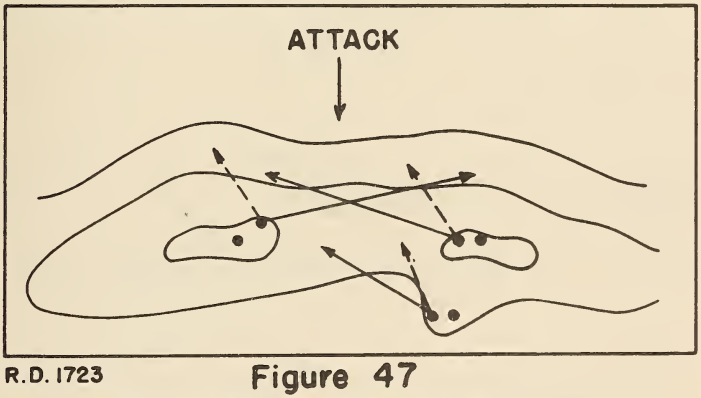
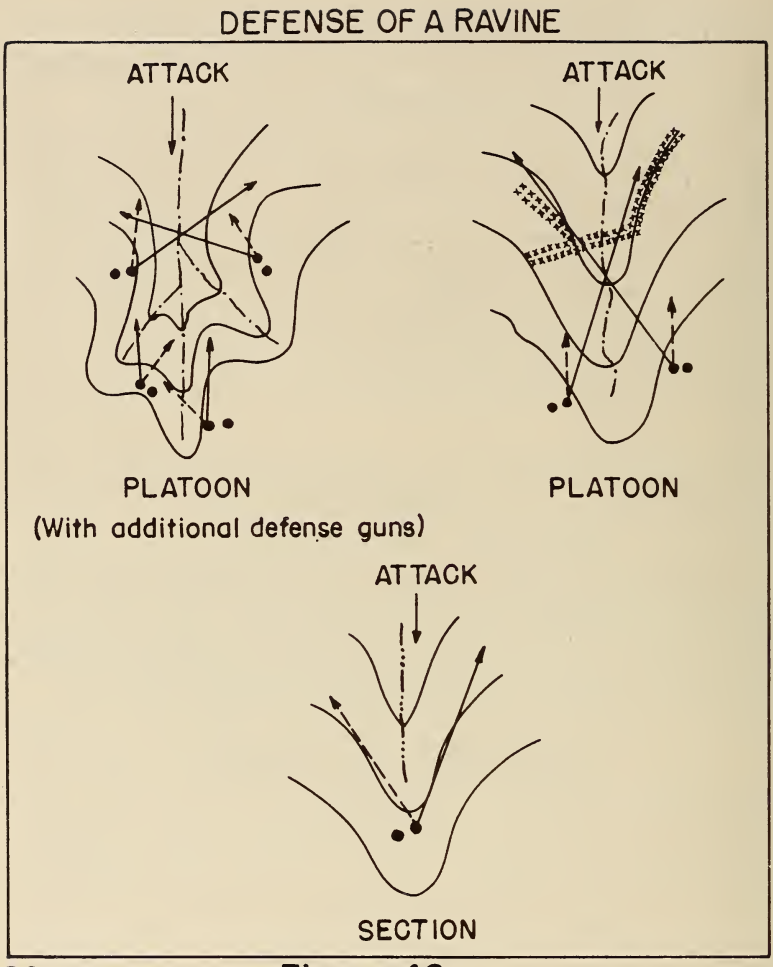


Figure 47

Machine guns in defense of a ridge

Defense of a ridge.—A ridge is best swept by long diagonal bands of fire across its face. Guns farther in rear are placed to enfilade the crest.



Machine guns in defense of a ravine

Defense of a ravine.—Guns are usually placed at the head of important ravines or on the flanks so that they can sweep the sides and enfilade enemy lines advancing to the heights. A large ravine may be closed by placing guns behind forward spurs so as to sweep the entrance and the high ground on the opposite side. Such guns are flanked by guns along the edge of the ravine farther to the rear.

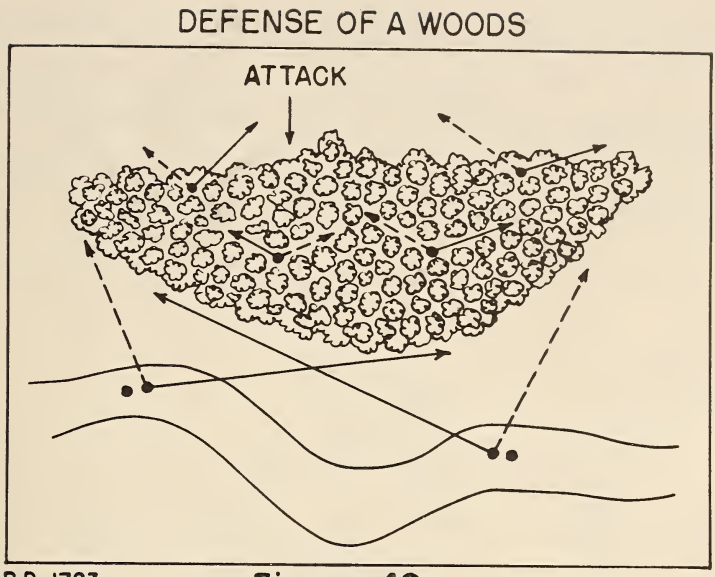


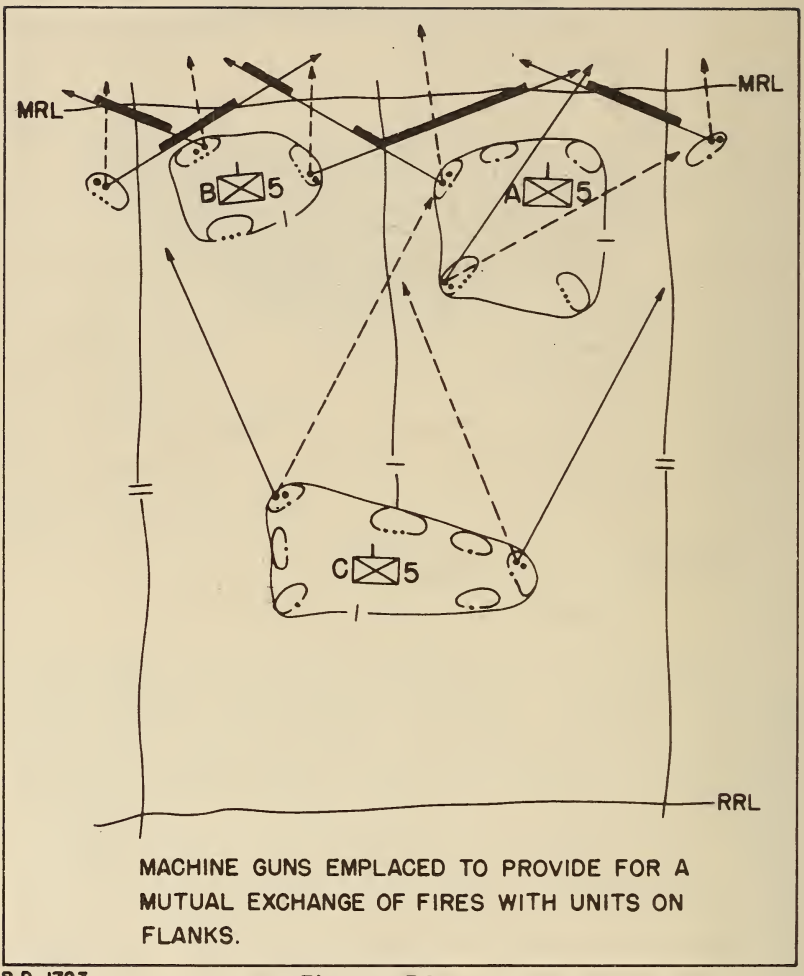
Figure 49

Machine guns in defense of a woods

Defense of a woods.—Woods afford good concealment and free circulation. In large woods interior strong points should be organized. Positions are constructed well inside the edge and on high ground so as to avoid gas pools. Fire lanes 2 yards wide and sloping diagonally forward should be trimmed out of the underbrush. Care must be taken not to cut openings in the tops of the trees which will show on airplane photographs. An attack through woods nearly always results in an uneven advance or comparative disorganization of the attacking forces. Guns sited so as to enfilade the rear and side edges of the woods tend to hold the attacking force within the woods, where artillery fire may be directed upon them. Small woods are very likely to be made the target of hostile artillery concentrations. Machine guns defending a small woods should be sited outside the woods and in such positions that they can sweep its front and flanks.

Diagrams.—The following diagrams are given to show examples of the employment of the machine guns within a defensive area. The sketches are entirely diagramatic and illustrate the conventional method of picturing the machine-gun plan of defense.

The orders for daylight firing within assigned sectors of fire usually prescribe the time of opening fire. These orders may prescribe opening fire at long range or firing may be restricted until the enemy reaches a specified area at closer range. The fire may be held in order to meet the first enemy



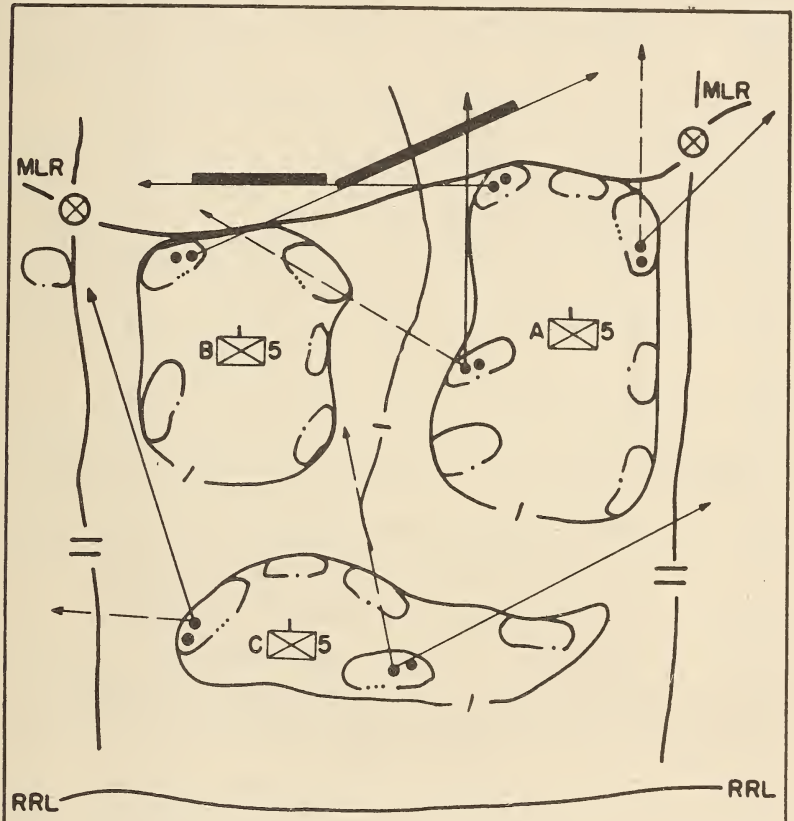
MACHINE GUNS EMPLACED TO PROVIDE FOR A MUTUAL EXCHANGE OF FIRES WITH UNITS ON FLANKS.

R.D. 1723

Figure 50

groups with a volume of deliberately aimed surprise fire. However, the danger of withholding fire for an ideally grouped target, while an opportunity passes to do material damage at longer ranges, must be guarded against.

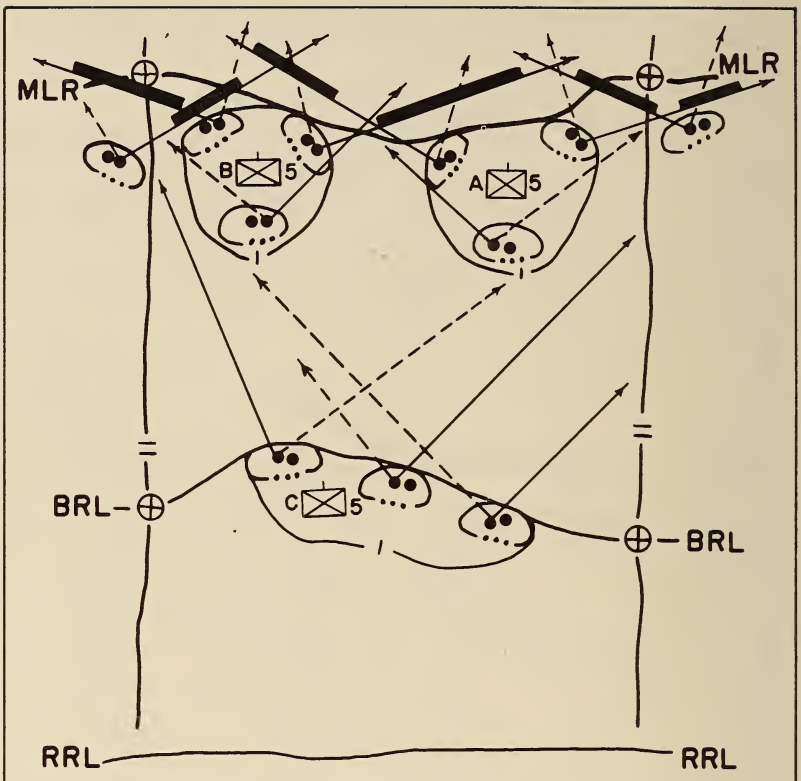
Important targets may be assigned for night firing missions. In assigning such targets they are usually, but not necessarily, within the sector assigned each section for day defense. The time of opening these night fires is prescribed in time schedules, given in oral orders, or controlled by pyrotechnic signals.



MACHINE GUNS EMPLACED TO PROTECT OWN UNITS. DUE TO TERRAIN OR ORDERS, NO MUTUAL EXCHANGE OF FIRES PLANNED. (ADDITIONAL DEFENSE GUNS NOT SHOWN).

RD 3349

Figure 51



Machine guns emplaced within a battalion defense area. Mutual exchange of supporting fires between adjacent battalions is shown. Six additional defense guns used. (Stabilized situation)

RD 1723-1

Figure 52

216. Antiaircraft Missions.—The heavy machine-gun platoons are habitually employed on antiaircraft missions in the following situations:

a. **In bivouac.**—The weapons company commander emplaces machine guns to cover the bivouac area of the battalion, employing all guns of the company. Reliefs are arranged at the guns and constant readiness for action maintained. The commander of the troops establishes an antiaircraft warning system, and the weapons company commander informs gun commanders of the warning signals. Protection of machine guns on antiaircraft defense missions is, where necessary, provided by rifle units of the outpost or other security elements.

b. **In defensive situations.**—Machine guns covering the main line of resistance are not employed on antiaircraft missions. Emplacements are so constructed and camouflaged as to make hostile air attack unprofitable and active defense measures unnecessary. Machine guns assigned to long range missions and removed from the zone of the main line of resistance may be assigned antiaircraft missions. Reserve battalions usually employ their machine guns to protect their own location both in attack and in defense. Dispositions are in general the same as in bivouac.

c. **Antiaircraft protection of motorized columns.**—This protection is furnished by guns mounted on vehicles and distributed throughout the column while it is on the march. During halts the guns may be taken off the vehicles and placed in the best positions available for the protection of the unit to which they are attached. Usually vehicles depend on rapid and individual movement and concealed or camouflaged locations to render hostile air attack unprofitable.

d. **Antiaircraft protection for movements by rail.**—When troops are moved by railroad, machine guns may be assigned antiaircraft missions, by mounting them on the cars in suitable locations. When troops board or alight from the train, or the train stops for prolonged periods, the machine guns take up positions to afford maximum protection.

217. Delaying Action and Withdrawal.—In action following the unsuccessful defense of a position, in a delaying action or in a withdrawal, the machine-gun platoon may be employed as part of the weapons company, as a separate unit, or attached to a rifle unit.

In any case it should operate under the general principles of defensive combat, except that the sections would not be placed in great depth. It would receive orders from the weapons company commander or from the commander of the rifle unit to which attached.

Machine guns are normally attached to a rifle unit in defense when the mission of the rifle unit requires the movement of the machine guns beyond the limit of efficient supply and control by the weapons company commander. Attached machine-gun units receive their orders from the commander of the rifle unit to which attached. Supply of attached machine guns is the responsibility of the rifle unit commander during the period of attachment.

In open terrain, machine guns are the principal elements in delaying action against pursuit by foot infantry.

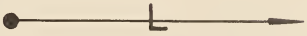
Positions affording long-range fields of fire for the machine guns and covered lines of withdrawal are essential. Usually machine guns engage targets from positions well in rear of rifle companies, leaving close and midrange fires to the light machine gun and other rifle company elements. To protect the withdrawal it may, however, be necessary for machine-gun elements to hold their positions to the last man. Machine guns select supplementary emplacements to cover the close range field of fire, seeking mutual support of machine-gun sections by cross fires.

Early reconnaissance of successive lines of resistance for selection of firing and observation positions and routes of withdrawal thereto are initiated. Carts are utilized wherever practicable for movement of weapons.

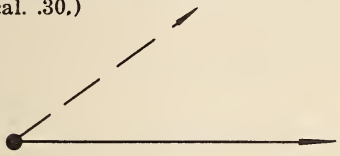
Night withdrawals are most effective and machine guns in the covering force should be able to fire night missions, and assist in deceiving the enemy as to the withdrawal in progress. Close protection of the machine guns should be given by the rifle units, and when this is no longer possible, the machine guns should withdraw. Machine guns farther to the rear, in general support of the battalion, should continue firing until the local covering force withdraws.

218. **Conventional Signs.**—The following conventional signs are listed for the convenience of students in working map problems or terrain exercises.

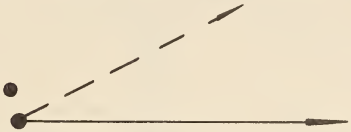
Machine Gun
(Arrow to point in principal direction of fire. When used alone it indicates machine-gun, water-cooled, cal. .30.)



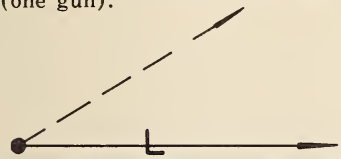
Light Machine Gun
(Arrow to point in principal direction of fire. When used alone it indicates machine-gun, air-cooled, cal. .30.)



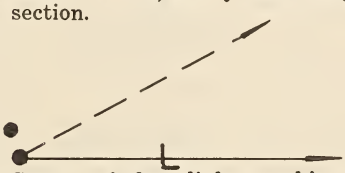
Sector of fire, heavy machine gun (one gun).



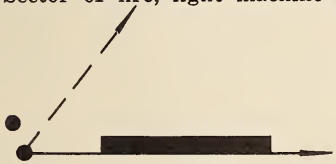
Sector of fire, heavy machine-gun section.



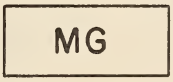
Sector of fire, light machine gun.



Sector of fire, light machine-gun section.



Sector of fire, heavy machine-gun section (shaded portion shows danger space on final protective line).



Normal one machine-gun barrage.

A platoon defense area.

Defense area of two squads.

Defense area of one squad.

Heavy MG Squad
(1st Squad, Co. D 5th Marines.)

Heavy MG Section
(1st Section, Co. D, 5th Marines.)

Heavy MG Platoon
(1st MG Platoon, Co. D, 5th Marines.)

Weapons Co.
(1st Battalion, 5th Marines.)

RD 3349

SECTION 10

THE WEAPONS COMPANY, INFANTRY BATTALION, IN DEFENSE

219. The Weapons Company, Infantry Battalion, Composition and Armament.—The Weapons Company of the Marine Infantry Battalion is the fourth lettered company of each battalion (D, H, M,) and consists of—

a. A Company Headquarters.

b. 1 AA and AT Platoon.

c. 1 81mm Mortar Platoon.

d. 3 Machine-Gun Platoons.

(1) The Company Headquarters consists of a Major, who is the company commander, a captain executive officer, a lieutenant reconnaissance officer and 19 enlisted men who aid in the administration and tactical control of the company. They are armed with 15 rifles and 7 pistols or carbines.

The Company Executive Officer is also specifically designated and trained as company machine-gun officer. Thus when the company commander is absent an officer still remains with the company to control the three machine-gun platoons.

(2) The AA and AT Platoon is organized and equipped as set forth in Par. 153.

(3) The 81mm Mortar Platoon is organized and equipped as set forth in Par. 165.

(4) The machine-gun platoons are organized and equipped as set forth in Par. 190.

220. General. — The Weapons Company comprises the supporting and antitank weapons of the battalion. It is combined under one commander for administrative and training

purposes. While, as hereinbefore explained, the AA-AT Platoon operates tactically directly under the Battalion Commander, the Weapons Company Commander insofar as it is possible retains tactical control of all 3 machine-gun platoons and the 81mm Mortar Platoon. (For detailed employment of the AA-AT Platoon in Defense see Sec. 7.)

221. **Dual Status of Weapons Company Commander.**—A dual relationship exists between the weapons company commander and the battalion commander. The weapons company commander has both staff duties and command duties. As a staff officer he may make recommendations to his commander regarding the use to be made of the weapons company, basing these recommendations upon the announced plan of the battalion commander and considering the powers and limitations of the weapons company. The battalion commander may accept the recommendations in full or may make certain changes; in either case the decision having been made, the weapons company commander ceases to act as a staff officer and, as a troop commander, proceeds to carry out the decision of his superior. This procedure will be used in the field when time permits. When time is short the battalion commander may merely announce his decision to the weapons company commander and direct him to take the necessary actions to properly support the operations. However, the battalion commander usually issues detailed instructions regarding the employment of the weapons company specifying the missions and general dispositions of the units of the company, including the approximate number of machine-gun sections to be placed in forward positions and the number to be placed in rear positions, special missions for the mortars and instructions regarding long range fires, or attachments of weapons to the combat outpost.

222. **Normal Procedure.**—Normal procedure contemplates the organization of the defensive position before contact with the enemy is established, at least six hours being generally considered the minimum time required to so organize a defensive position. The paragraphs immediately following discuss "What A Weapons Company Commander Thinks About" in such situations. Special conditions, (such as the employment of the Weapons Company in withdrawals or in very hasty defensive situations) require somewhat different methods which are indicated in latter paragraphs in this section.

When time is short this normal procedure may result in the Battalion Commander issuing orders to the Weapons Company Commander of the type quoted below:

> "Company H will support the defense. Place heavy machine guns in width and depth to cover the front and flanks of the platoon defense areas along the main line of resistance. At least one platoon will be placed in the rear part of the battalion defense area and will provide

antiaircraft defense when not required for ground missions. Report position areas assigned to the 81mm mortars and their primary target areas. Rifle company commanders have been instructed to coordinate the fires of their light machine guns with the heavy machine guns of the weapons company as requested by you. Submit a sketch showing the plan of fires of all machine guns and the mortar platoon, to include planned long range fires, final protective fires and fires within the position."

Upon receipt of such orders, the Weapons Company Commander proceeds with his estimate of the situation and reconnaissance, reaches his decision regarding how he will employ his platoons to carry out the mission assigned, makes his detailed plan and then issues appropriate orders.

223. Reconnaissance.—Reconnaissance of the weapons company commander covers—

a. The foreground of the position; terrain affording covered routes of approach; terrain features covering possible final assembly positions for hostile forces; firing positions for enemy heavy infantry weapons; defiladed areas.

b. The interior of our own position; location of observation posts covering entire foreground; firing positions for execution of final protective missions and long-range machine-gun and mortar fires (usually not nearer than 400 yards for machine guns and 200 yards for mortars to MLR) facilities for the movement of machine guns into primary positions from supplementary positions; gaps in band of machine-gun fire which must be covered by rifle, automatic rifle, mortar or artillery fire.

c. In his reconnaissance the weapons company commander is assisted by his reconnaissance officer, who should be prepared at all times to advise his company commander as to positions, routes thereto and target areas. The reconnaissance officer supervises the execution of the company commander's orders in connection with the distribution of target areas, computation of fire data, selection and installation of observation posts and establishment of signal communication within the company.

224. Fire Plan.—As a result of his estimate of the situation and reconnaissance, the weapons company commander submits recommendations to the battalion commander for the establishment of the battalion fire plan. He indicates the sectors of fire of the machine guns, the targets or target areas of the mortars, the firing positions of each weapon, and the dead space in the bands of machine-gun fire which cannot be covered by the mortars and should be covered by artillery or rifle companies (Fig. 53.). The fires of the heavy machine guns must be coordinated with rifle and light machine-gun fires of the battalion defense area and every effort made to

cover the entire battalion front with bands of automatic weapon fire. It is also necessary to coordinate heavy machine-gun fires on main line of resistance with similar fires in adjacent sectors. The fires of the mortars are similarly coordinated. The weapons company commander's report is often made in the form of a sketch or overlay. After the fire plan has been approved by the battalion commander, the execution of it is the responsibility of the weapons company commander.

When preparing the fire plan it should be noted that the machine-gun fires in the early stages of the defense of a position are not delivered from the main line of resistance; they are delivered either from guns stationed with the combat outpost, or from rear guns delivering overhead fires from masked positions. Fires from the main line of resistance are withheld until the proximity of the hostile infantry compels its supporting artillery to lift its fires. (For detailed employment of the Machine-Gun Platoon in Defense see Sec. 9.) The fire plan should consider all these types of fires, giving careful consideration to movement between firing positions if that be necessary and should include planned (scheduled) fires for the 81mm mortar platoon in addition to their Primary Targets.

Where time is limited and the weapons company commander does not have an opportunity to prepare a fire plan, the platoons occupy the most available firing positions to give prompt support to the front line or to defend the ground from position on which they are located. Later, following the weapons company commander's reconnaissance, the platoons are redisposed to best advantage.

After plans for the defensive fires have been prepared they must be carefully checked with those of the artillery, and of adjacent units to insure that all parts of the front are adequately covered. Signals must be provided, and all concerned notified, for the laying down of the final protective fires (final protective line, mortar primary targets and artillery normal barrages). Information must be obtained from the battalion commander and the commander of the reserve company regarding any planned counterattacks, and appropriate fires planned and arranged in support of such counterattacks (if and when they are executed). As these plans develop the exact positions of the primary, alternate and supplementary emplacements of the weapons must be checked to insure that the guns and mortars are placed at the exact spots where they can do the defense the most good. Conditions under which movement from primary (or alternate) positions to supplementary positions (for contingent missions) is to be made must be decided and announced to those concerned.

225. **Orders.**—The order of the weapons company commander includes, either in appropriate parts of his complete five paragraph order, or by fragmentary orders, the following points:

a. Hostile and friendly situation.

b. Course of the main line of resistance.

c. General position areas for sections (or platoons where these form separate echelons) of the machine guns and mortars.

d. Machine-gun sectors of fire and mortar targets in front of the main line of resistance; target areas for long-range machine-gun fires; final protective fires; concentrations and target priorities.

e. Conditions for opening fire in each position; measures for antiaircraft defense.

f. Signals for movement from supplementary positions.

g. Priority of construction of emplacements; measures for concealment; communication trenches; camouflage.

h. Ammunition supply.

i. Communications (telephone and light signals).

j. Command posts of the Company and Battalion, and locations of observation posts.

(Note that the general position areas for the weapons are designated by the weapons company commander; the actual selection of the exact spots for the primary, alternate and supplementary emplacements, and the siting of the weapons are the responsibility of the platoon commanders.)

The company commander post should be near the Battalion CP. Communication to platoons is usually by messenger.

226. Priority of Work and Supervision.—Having issued appropriate orders for the occupation, organization and defense of the position the Weapons Company Commander must constantly supervise and inspect to see that his orders are being carried out. The incidental work, such as erection of tactical wire along the final protective lines, clearing fields of fire, digging and camouflaging emplacements, arrangements for observation posts, command posts, communication, and such details all require decisions and definite actions on the part of the company commander.

227. Action During Attack. — During a hostile attack, the weapons company commander continues to observe the action, preferably from a point where the platoons and their fires can be watched. When the situation requires changes in missions or locations of platoons, the weapons company commander directs such changes. Emergency changes are promptly reported by him to the battalion commander. The company commander keeps close contact with the battalion commander throughout the engagement and maintains communication between his observation point and his platoons usually through his messengers.

The actual defense is conducted according to prearranged plans. These plans must be flexible enough to meet the inevitable surprises of combat and are based upon the capabilities of the enemy. After the combat commences these prearranged plans should be carried out. Attempts to devise new plans on the spur of the moment to meet the changing conditions of the battle usually fail. For example, plans of action to be adopted in the event small enemy parties infiltrate to the rear of the defenders' positions should be made and announced in advance. Likewise, if some forward defense areas are lost to the enemy, the defense should continue from the remainder of the areas and the defensive fire plans should have considered (and prepared for) that contingency. Movement of machine guns or mortars while they are actually under fire should seldom be attempted.

If the defender has had at least six hours to carefully coordinate his fires, emplace and camouflage his weapons and clear his fields of fires he should not attempt to change his carefully planned arrangements during the course of the action.

228. **Antiaircraft Missions.**—The heavy machine-gun platoons are habitually employed in antiaircraft missions as designated by the weapons company commander upon orders of the battalion commander.

In bivouac the company commander emplaces the machine guns to cover the area, using all guns. He arranges relief at the guns and sees that they are in constant readiness for action. The commander of the troops in the bivouac area establishes the antiaircraft warning system, and the weapons company commander informs the platoon commanders of the signals. The weapons company commander also arranges for the distribution of his machine guns throughout a column for antiaircraft protection while on the march.

229. **Hasty Defense.**—When taking up a hasty defense, such as during reorganization following an attack, or during lulls in an action, the platoons of the weapons company are often attached to the forward rifle companies. However, they should revert to centralized control as soon as the necessary arrangements can be made, as only under centralized control can these weapons (machine-guns and 81mm mortars) reach their maximum defensive powers.

230. **Delaying Action.**—The machine guns and mortars are usually attached to rifle companies by order of the battalion commander for the execution of delaying missions. There may be situations, however, when the weapons company would be ordered to execute a delaying mission, with rifle platoons attached for protection.

231. **Supply.**—The weapons company commander is responsible for all supplies to his company. He makes provision for them in advance and sees that the company requirements are fulfilled.

232. **Ammunition.**—When possible, ammunition is placed upon the positions. The requirements of the company are anticipated and arrangements made by the weapons company commander in advance. Calls for ammunition are made direct to the battalion ammunition distributing point by the platoon leaders.

233. **Transportation.** — Transportation is provided by hand carts and by four one-quarter ton trucks.

SECTION 11

HEADQUARTERS COMPANY, INFANTRY BATTALION, IN DEFENSE

234. Headquarters Company, Infantry Battalion, Composition and Armament.—The Headquarters Company of the Marine Infantry Battalion consists of—

a. Battalion Headquarters.

b. Company Headquarters.

c. Intelligence Section.

d. Supply Section.

e. Medical Section.

f. Communication Platoon.

(1) **The Battalion Headquarters** consists of a Lieutenant Colonel who is the battalion commander, a Major executive officer who is second-in-command, and the battalion staff.

The Battalion Staff has four sections and consists of a Captain who is the Plans & Training Officer (Bn-3), a lieutenant who is the battalion adjutant and personnel officer (Bn-1) and commands the Headquarters Company; a lieutenant intelligence officer (Bn-2) who is also the battalion gas officer, and a lieutenant supply officer (Bn-4). There are in addition as members of the Staff two naval medical officers, one of whom is the Battalion Medical Officer and commander of the Medical Section. There are also two lieutenant liaison officers who maintain liaison between Regimental and Battalion headquarters and are available for liaison with adjacent units. The weapons company commander and the lieutenant who commands the Communication Platoon, also serve as staff officers in addition to their command duties.

Twelve enlisted men, headed by a Sergeant Major, assist with the administrative duties, handle the Headquarters Mess and drive the 4 trucks assigned as battalion weapons carriers.

(2) **The Company Headquarters** consists of the Battalion Adjutant and 14 enlisted men, who are the clerks, cooks and field musics for the entire company.

(3) **The Intelligence Section** has 12 enlisted men, headed by a platoon sergeant who is chief of section. There are three corporals, one of whom is the chief observer, one is chief scout and one a draftsman. Of the 8 privates, 4 are observers, one is a recorder and clerk and three are scouts.

(4) **The Supply Section** has six enlisted men, headed by a Supply Sergeant. Four of the men are clerks and two are assigned to general supply duties.

(5) **The Medical Section** consists of 20 enlisted men of the Navy Medical Corps.

(6) **The Communication Platoon** is commanded by a Lieutenant who is the Battalion Communications Officer. The Platoon consists of—

(a) Platoon Headquarters.
(b) Message Center and Messenger Section.
(c) Wire Section.
(d) Radio, Visual and Panel Section.

(7) The Platoon Headquarters consists of the Lieutenant platoon leader, a technical sergeant who is Communication Chief and one private.

(8) The Message Center and Messenger Section consists of one Sergeant Chief of Section, a Corporal who is the code clerk and six Privates, one of whom is a clerk and 5 messengers.

(9) The Wire Section consists of a Sergeant Chief of Section, three Corporals who are wire team chiefs and 11 Privates, six of whom are linemen, three switchboard operators and two truck drivers.

The Radio, Visual and Panel Section consists of a Sergeant Chief of Section, two Corporals and four Privates who are operators (radio, visual and panel).

The armament of the Headquarters Company consists of 2 pistols, 27 carbines and 64 rifles.

235. General.—In a defensive situation the 115 officers and men of the Headquarters Company are employed by order of the Battalion Commander in a manner best suited to carry out their assigned missions.

236. Battalion Headquarters.—a. **The Battalion Commander** is responsible for the occupation, organization and defense of the area assigned his Battalion by higher authority, or ordered by the Battalion Commander himself pursuant to his general mission and developments in the situation. Depending on these factors the latitude exercised by the Battalion Commander may vary within wide limits. (For detailed

employment of the Infantry Battalion in Defense see Section 12.)

b. **The Battalion Executive Officer** is also second-in-command of the Battalion. He coordinates the work of the staff and serves as principal assistant to the Battalion Commander. During the conduct of the defense he may remain with the Battalion Commander, but usually they would be separated; for example, if the Battalion Commander was at the observation post the Executive would be at the command post, and vice versa.

c. **The Battalion Plans and Training Officer (Bn-3)** is the assistant to the Battalion Commander on matters pertaining to tactical operations. He makes the necessary reconnaissances and confers with other staff officers and the company commanders. He is prepared to submit recommendations at all times for the defense or improvement in the defense of the area and assists in the preparation of orders under the direction of the Battalion Commander. From Bn-1 he learns the effective strength of the Battalion. From Bn-2 he learns the dispositions and capabilities of the enemy. Bn-4 advises him as to the state of affairs concerning the battalion supply. He gets first-hand information direct from the company commanders and transmits orders direct to them in carrying out the Battalion Commander's plan of defense. When not otherwise engaged he remains in close proximity to the Battalion Commander.

d. **The Battalion Adjutant and Personnel Officer (Bn-1)** commands the Headquarters Company and keeps up-to-the-minute records on the Battalion personnel. He must be able to advise the Battalion commander on the effective strength of the Battalion at all times. He handles the administrative details of the Battalion. He shares with the Communication Officer the duty of supervising the operation of the command post.

e. **The Battalion Intelligence Officer (Bn-2)** keeps the Battalion commander appraised of the dispositions, strength and capabilities of the enemy forces confronting the Battalion. This he does through his observers and scouts, by contact with and cooperation of the front line company commanders and reports from higher and adjacent units. Outposts. patrols, raids and reconnaissance under cover of darkness, prisoners and other means are utilized by the Battalion commander to obtain information. The intelligence details are worked out by the Intelligence Officer, the information obtained evaluated and the intelligence journal kept up to the latest developments.

The Intelligence officer is also the Battalion Gas Officer and is responsible for the battalion's defense against chemical attack. He arranges for the gas alarm and provides the warning or signal system. He arranges for the decontamination

of gassed areas. When not otherwise engaged the Intelligence officer will probably be found at the command post or at an observation post. He should be prepared to take over the duties of the battalion operations officer.

f. **The Battalion Supply Officer (Bn-4)** is responsible for the procurement and issuance of all supplies for the battalion. He is usually with the rear echelon of the battalion.

g. **The Battalion Liaison Officer** of whom there are two, are employed by the Battalion commander to effect liaison with Regimental headquarters and in some instances with adjacent units. The necessity for the closest team-work and coordination of the units comprising the defense requires liaison between the headquarters of the organizations involved. When at Regimental headquarters or the headquarters of adjacent units, the liaison officers not only keep the commanders informed of their own units' activities, but observe the activities of the organizations to which they have been sent and keep themselves prepared to transmit full information to their battalion commander.

h. **The Battalion Medical Officer** and his assistants are responsible for maintaining the battalion aid station and of rendering every assistance to the wounded and the sick, and for their evacuation to field hospitals in conjunction with the Medical Battalion.

237. **Company Headquarters.**—The field musics and other enlisted men of the Company Headquarters available for messenger duty accompany the Battalion Commander or are assigned by him to other officers of the Staff.

The clerks and cooks are stationed with the rear echelon which is usually located well back from the forward areas in a covered and protected position permitting the carrying on of the battalion administrative work and the preparation of food.

238. **Intelligence Section.**—The Platoon Sergeant, Chief of Section, supervises the employment of the Intelligence Section personnel under the direction of the Battalion Intelligence Officer.

Five observers, including the Corporal Chief Observer, are available for duty at the battalion observation posts.

One scout from the Intelligence Section may be assigned to each rifle company and assists with the collection of intelligence data. Their work is coordinated by the Corporal Chief Scout.

The Corporal draftsman remains at the Battalion CP and is in charge of the situation maps. He also makes overlays and sketches under the direction of the Battalion Commander or a staff officer.

The Recorder and Clerk is likewise at the Battalion CP and is charged with the maintenance of the battalion journals, and such other clerical duties as may be assigned him.

239. **Supply Section.**—The Battalion Supply Section, consisting of 6 men, is engaged more in administrative duties in connection with supply than in the actual handling of supplies. Of the six men, one is a Supply Sergeant and three are clerks, leaving two men for general duty. The section functions under the direction of the Battalion Supply Officer and is responsible for the procurement and issuance of all supplies for the battalion. The impetus of supply, however, is from the rear, supplies being delivered to the battalion defense area by the supply agencies of the Regiment. The Battalion Supply Section arranges for their distribution to the companies.

240. **Medical Section.**—The Medical Section functions under the direction of the Battalion Medical Officer and his assistant. Of the 20 Navy hospital corpsmen available for duty, two may be assigned to each company of the battalion and the remainder are on duty at the battalion aid station.

241. **Communication Platoon.**—The Communication Platoon operates the Battalion communication system within the battalion defense area. Communication is maintained with higher authority and with adjacent units and in a stabilized defensive situation quite elaborate communications may be installed with the subordinate units.

The Message Center and Messenger Section is the clearing house for all messages sent or received by the Battalion commander.

The Wire Section is responsible for the laying and maintaining of telephone wires between the OP's and CP and to other units within the battalion defense area and to adjacent units when telephonic communication with them is desired by the Battalion commander. Normally, communication facilities are provided by the higher authority to its subordinate units, thus the wire from the Regimental command post to the battalion command post would be layed and maintained by the Communications Platoon of the Regimental Headquarters and Service Company.

The Radio, Visual and Panel Section operates the battalion radio equipment, furnishes signalmen for semaphore messages and lays out the panels for communication with aircraft.

242. **Transportation.**—Two one-quarter ton trucks are assigned the Headquarters Company, for the Communication Platoon.

SECTION 12

THE INFANTRY BATTALION IN DEFENSE

243. The Infantry Battalion, Composition and Armament.—The Marine Infantry Battalion consists of—

a. Headquarters Company.

b. Weapons Company.

c. 3 Rifle Companies.

For composition and armament of the Headquarters Company see Par. 234.

For composition and armament of the Weapons Company see Par. 219.

For composition and armament of the Rifle Company see Par. 119.

The total strength of the Battalion consists of 36 officers, of whom two are Naval medical officers, and 895 men, of whom 20 are Naval hospital corpsmen.

The total armament of the Battalion consists of:

176 Carbines, .30 cal., M1. (Pistols will be furnished until carbines are available.)

27 Dischargers, grenade.

24 Heavy Machine Guns, cal. .30.

6 Light Machine Guns, cal. .30.

12 Thompson Submachine Guns.

2 AA-AT Guns, 20mm. (Cal. .50 or 37mm guns will be furnished until new 20mm AA-AT gun is available.)

31 Grenade launchers, M1.

6 Mortars, 60mm.

4 Mortars, 81mm.

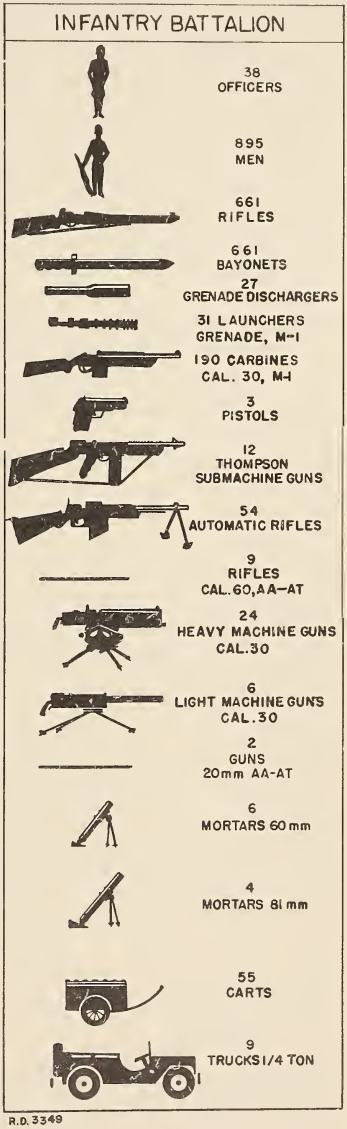
3 Pistols.

667 Rifles.

667 Bayonets.

62 Automatic Rifles.

9 Antitank Rifles, cal. .60.



Should the rifle squads be increased to 13 men, the total enlisted strength of the Battalion would be increased from 895 to 994 men. The officer strength would remain the same, 36 USMC and 2 USN, or an aggregate strength of 1,032.

The Battalion is commanded by a Lieutenant Colonel, with a Major as Executive Officer and second-in-command. It is the smallest tactical unit with a Staff. (For detailed employment of the Battalion Staff in defense see Section 11.)

244. General.—The Battalion takes up the defense when it is ordered to do so by higher authority or when it is necessary to do so pursuant to the general mission assigned the Battalion or as a result of developments in the situation.

When the Battalion is part of a larger force, the area it is to occupy, organize and defend will be assigned to it by higher authority, along with specific orders for the part it is to play in the defense. When the defense is assumed on orders of the Battalion Commander, the area to be defended will, insofar as it is practical, be selected by the Battalion Commander. Depending on these factors the latitude exercised by the battalion commander may vary within wide limits.

The area to be defended by a battalion will vary in size according to the character of the terrain. The battalion frontage will vary from 800 to 1,500 yards, each company on the main line of resistance defending a front of from 400 to 600 yards. The depth of the company areas will also vary from 400 to 600 yards, while the total depth of the battalion area will range from 700 to 1,200 yards. (Fig. 1.) Terrain and defense are inseparable, for it is the terrain that is defended and denied to the enemy. The commander ties in his defense position with the terrain and takes every advantage of it. One of his first considerations is to determine the key point, usually a terrain feature, which, if captured, would give the enemy necessary observation to continue attack against regimental reserve area. The possession of this point is vital to the success of the defense of the battle position.

Upon receipt of the regimental defense order, or when confronted with a situation requiring the assumption of the defensive, the Battalion Commander studies his map, confers with members of his staff (determines the key point and favorable avenues of hostile approach; formulates tentative plan of defense and route of reconnaissance.

The tentative plan of defense is the distribution of rifle companies to combat echelon and reserve, pending the formulation of his defense plan and issuance of battalion defense order.

In any event, the Battalion Commander will make a reconnaissance and estimate of the situation confronting him, decide upon a plan of defense consistent with the orders given him by higher authority, or, if acting alone, to meet the situation, issue the necessary orders to carry it out and supervise the conduct of the defense.

245. Reconnaissance.—Wherever practicable, the occupation of a defensive position is preceded by the personal reconnaissance of the battalion commander, accompanied by the artillery liaison officer when artillery is in support of the battalion, the commander of the heavy weapons company, and such other personnel as he may direct.

a. The reconnaissance bears first upon the terrain of hostile approach. It seeks to determine:

(1) Areas which afford covered approach to the position or which could be used to screen the location of hostile reserves and supporting weapons.

(2) Obstacles and exposed stretches of terrain over which the enemy must pass, especially crests, edges of woods, village exits and defiles.

(3) Commanding features of the terrain which may be expected to be occupied as hostile observation posts; and areas within the defensive position which would be exposed to hostile observation.

(4) Terrain features in the foreground which in friendly possession would screen important defensive areas from hostile observation, favor long-range fire action, and constitute the best available positions for security detachments.

(5) Defiladed areas where hostile forces might assemble for attack within the range of friendly supporting weapons.

b. The detailed reconnaissance of the defensive position or area seeks to determine:

(1) Points from which observation of the foreground of the position can be most effectively carried out.

(2) Locations from which approaches to the position can be most effectively swept by frontal and flanking fire.

(3) Masks within the position which can be used to screen the location of reserves, the emplacements of antiaircraft and heavy weapons, and the approaches from the rear.

(4) Areas most menaced by probable avenues of hostile approach and fronts along which artificial obstacles to tank attack are most necessary.

(5) Areas especially vulnerable to gas concentrations.

246. Plan of Defense.—As a result of the Battalion Commander's reconnaissance and estimate of the situation he arrives at a decision as to how best to defend the area and accordingly perfects a plan to carry it into effect. The plan will include provisions for:

a. Security.

b. Combat Intelligence.

c. Distribution of troops and weapons.

d. Organization of the ground.

e. Defensive fires.

f. Counterattack.

g. Communication.

247. Security.—In developing his plan for security, the battalion commander will be influenced by the security provided by higher echelons. In some instances the division commander will have detailed a covering force to protect the command while the defensive position is being organized. Such an outpost may or may not be retained as a part of the organized division defensive system. In such cases, the battalion commander ordinarily would not detail a battalion outpost during the period of protection by division troops, except for local security. However, some situations may necessitate the establishment of a battalion outpost in addition to the covering force of a higher echelon, as for instance, when a division outpost, by reason of its distance to the front of the position, cannot give complete protection to the battalion position.

Under certain circumstances the battalion may be directed to provide an outpost for its defense area. Under other circumstances, as for example, when no divisional outpost has been established or when it has been withdrawn prior to hostile contact, the battalion commander, in the absence of instructions, must establish outpost protection on his own initiative.

The instructions of the battalion commander to the commander of the combat outpost cover:

a. Information relative to the enemy and friendly troops, especially as to any friendly troops operating in front of the outpost; artillery and heavy weapons support.

b. What the battalion as a whole is going to do while the outpost is on duty.

c. Position and mission of the outguards; any special patrols to be sent out.

d. Conduct in case of attack; method and time of withdrawal; action on completion of mission; antitank defense; long-range fires.

e. Administrative arrangements.

f. Communications; signal light conventions.

The security normally established under battalion control is called a "combat outpost." It is usually placed on high ground about 600 yards to the front of the main line of resistance.

248. **Combat Intelligence.**—The development of the battalion intelligence plan is the function of the battalion intelligence officer who receives a directive from the battalion commander as a basis for the plan. This directive consists of an announcement by the battalion commander of the essential elements of enemy information for the particular time and situation. (For detailed employment of the Battalion Intelligence Officer and Intelligence Section, see Pars. 236 and 238.)

249. **Distribution of Troops and Weapons.**—a. **Rifle companies.**—Rifle companies should be assigned sectors (defensive areas) which will most effectively protect the battalion keypoint by covering with fire the routes of enemy approach to this keypoint. The platoons of each company are disposed to protect the machine guns of the battalion, and should be distributed in width and depth throughout the battalion sector. The number of rifle companies which are to occupy defensive areas on the main line of resistance will depend upon the terrain, the situation, and the width of the battalion sector. Whenever the terrain, frontage and situation permit, it is desirable to place two rifle companies on the main line of resistance and one in reserve. This disposition will develop maximum fire power in front of the position and also allow the designation of a suitable reserve. However, if the battalion sector is unusually wide or of poor defensive terrain, a greater number of the rifle company combat groups should defend the main line of resistance and a smaller number are used for the close in defense of the battalion keypoint. Likewise if the sector is narrow a smaller portion of the rifle strength may be assigned to defensive areas on the main line of resistance and a greater portion may be placed in the battalion reserve area. The width of the sector allotted a rifle company depends upon the natural strength of the terrain. Units defending on difficult terrain are given narrow sectors while units defending terrain easily covered by fire are given wider sectors. Where, however, a portion of the battalion defense area is exposed to hostile observation and fire, such area may be left unoccupied and covered by fire from the occupied area, the heavy weapons, and the artillery. In this case distribution in depth (successive companies) is indicated. In all cases rifle companies are assigned definite tactical localities for defense. These localities are so assigned to provide the best possible cohesion between the respective platoon defense areas which will be located therein.

b. **Weapons company.**—(1) Machine-gun platoons.—The cal. .30 heavy machine gun is the most effective defensive weapon at the disposal of the battalion commander. Since the three platoons of cal. .30 machine guns are a part of the battalion weapons company, the battalion commander is assisted in preparing plans for their employment by the weapons company commander. (See Sec. 9.)

As hereinbefore stated, machine guns form the skeleton of the battle position. The battalion commander builds his defense upon them. While he has the benefit of the techincal assistance of his weapons company commander, the responsibility for the employment of the guns is his. He must personally select or pass upon the selection of machine-gun positions by his weapons company commander.

The heavy machine guns are distributed for the execution of three missions:

(a) Long-range fire from positions other than those in the main line of resistance.

(b) Close defense of the main line of resistance by reciprocal flanking action, covering the front of the position by continuous interlocking bands of fire, in combination with the light machine guns.

(c) Rear defense of the battalion area, stopping hostile elements which may have penetrated the main line of resistance. These guns may also deliver long-range fires in front of the position. Machine-gun platoons placed in the rear area are usually given antiaircraft missions for the protection of the battalion defense area against hostile air attack.

Consideration is also given to positions for the machine guns for the support of possible counterattacks.

(For detailed employment of the Machine-Gun Platoons in Defense see Section 9.)

(2) 81mm mortar platoon.—The battalion commander plans to employ his 81mm mortars to cover critical gaps in the final protective lines of his heavy machine guns which are not covered by other weapons, to cover important approaches to the position, particularly those which are difiladed from the fire of flat trajectory weapons and light artillery, to fire concentrations within the position, and to support counterattacks. Position areas for mortars are selected by the battalion commander. These areas must be such that mortars emplaced therein can accomplish the fire missions assigned to them. In addition, the areas should be sufficiently far in the rear part of the battalion position that the weapons will not be forced to displace in order to fire into forward combat groups that have been captured by the enemy. Mortar positions must be convenient to good observation points in order that the mortar fire may be controlled and quickly applied to targets of opportunity. Also, it is desirable that they be easily accessible to ammunition vehicles. Generally they are within 500 yards of the main line of resistance. They are usually distributed over a depth of from 100 to 200 yards. Exceptionally, where the battalion occupies an extensive front or in close terrain where visibility is poor, mortars may be attached to rifle companies. (For detailed employment of the 81mm Mortar Platoon in Defense see Section 8.)

(3) AA-AT platoon.—The battalion commander's plan for the employment of his AA-AT Platoon considers the measures necessary for the defense of his MLR against hostile tank attack. The plan should provide for the coordination of all the fires of such regimental antitank guns as may be attached and located in the battalion defense area. In its elaborate aspects, the plan calls for the extensive development of active and passive measures, and a coordination between these measures. (For detailed employment of the AA-AT Platoon see Section 7.)

250. Organization of the Ground.—In his plan for the organization of the ground, the battalion commander fixes the exact course of the main line of resistance, and with the assistance of the weapons company commander locates the emplacements and defines the sectors of fire of the machine guns, mortars and antitank weapons covering the main line of resistance. (Fig. 53.) He usually locates a dummy position of resistance not closer than 500 yards to the true position and prescribes the works to be constructed. Construction of the dummy position commences simultaneously with the true position and progresses concurrently with it. The plan includes provision for concealment, cover and protection for the troops and weapons. It contains the battalion commander's decision as to the type of work to be undertaken and the priority in which the work is to be done. When the time available for organizing the ground is limited, the plan provides only for clearing fields of fire and construction of individual cover (foxholes or slit trenches) for all members of the command. When ample time for an organization of the position can be foreseen, the plan may provide for elaborate trench construction, tank obstacles, extensive wire erection, highly developed camouflage for the protection and comfort of the defending garrison. A well developed plan of ground organization adds to the combat strength of the battalion.

The battalion commander exercises close supervision over the work of organizing the ground and takes action to prevent local congestion of installations, emplacements and combat positions. He usually delegates supervision of the construction of accessory defenses to the weapons company commander. Where practicable he checks the camouflage of field works against air photographs of the position and takes such corrective actions as may be necessary.

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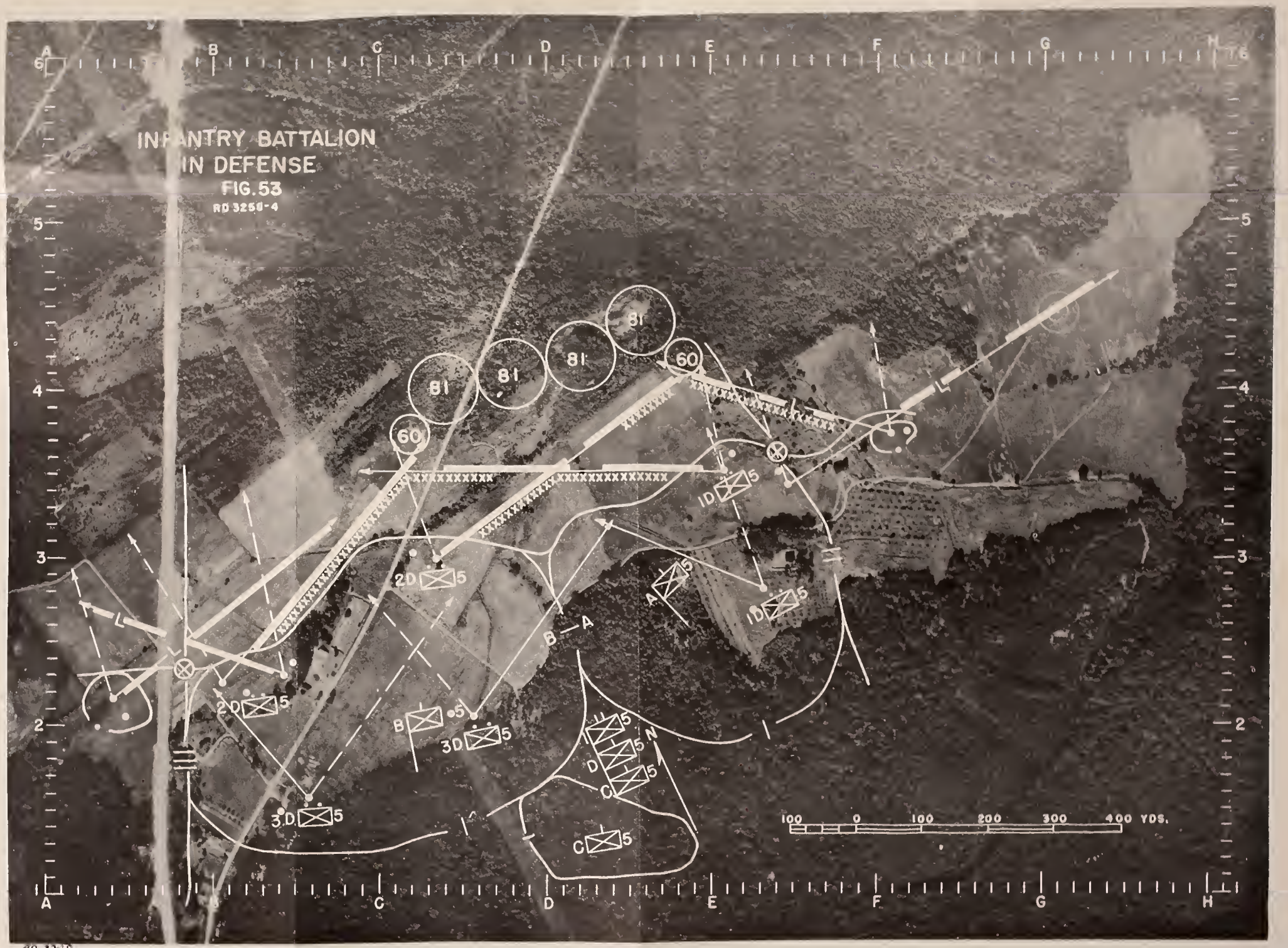
INFANTRY BATTALION
IN DEFENSE
FIG. 53
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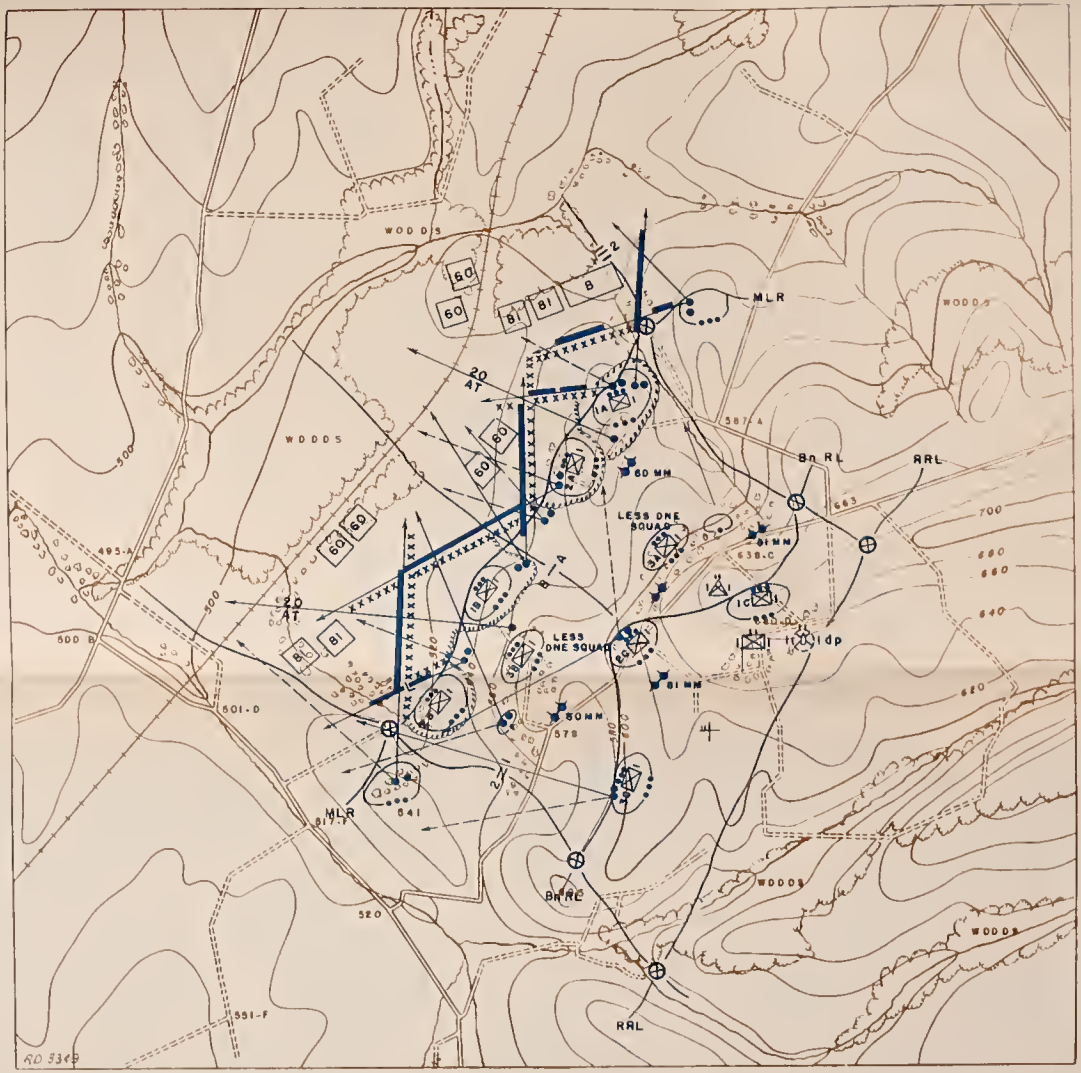
251. Defensive Fires.—The fire plan of the battalion commander provides for the distribution and coordination of all organic battalion fires and the fires of all supporting weapons so as to develop their maximum effectiveness. (Fig. 54.) Since the power of the defense largely depends upon effectiveness of defensive fires, the importance of the careful development of the fire plan appears obvious. The development of the plan involves the siting of weapons and the assignment of sectors and areas of fire so that all the area in front of the battle position can be covered by some type of destructive fire and that fire can be delivered against the enemy if and when he succeeds in penetrating any part of the position. Thus, it is essential that the battalion commander make a careful analysis of the fires of subordinate units to avoid and eliminate duplication, to assure that all areas are covered, to see that fires give mutual protection to adjacent weapons and units, to assure the maximum development of flanking fires, and to see that fires are capable of being switched and shifted to meet unexpected developments in the enemy attack.

The battalion fire plan also includes provision for long range fires. These are delivered by the outpost and elements attached thereto for long-range fires; and by machine guns firing from positions in rear of the main line of resistance. Machine guns firing from positions to the rear of the main line of resistance may, depending on range and the location of the several defensive elements, fire on areas in advance of the outpost, in the outpost position after withdrawal of the outpost, and on the zone between the outpost and the battle position.

The fire plan likewise includes provisions for final protective fires. At least one-half of the heavy machine guns are assigned to positions and fire missions flanking the fronts of the main line of resistance. Their fires are combined with those of the rifle company light machine guns so as to cover the front with continuous bands of fire.

The most urgent missions in the main line of resistance are satisfied first and fires within the position last. Portions of the plan are established concurrently by different agencies. Minor alterations of the original arrangements are frequently necessary.

In addition to coordinating the organic battalion fires, the battalion commander coordinates the positions of artillery normal defensive barrages which have been allotted for the close-in protection of his battle position. Areas which cannot be swept by flanking fire by machine gun are designated as positions for the artillery defensive barrages and for the normal defensive concentrations of the battalion 81mm mortars. In the coordination of these close-in defensive fires the characteristics of the weapons are considered, and assignment of barrage positions are made in accordance with these



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Infantry Battalion in Defense

Fig 54

characteristics. This assignment of barrage positions gives preference to the high angle mortar fire in dense woods and in dead spaces which are difficult for the flat trajectory artillery weapons to cover.

Artillery fires in close support of the main line of resistance are not placed closer than 200 yards to the MLR for 75mm and 350 yards for 105mm. The normal barrage covers an area of approximately 100 × 200 yards, while the emergency barrage covers 100 × 300 yards, (75mm). (Fig. 53.) The barrages are definitely located by the battalion commander with the assistance of the artillery liaison officer. Long range fires, concentrations in support of the outpost and for interdiction, are plotted and numbered, and registered if practicable.

The plan of artillery fires may be prepared upon order of the Battalion Commander by the artillery liaison officer, who submits it to the Battalion Commander for comments and approval. It includes a firing schedule and the various numbered concentrations are fired upon call of the Battalion Commander, or by such other means as he may designate.

The plan of defensive fires includes arrangements for firing on low-flying hostile aircraft. Antiaircraft missions are normally assigned the caliber .30 machine guns which are located in rear of the main line of resistance. When conditions warrant, certain machine guns in rear of the main line of resistance should be given the primary mission of firing on hostile low-flying aircraft. These guns occupy good antiaircraft firing positions and are kept in complete readiness to engage enemy aircraft within effective range.

The conditions under which the various fires are to be delivered, including the signals for prearranged fires, their duration, the method of obtaining their repetition or continuance, the persons authorized to call for them, the units responsible for their delivery, and the areas automatically affected by calls for the various fires, are specially prescribed in the fire plan. Where practicable, fires are registered.

252. Counterattack.—Because it is executed during the defensive battle, the battalion counterattack is, in fact, a phase of the conduct of the defense; but since it involves a special and extensive development, it is treated as a separate subordinate part of the general defensive plan. While the hypotheses for the counterattack and the conditions under which it is to be launched are prescribed by the battalion commander, the details of the plan, except as pertain to the action of supporting units, are developed by the commander of the unit which is to make the counterattack. Indeed it usually will be necessary to prepare several plans to meet varying conditions, one plan of counterattack rarely being sufficient to cover all contingencies. The complete battalion counterattack plans, with the prescribed scheme of coordination, is the responsibility of the battalion commander.

The Battalion Commander's complete plans for counterattacks provide:

(1) Line of departure and route of approach.
(2) Formations.
(3) Scheme of maneuver.
(4) Objective.
(5) Initial location and employment of machine guns, mortars, AT guns.
(6) Artillery support.
(7) Initial targets or barrages.
(8) Signal to lift fires.
(9) Subsequent fires.
(10) Communications.
(11) Location of command post.

A counterattack is delivered when there are troops available for it; when vital terrain is lost or threatened; when lower units have no counterattack force available; when all available fire has been used. Otherwise, every effort is made to block the penetration. Indeed, troops that are dug in, in good firing positions, in sight of the enemy, are seldom used for counterattack; they can do more good by firing from their prepared positions. However, if a mobile reserve has been held out, or the reserve is not able to fire on the enemy from its prepared positions, it may be considered as available for counterattack.

Supporting fires for the counterattack are planned by the Battalion Commander by his break-through machine guns and mortars in rear positions. Forward mortars continue assigned fire missions in front of the MLR. Weapons Platoon of Reserve Company reinforces the Battalion Weapons Company.

253. Communication.—The battalion communication plan is the plan for the installation, operation, and maintenance of the battalion communications. The responsibility for developing the communication plan rests with the battalion communication officer, who commands the battalion communication platoon. This officer develops the technical phase of the plan in accordance with the general tactical plan of the battalion commander.

As a directive to the communication officer, the battalion commander announces the location of the battalion command post (and when appropriate, the company command posts), and the type and extent of the communications to be installed. Acting on this directive, the communication officer develops and executes the technical aspects of the plan. Since the location of the battalion command post is usually prescribed by the regimental commander, the announcement of its location by the battalion commander serves to advise the

subordinate unit commanders where to communicate with their superior. The exact position of the command post on the terrain, within general limits of the prescribed location, is a decision of the commander, who, in arriving at his decision should consult the communication officer and receive his recommendations. An ideal command post location is one which provides cover and concealment against hostile observation and fire, both ground and air. It should be centrally located in the rear part of the battalion area, generally in rear of the battalion reserve company position. It should be in proximity to routes leading to the location of superior and subordinate units. When consideration in the selection of the position conflict, that position which best facilitates the operation of the command post should govern.

254. Battalion Defense Order.—After the battalion plan of defense has been completed, in whole or in part, it is announced to the subordinate units in the form of battalion orders. If the order covers only a part of the plan the detailed development of other elements of the plan is continued and as they are completed they are announced to the command in subsequent orders. It is therefore evident that the completeness of the battalion orders is dependent upon the completeness of the battalion plan. From this consideration it becomes evident that orders may be issued in either fragmentary or complete form depending upon the status of the battalion commander's defensive plan at the time the order is issued.

The battalion order covers:

a. Information relative to the enemy and friendly troops, including the mission of the regiment, units on the flanks of the battalion, covering forces, artillery, antitank and aviation support.

b. General plan of defense; boundaries of battalion defense area; exact course of the main line of resistance; distribution of rifle units to combat echelon, reserve, and where necessary, the combat outpost; any attachments to rifle companies.

c. Detailed instructions to rifle companies; missions and distribution of heavy machine guns; emplacements and target areas of battalion mortars; emplacements and sectors of fire of antitank weapons.

Security elements; location and mission of combat outpost and advance detachments.

d. Supply; location of battalion ammunition point; aid station, arrangements for ammunition distribution, including amount to be dumped on the position if required; disposition of carriers and unit trains.

e. Communications; location of battalion command and observation posts and message center; telephone and radio,

light wire local systems, panel stations and dropping grounds, signal light connection.

The provisions of the battalion defense order are amplified by more or less detailed plans including: fire plan, plan of ground organization; counterattack plan; plans of antitank and antiaircraft defense.

255. Occupation of Position.—The method of occupation of a defensive position varies with the situation. Where conditions permit, troops are placed in a position of readiness with proper provision for security, pending the reconnaissance of the battalion commander. Necessity for immediate readiness for action may, however, require the prompt deployment of the troops and the occupation of positions on the basis of information immediately available. In such case, the battalion commander distributes the rifle companies to the combat echelon and the reserve, defines the general location of the main line of resistance, attaches a portion of the heavy machine guns to rifle companies, and assigns sectors of fire to the mortars and long-range missions to the heavy machine guns remaining under his control. In the continued occupation of the position, these initial measures are readjusted and expanded in accordance with the general procedure of more deliberately organized defense.

256. Reserve Company.—The missions assigned to a reserve company vary with the nature of the terrain of the defensive position and the situation. According to circumstances, a reserve company may be employed:

a. As a mobile unit for counterattack against hostile elements penetrating the battalion sector; or for the occupation of provisional flank positions in case of hostile penetration of an adjacent sector.

b. As a holding force, extending in depth the zone of resistance constituted by the front-line companies.

The battalion commander should decide carefully which of these two missions will be assigned to his reserve company, for having been given one of these missions, the company probably would not be able, during battle, to perform the other.

The battalion commander fixes the location of a company held in mobile reserve. He designates provisional departure positions for counterattack against hostile elements penetrating the battalion area and flank lines of resistance to be occupied in case of penetration of an adjacent sector.

The position of the battalion reserve is frequently in proximity to the position of regimental antitank guns supporting the battalion. Where this is the case, provision should be made for coordinating the dispositions and plans of the reserve with the contemplated antitank action. Protection of the antitank guns against hostile infantry may automatically result

where a reserve company extends in depth the dispositions of the combat echelon. A reserve company held mobile for counterattack should, where feasible, occupy departure positions naturally impracticable for tank movement or rendered so by artificial means. The counterattack is launched, after the passage of hostile tanks, against the hostile infantry following.

The battalion commander prepares the heavy weapons fire support of counterattacks. Heavy machine guns assigned as breakthrough guns and mortars in rearward positions establish a supporting fire base. Forward mortars, where practicable, continue on their assigned fire missions in front of the main line of resistance, taking rearward enemy elements under fire. The weapons platoon of the reserve company reinforces the heavy weapons fires.

The reserve company does not ordinarily move into an adjacent sector to counterattack hostile elements, penetrating that sector. In this situation it seeks to protect the battalion area from being rolled up from a flank by occupation of a position blocking off the penetrating elements.

The battalion commander prescribes the location of flank lines of resistance and the works to be executed. He also frequently details working parties from the reserve to reinforce the combat echelon in the initial stages of the ground organization of the position. Where a battalion outpost is necessary, he usually details a platoon of the reserve company to constitute the outpost. Where the position is occupied more than one day, provision for relief is made.

The antiaircraft protection of the battalion reserve is provided by the heavy machine guns in rear positions (breakthrough guns) and the weapons of the reserve company.

257. Withdrawal From Action.—In a withdrawal from action, the battalion commander usually receives instructions covering the following:

Location of the covering position.

Initial position of the regimental reserve.

Location of regimental assembly position or new defensive area.

Zone of withdrawal.

Hour of commencement of withdrawal.

Transportation to be allotted the battalion.

Based on the regimental order and other factors of situation, the battalion commander fixes the location of the battalion assembly area, order of withdrawal of the several elements, hour at which the movement of each element will commence, and route to be followed by each.

258. **Night Withdrawals.**—In addition to the usual information relative to the situation, the order of the battalion commander covers the following:

a. Information of enemy and friendly troops.

b. Battalion zone of action and assembly position.

c. Strength of the screening elements in each company of the combat echelon.

d. Order and hour of withdrawal of each element as follows:

An echelon of the battalion headquarters and headquarters detachment, including message center and communications personnel.

Supply installations, including ammunition dumps; reserve supplies, carriers and trains.

Reserve units.

Elements of the heavy weapons company not required to cover the final protective line.

Support platoons.

Platoons of the combat echelon (less screening elements) and machine guns flanking the main line of resistance.

Screening elements.

The assembly position is generally located to the rear of the initial position of the regimental reserve. A location in the close vicinity of a route of communication is frequently advantageous.

Reconnaissance of routes to the assembly area is executed by daylight. Guides from the headquarters detachment are assigned to the several elements and instructed as to the routes of withdrawal. Where a stream crossing is involved and pontoon bridges are to be constructed, the proposed location of such bridges is ascertained and guides informed.

Where a road passes through the battalion zone, antitank weapons may be emplaced to cover barricades along the road, especially at communication centers. Otherwise they withdraw with the first echelon of the heavy weapons company.

Machine guns covering the final protective line are attached to rifle companies of the combat echelon for the withdrawal.

Company transport usually joins the companies in the battalion assembly area.

259. **Daylight Withdrawal.**—Daylight withdrawals under enemy pressure are so costly that they should not usually be attempted except as part of a carefully prepared scheme, such as delaying actions. When a withdrawal is forced upon

us by the situation, and enemy action, it is almost always preferable to hold on until darkness before executing a withdrawal. In this connection it should be noted that the main difference between day withdrawals and night withdrawals is that fighting is expected during daylight, while night withdrawals can usually be made secretly and without general fighting. Under these conditions, daylight withdrawal under enemy pressure is generally best prepared by the occupation of an intermediate position between the combat echelon and the regimental reserve by a reserve company supported by an echelon of the heavy weapons company.

The movement of the combat echelon usually takes place by echelon from a flank, commencing with the company less closely engaged or disposing of the most favorable lines of withdrawal. Where the regimental reserve occupies a position on the flank of the battalion zone, it is generally best, if consistent with other considerations, to commence the withdrawal on the flank nearest the reserve position.

An echelon of the heavy weapons company, attached to the remaining rifle company and occupying positions in its rear, protects its flanks and covers the area vacated by the withdrawing company. It moves to the intermediate position when directed by the rifle company commander.

The battalion commander seeks to direct the fire of supporting artillery so as to interdict hostile movement into the areas initially vacated and protect the flanks of the troops remaining in position.

The company transport joins the companies at the most advanced point permitted by the situation and the terrain. The transport of the heavy weapons company may join the company near its firing positions when enemy pressure is not close and approaches to the positions are masked by terrain features.

260. Delaying Action.—Delaying action finds special application in the combat of security detachments, especially rear guards and outposts.

The battalion usually holds extensive frontages in delaying action, in many cases double that ordinarily held in a sustained defense.

The battalion commander ordinarily attaches heavy weapons to the rifle companies. Weapons carriers are held as close to the combat echelon as the situation and the terrain permit. The battalion commander is frequently assigned a platoon or section of regimental antitank guns and a platoon of light howitzers.

The battalion executes delaying action by holding a series of positions affording fields of fire at long range or covered by an antitank obstacle. In any case, the greatest consideration must be given to practicability of the terrain

for hostile tank movement. It is frequently advisable to leave unoccupied wide frontages which can be covered from adjacent areas impracticable for tank movement.

As a general rule, hostile tanks to be dealt with in delaying actions are of the more lightly armored type, vulnerable to the fire of the battalion antitank weapons. The more heavily armored vehicles ordinarily do not appear until a strongly held defensive position must be attacked.

261. **The Reserve Battalion in Defense.**—When a regiment occupies a defense area, it usually details one battalion as regimental reserve. The battalion plan of defense in reserve will vary from the plans of the front line battalions in the following particulars:

a. **Security.**—The Battalion Commander provides for a system of sentinels charged with observation and warning of developments which require troops to man battle positions.

b. **Distribution of troops and weapons.**—The rifle companies are usually placed abreast, depth being accomplished within the companies. The heavy machine guns are distributed along the general line.

c. **Defensive fires.**—A fire plan is devised for **interior** defense of the area, to cover any locality captured by the enemy, and to support counterattacks. The weapons company of the reserve battalion may also be given a fire plan for **exterior** defense of the area, with the heavy machine guns coordinated with the fires supporting the front line battalions. The fire plan, however, **must** include close defensive fires for protection of the reserve position.

d. **Counterattack plan.**—The battalion is disposed in reserve in positions of readiness to launch a counterattack. Detailed arrangements must be made for the movement and cover of the battalion from its assembly area to the end of the operation, when the principles of the rifle battalion in attack are followed. The regimental commander coordinates the supporting fires for the counterattack.

A function of the reserve battalion may be to relieve a unit on battle position. The battalion commander keeps advised of the situation and constantly develops plans for rapid and effective employment of the battalion in this function.

The weapons company of the reserve battalion is usually assigned antiaircraft missions, and the battalion commander formulates and executes plans accordingly.

262. **Flank Battalion in Defense.**—In a large defensive installation, a battalion may be given the mission of defending one of the flanks of the area.

The position of a flank battalion in defense must be so organized that hostile attack will strike it frontally. The enemy will either refuse to make such an attack, or be bent back if it tries.

The plan of defense of a flank battalion includes:

a. **Security.**—Counter-reconnaissance is undertaken and protection toward front and on exposed flank established. Obstacles are developed for enemy cavalry and mechanized attack, closely coordinated by the battalion commander with the area antitank defense plan.

b. **Combat intelligence.**—Every agency of the battalion must be employed to detect at the earliest possible moment the approach of the enemy while he is still distant from the position, and to determine his strength and composition.

c. **Distribution of troops and weapons.**—The distribution of the troops and weapons of the battalion are generally the same as an interior battalion, with companies disposed and the weapons sited to defend the open flank.

d. **Antitank defense.**—Active and passive measures are taken for antitank defense, plus special arrangements for the construction of road blocks, tank traps, obstacles, etc.

e. **Conduct of defense.**—Provision is made for intensified flank reconnaissance and rapid shifting of reserves and fire to meet hostile flanking operations.

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