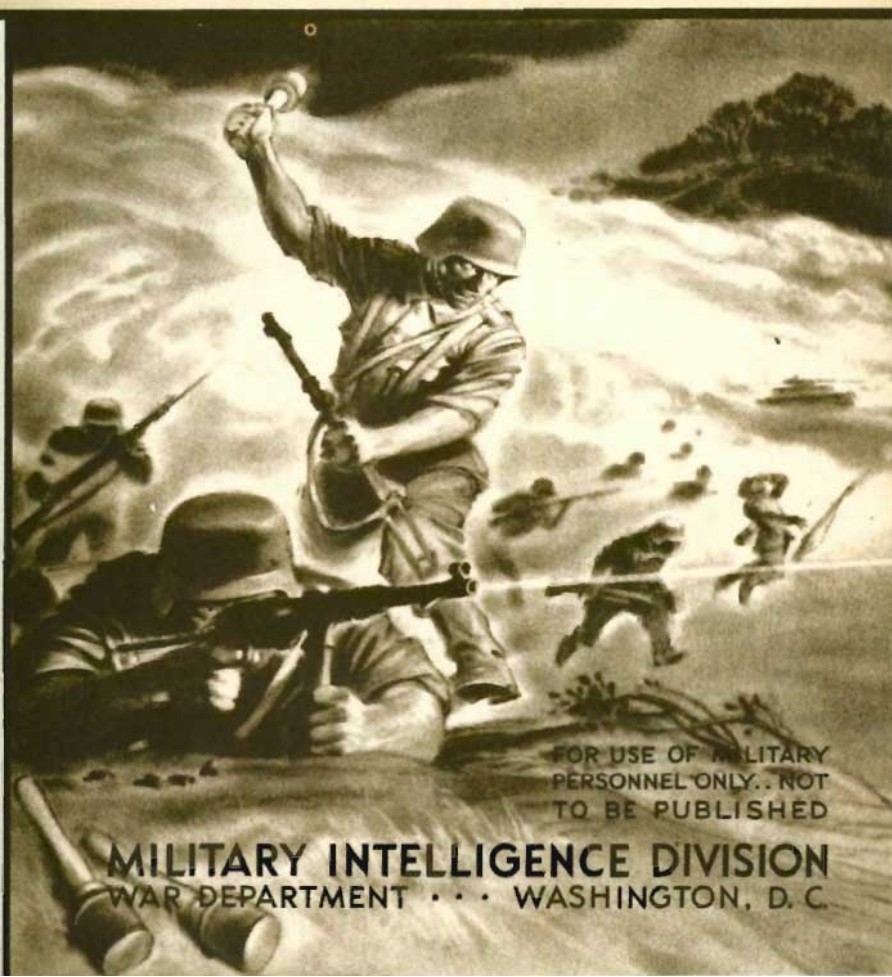
Share this copy!

VOL. II NO. 5 JANUARY 1944

INTELLIGENCE BULLETIN



FOR USE OF MILITARY PERSONNEL ONLY.. NOT TO BE PUBLISHED

MILITARY INTELLIGENCE DIVISION
WAR DEPARTMENT · · · WASHINGTON, D. C.

Intelligence Bulletin

VOL. II, NO. 5
MID 461

MILITARY INTELLIGENCE DIVISION
War Department

Washington 25, D. C.
January 1944

NOTICE

The *Intelligence Bulletin* is designed primarily for the use of junior officers and enlisted men. It is a vehicle for disseminating to them the latest information received from Military Intelligence sources. In order to insure the widest possible use of this bulletin, its contents are not highly classified; however, it is for the exclusive use of military personnel. Reproduction within the military service is permitted provided that (1) the source is stated, (2) the classification is maintained, and (3) one copy of the publication in which the material is reproduced is sent to the Dissemination Unit, Military Intelligence Division, War Department, Washington 25, D. C.

★

It is recommended that the contents of this bulletin be utilized whenever practicable as a basis for informal talks and discussions with troops.

★

Readers are invited to comment on the use that they are making of the *Intelligence Bulletin* and to forward suggestions for future issues. Such correspondence may be addressed directly to the Dissemination Unit, Military Intelligence Division, War Department, Washington 25, D. C. Requests for additional copies should be forwarded through channels for approval.

563795°—43—vol. 2, No. 5——1

TABLE OF CONTENTS

PART ONE: GERMANY

PART TWO: JAPAN

PART THREE: UNITED NATIONS

LIST OF ILLUSTRATIONS

PART ONE: GERMANY

Section I. HOW THE GERMAN ARMY USES SMOKE IN COMBAT

1. INTRODUCTION

Up to a certain point, the Germans use smoke in combat much as we do. They believe that smoke should be supplementary to other weapons, rather than a weapon in itself. Incidentally, the German Army makes more extensive use of smoke candles than does the U. S. Army. Although German doctrine covering the effect of weather, wind, and terrain on smoke screens is almost identical with our own, the enemy theory of ground attack under cover of area smoke, discussed in paragraph 3 of this section, differs from U. S. methods.

It should be noted that as yet the Germans have not used white phosphorus smoke, which not only is a highly effective screening agent, but one which causes casualties, as well. Also, it must be remembered that

if gas warfare should break out, the enemy may use screening smoke to mask barrages of poison gas. The purpose of such a procedure would be to force our

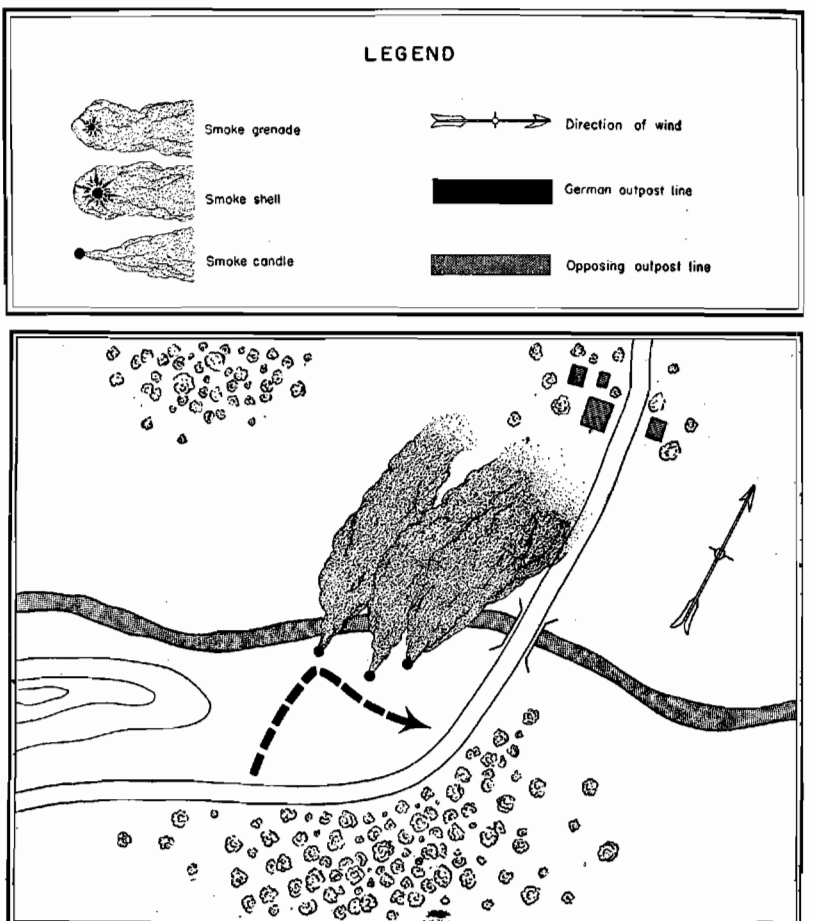


Figure 1.

troops to put on gas masks whenever smoke is used against them.

This section is based entirely on German Army documents, which the U. S. Army Chemical Warfare Service has translated and recommended for publication.[1]

2. SMOKE SCREENS

a. In the Defense

The following examples of German tactical use of smoke are representative.

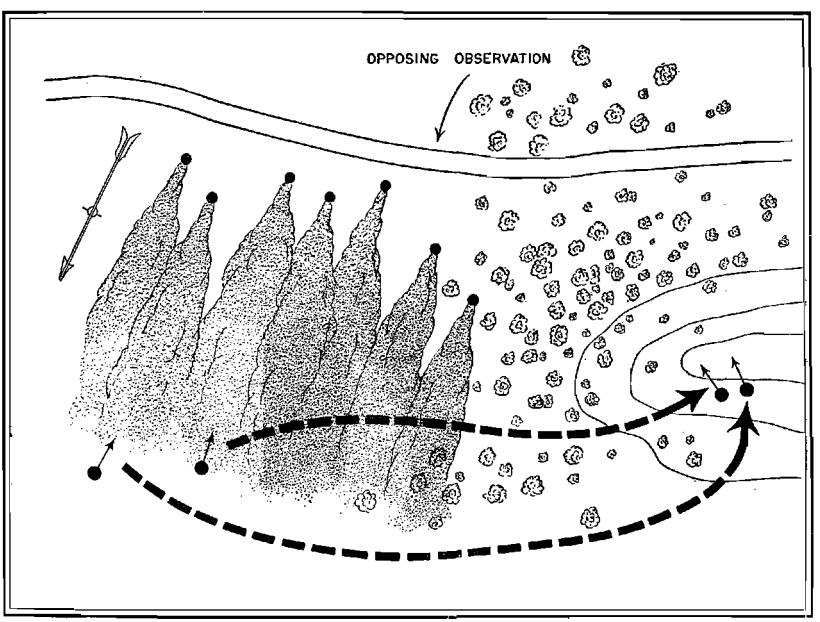


Figure 2.

(1) The advance guard in figure 1 must find out whether the group of houses in the upper right is

[1] For supplementary notes on German use of smoke, see *Intelligence Bulletin*, Vol. I, No. 5, pp. 15–20; Vol. I, No. 7, pp. 58–60; and Vol. II, No. 2, p. 31; also *Tactical and Technical Trends*, No. 24, pp. 8–11, and No. 38, pp. 14–20.

occupied by United Nations soldiers. If it draws fire from these houses and from the grove of saplings at the upper left, smoke candles are ignited, and the advance guard returns to the woods under cover of the smoke.

(2) In figure 2 a German heavy machine gun platoon is under fire of United Nations artillery. With

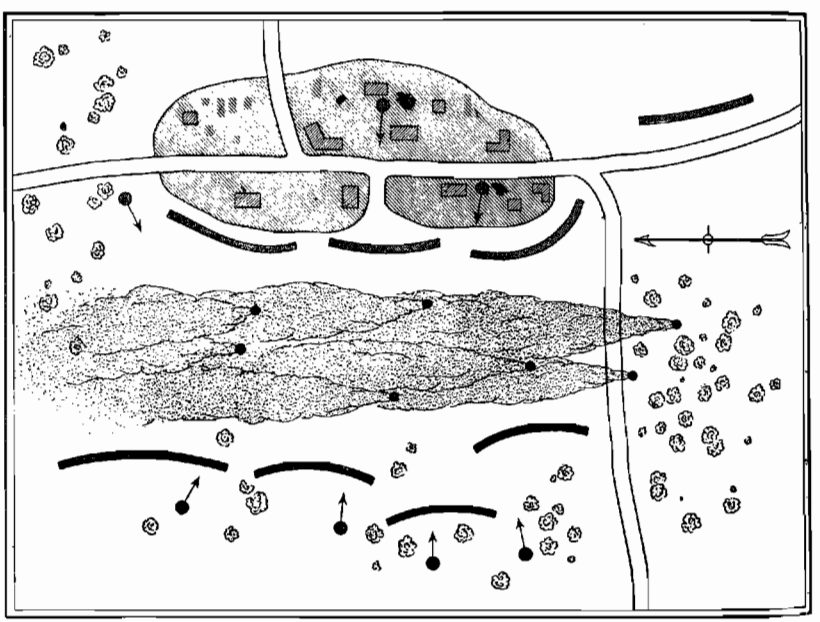


Figure 3.

the wind coming from the 1:30-o'clock direction, the German platoon sets down a line of smoke candles, which permits movement to a new position on the hill at the right. It will be noted that smoke is used to cover only that part of the terrain which offers no

concealment. The candles are of course placed with due regard for the direction of the wind.

(3) In figure 3 strong, well-spaced United Nations defenses have stopped the German attack at the entrance to a village. To prepare for further maneuvering later on, the Germans dig in under cover of

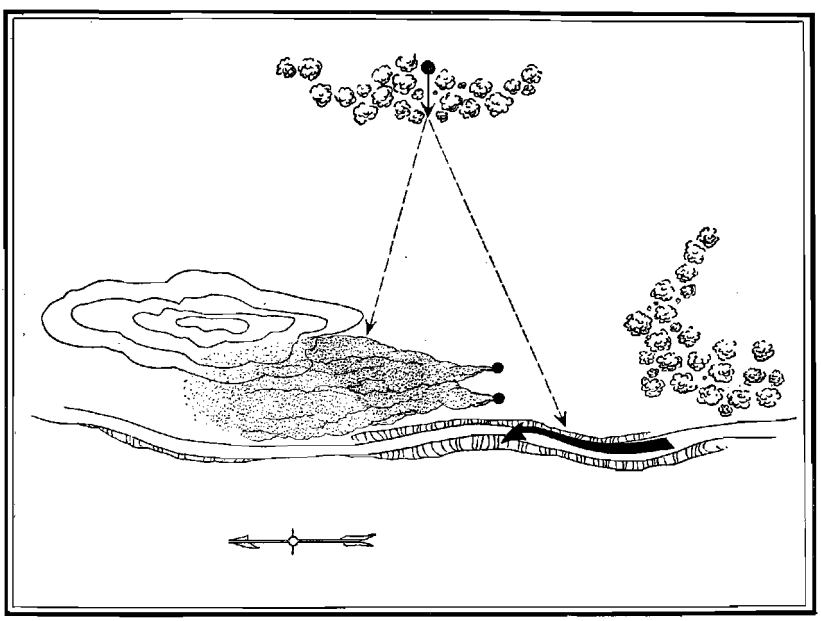


Figure 4.

smoke, taking advantage of all cover offered by the terrain.

(4) A German bicycle scout squad returning from reconnaissance suddenly receives flanking fire from the woods shown at the top of figure 4. The squad takes cover in a ditch, and ignites smoke candles. The

563795°—43—vol. 2, No. 5——2

smoke allows the Germans to proceed under cover behind the hill at the left. Behind this hill they are out of the field of fire.

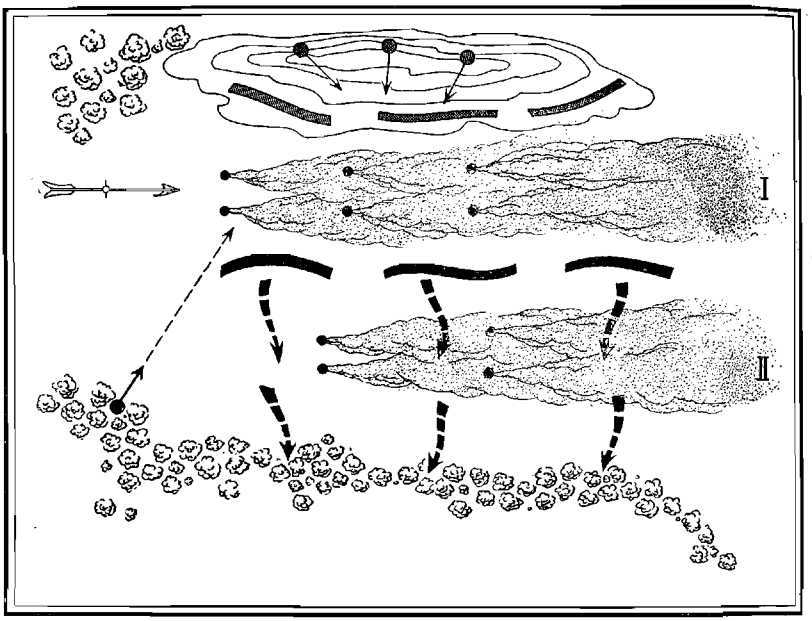


Figure 5.

(5) In figure 5 a German retrograde movement is taking place under cover of smoke. The withdrawal was begun as soon as the first screen was set up. Shortly afterward, the second screen was set up, to give the German unit time to reach the cover afforded by the woods shown at the bottom of figure 5. Plunging fire from machine guns on the flank is also covering the movement.

(6) In figure 6 German tanks are withdrawing while screened by their own smoke. The flank vehicles are screened by smoke from an artillery battery. It will be noted that this situation calls for quick realization by the artillery observation post of the tanks' predica-

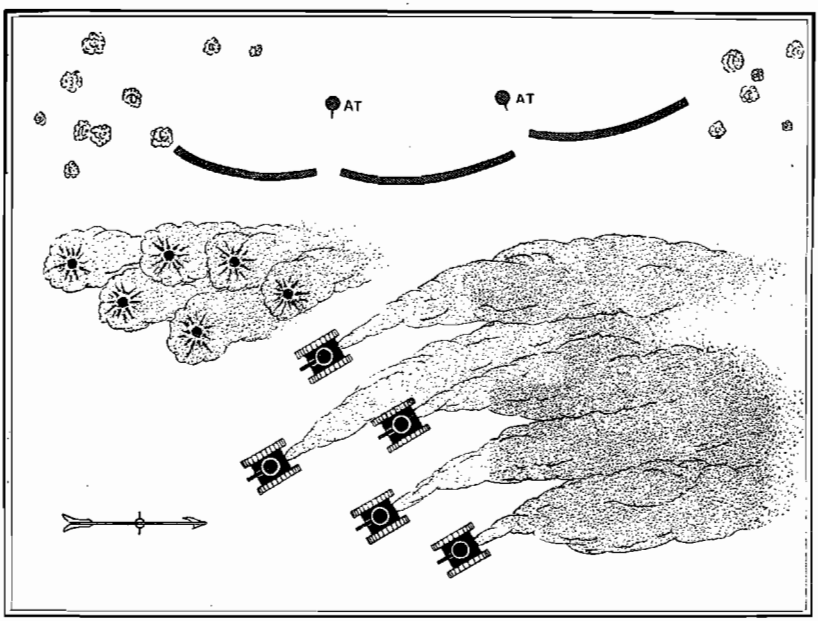


Figure 6.

ment, and for a knowledge of how to use wind direction to achieve the proper secondary screen.

(7) *Antitank Defense.*—In at least one instance during the North African campaign, a German tank unit made simple but effective use of smoke. Part of a United Nations armored division was brought up to help stem a German advance. It succeeded in ambush-

ing a column of German tanks. Some damage was inflicted and the Germans withdrew, laying down a smoke screen. The commander of the United Nations force waited for the smoke to lift, thinking that it could not last long. But it persisted, and, since the terrain did not permit by-passing the screen, he gave orders for his tanks to proceed through it. As soon as the United Nations tanks were silhouetted on the other side, the Germans fired on them with everything they had, and inflicted a great deal of damage before retreating.

The Germans have also tried some interesting experiments to make tanks vulnerable. Their glass smoke grenades seem to be designed specifically for antitank use, but might also be used against pillboxes. The Germans believe that by breaking smoke grenades over air-intake openings, it is sometimes possible to force a crew to evacuate its tank, or at least to have great trouble in handling it. Also, the Germans have experimented with the trick of tying smoke grenades—probably with time fuzes—to each end of a 6- or 7-foot rope and throwing it across the barrel of the tank's gun.

b. In the Attack

The following examples of German tactical use of smoke in the attack are representative:

(1) There is a barricade of wire obstacles in front of the United Nations machine-gun nest in figure 7. Under cover of smoke, the Germans cut gaps in the wire. (If there is any likelihood of prolonged activ-

ity in dense smoke, the Germans put on gas masks.) By means of a few smoke candles, the screen is extended toward the machine-gun positions, since the direction of the wind permits this. Both flanks of the nest are attacked under the light screen. Also, a

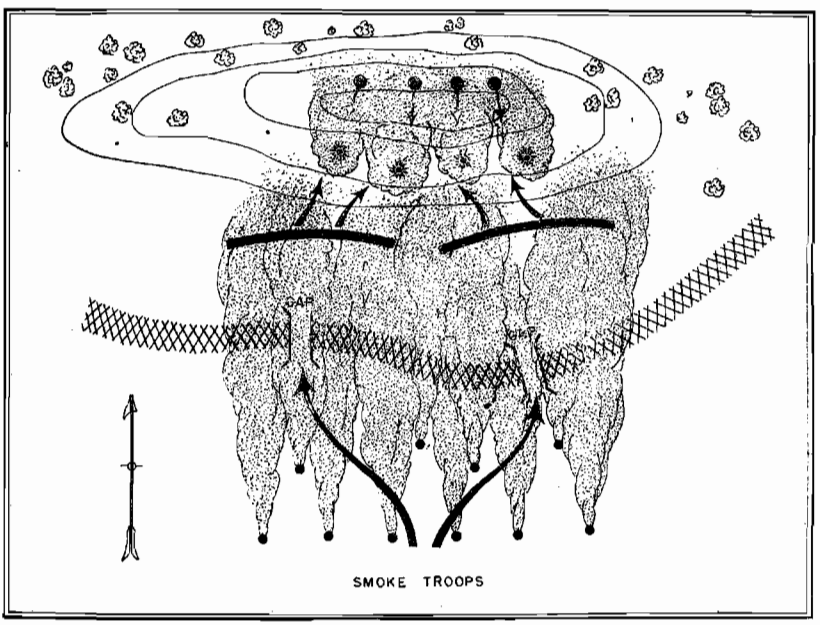


Figure 7.

few smoke grenades are thrown in front of, and into, the nest.

For a large-scale attack on a United Nations line, the Germans are likely to follow a similar procedure. First, they may cover our centers of resistance with a heavy smoke blanket; then the attacking forces may try to envelop the positions from both flanks and reduce them from the rear.

(2) *Against Pillboxes*—The German technique of assaults against pillboxes is similar to that used against machine-gun positions [described in (1) above], with some interesting modifications. Usually the assault is preceded by concentrated artillery fire.

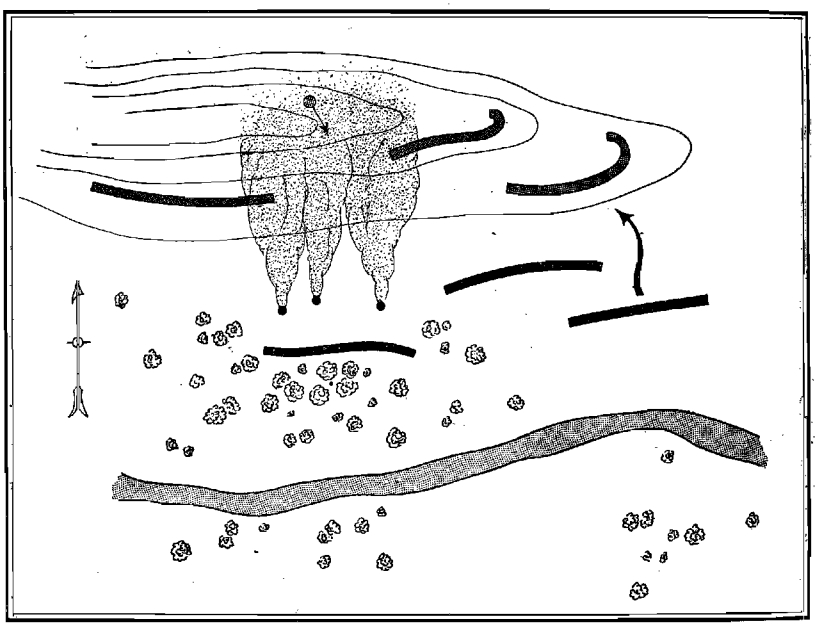


Figure 8.

One purpose of this is to make craters in which an advancing combat engineer detachment can take cover. When the assault detachment reaches wire obstacles surrounding the pillbox, a Very signal calls for all available artillery fire to be placed on the pillbox. Smoke screens are laid down by grenades or candles. Men with wire cutters or Bangalore torpedoes open gaps through the wire. Very signals call for artillery

fire against the pillbox to cease, and a flame-throwing detachment advances through the gaps in the wire and tries to get within 5 or 6 yards of the pillbox. These men are covered by machine-gun fire. As soon as their fuel is almost exhausted, they shout a warning, and men with pole charges advance to the embrasures of the pillbox and detonate the charges inside it. If the pillbox still holds out, smoke candles may be thrown inside it to make the air unbreathable, or an attempt may be made to blow in the roof with a heavy charge.

(3) In figure 8 a German attack is stopped by fire from a heavy machine gun on the left flank. Smoke

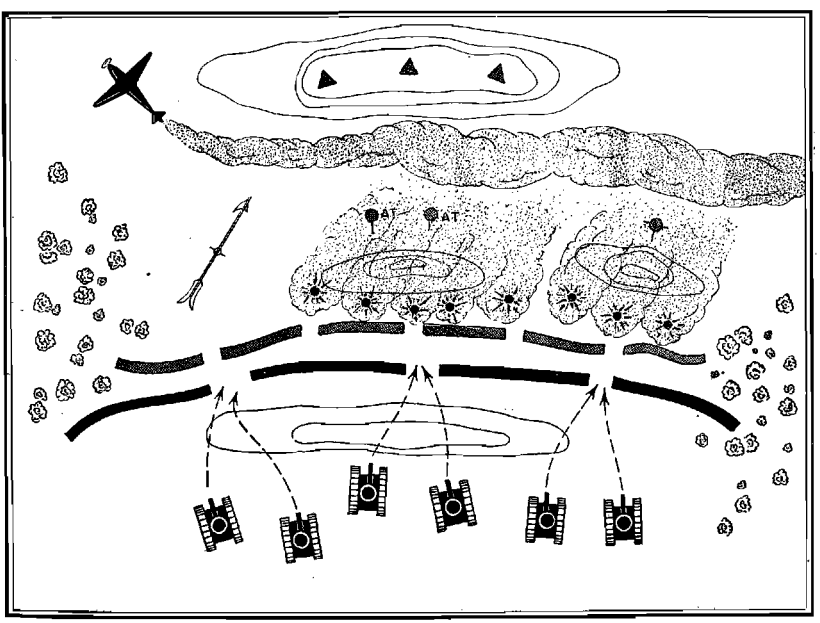


Figure 9.

is used to blind the machine gun, and the attack continues.

(4) During a German tank attack, a United Nations observation post and (suspected) antitank weapons (see fig. 9) are blinded by smoke from aircraft and artillery.

3. GROUND ATTACKS EMPLOYING AREA SMOKE

a. Definition

The term "area smoke," as defined by a German manual, means the use of smoke to achieve, over an extensive area, an effect much like that of thick natural fog. The Germans regard this as an important asset in an attack against forces prepared for defense along a stabilized front, in a field defensive position, or behind a water obstacle.

Area smoke creates a zone in which, and into which, observation and observed fire are either difficult or impossible, except at close range. It therefore favors close combat, with infantry playing an important part. The Germans regard surprise as especially useful in an attack under area smoke; this prevents the opposition from rearranging its defensive strategy so as to safeguard against penetration of its lines.

b. Preparations

Before the main attack, the Germans occupy suitable positions of readiness. Reconnaissance is performed and thorough preparations are made, before the area smoke is laid down. The attacking units

are given as clear a picture as possible of the nature of the terrain to be crossed, and details regarding the defensive capabilities of the opposing force.

The main objectives of the attack are the United Nations artillery positions. The Germans realize that if the main defensive zone is of great depth and strength, it may be necessary for them to decide upon intermediate objectives, which can be recognized easily in the smoke—that is, roads running at right angles to the advance, intersecting streams, and so on. This makes it possible to correlate the laying of the screen with the progress of the attack.

Before the smoke screen is laid down, the artillery places thorough destructive fire on the area to be attacked. High ground, suitable for observation posts in the vicinity of the battle zone, is blinded. The German intention is to neutralize United Nations artillery while the attacking forces are moving toward their preliminary positions, and to keep it neutralized throughout the battle.

Minefields are cleared beforehand and obstacles are dealt with, so that the attacking forces will be delayed as little as possible. The night before the attack is to begin, the first wave of attacking units is brought up near the positions of readiness. Roads and paths approaching the defensive zones are so marked that, even after smoke has begun to drift over these routes, there can be no possibility of error.

563795°—43—vol. 2, No. 5——3

The attacking units come to the positions of readiness in open formation.

First light in the morning is regarded as the most favorable time for the attack to begin. The approach of the attacking units may be preceded by a fairly long area smoke bombardment on the hostile forward positions. Smoke- and high-explosive projectiles are fired together until the attacking German infantry approaches the area which is being smoke-screened. If possible, the hostile rear observation posts are blinded at this time.

c. Maintaining the Area Smoke Screen

The area smoke is laid down in zones 225 to 350 yards wide, across the axis of attack. Its rate of advance is governed by the difficulties that the Germans estimate they will encounter in the respective combat areas, and by the nature of the terrain; normally, the rate of advance averages about 225 yards in a 15-minute period. The Germans stipulate that once this screen has been set in motion, it must follow the timetable prepared in advance.

German units carry the attack forward under full cover of the smoke. At this stage, forward visibility is kept to hand-grenade range.

A head-on wind gives the attack the best smoke protection, the Germans believe. Also, a lateral wind has certain advantages, because it carries the smoke across sectors which are not being attacked—a useful deception. The Germans say that a wind blowing in

the direction of United Nations forces is unsuitable, since it prevents use of the screen for close combat. The Germans believe in extending a screen over the flanks of the combat area, as a ruse. During an attack the screen is supplemented by the smoke equipment of individual attacking units—that is, by smoke grenades and candles and by smoke shells from infantry guns. The Germans try to supply their units generously with these items, especially with the smoke candles.

d. How Units Are Coordinated

The division commander assigns objectives to the infantry commander, and also assigns missions to the artillery. Antiaircraft defense is provided while units are assembling. The area screen is laid down by smoke units and artillery, working together under the sole command of the artillery commander. This area screen is laid on the basis of a time schedule and a coverage outlined by the division commander.

The infantry regimental commander gives the battalions details regarding their attack and the objectives of the breakthrough. He puts under the command of the battalions such matériel as may be necessary to the fulfillment of their missions; this includes antitank guns, infantry guns, and aids to maintaining direction. Forces assigned to attack defensive works are augmented by combat engineer units with their special equipment, individual armored vehicles, and weapons for engaging pillboxes. The bat-

talion commander goes forward with the troops engaged in the breakthrough.

Radio apparatus is considered necessary, even for lateral communication, during the course of fighting in the smoke-covered area. Additional signal units are attached, to provide the necessary communication under these difficult circumstances.

Reconnaissance aircraft are employed to report the effectiveness of the screen, and to reconnoiter the terrain beyond it. Dive-bombing attacks are carried out against hostile battery positions, assembly areas, and moving columns of hostile reserves.

After the breakthrough, the regimental commander reorganizes those forces which have become scattered.

e. The Attack

The infantry are the first to enter the combat area. The Germans are likely to dispatch assault detachments against individual and especially formidable defensive positions on the near edge of the combat area; the purpose of this, of course, is to make penetration easier.

German assault troops are thrown in at points where the terrain and the character of defensive obstacles offer conditions most favorable for a thrust. During the battle these assault troops must rely on their own resources. The German theory is that such units should be strong enough to fight their way across the combat area, and reach the far edge still strong enough

to continue active fighting. It is a German principle that these assault units should advance simultaneously, no matter how great the variety of tasks that each unit must perform.

When the infantry is nearing the far edge of the hostile defenses, under cover of the smoke, the artillery begins its mission of providing the necessary fire cover for the spearhead of the attack, as it comes out of the smoke and within the view of United Nations forces. German artillery forward observers, with field telephone apparatus, accompany the forward elements of the attacking infantry, and communicate with the artillery liaison officers at battalion headquarters. During the advance through the smoke, the observers signal to field artillery observation personnel at prearranged times, to indicate which objectives have been attained. Vertical light signals, such as Very lights, are used for this purpose.

f. Aids to Maintaining Direction

The Germans consider it necessary for attacking units to be properly oriented at all times, so that there will be no confusion when vision is sharply reduced. The following devices are employed in maintaining direction:

(1) The magnetic compass.

(2) A radio beam sent out by a transmitter, with several receivers picking it up. The transmitter is set up at the line of departure, and lays a beam about 65 feet wide through the smoke, in the direction of the

objective. The men operating the receivers can tell at any time whether they are in the radio beam or have deviated to a flank. A special unit of the signal service, moving with the leading elements of the attacking forces, operates this equipment.

(3) "Direction shells," which scatter red, yellow, or blue powder, are issued to the infantry gun companies. Before the attack these rounds are so fired as to mark the path of attack with colored patches every 55 yards (approximately).

(4) Marking lines, each about 350 yards long, attached to rockets.

(5) The gyro-compass.

(6) Direction tapes in different colors mark the routes that staffs or units have taken through the smoke. These tapes facilitate courier traffic, the maintenance of contact, and the forward movement of units advancing later on. Numerals on the tapes tell men fighting within the screen how far they have penetrated from the line of departure.

g. Follow-up of Attack

When the attacking units reach the far edge of the screen, they reorganize so that an immediate attack can be launched against important objectives, which usually lie beyond the screened area. While the infantry is reorganizing, antitank guns provide protection. Also, tank units which have been held in readiness are brought through the newly captured area to attack hostile artillery positions and any hostile re-

serves which may have been brought up. German reserves exploit the breakthrough so that maximum strength can be applied against United Nations forces on the far side of the smoke screen.

h. Note on Area Screens Used with Water Obstacles

It is a German principle that, when hostile forces are defending themselves behind a water obstacle, an area screen is useful only if there is little or no current or if the stream is a narrow one. The first wave to be ferried over consists only of assault troops who are to engage the fieldworks on the opposite bank. The timetable for the area screen takes into account the requirement that units ferried across a stream must have time to assemble on the opposite bank before any thrust against extensive hostile defenses is attempted.

Section II HOW INFANTRY BATTALIONS DEVELOP FOR THE ATTACK

1. INTRODUCTION

The German theory of entrance into offensive combat is fairly usual, in that two distinct stages are involved. These are called *Entfaltung* and *Entwicklung,* which may best be translated into U. S. terminology as "development" and "deployment." The first stage is evidently designed to permit more rapid deployment at the proper time, and to enable good control to be maintained until as late a moment as possible. Briefly, the first stage (*Entfaltung*) begins with the approach march, when the battalion changes from a route-march formation to one made up of several columns. The second stage (*Entwicklung*) covers what, in U. S. practice, is the deployment of platoons and squads. The following paragraphs outline the tactics involved in each stage, as they are taught to German infantry noncoms.

2. FIRST STAGE

Normally, the development of a regiment is by battalions (see fig. 10). If necessary, distances between battalions are increased.

When a high state of preparedness is necessary, the battalion itself may "shake out" into companies.

Companies proceed in the direction given them, employing the normal marching formation and, at the same time, making use of whatever cover and concealment are available. Commanders take into account the additional strain of marching across country.

Company transport remains with companies as long as possible, until the companies themselves must deploy.

The Germans believe that it is often advisable to have only one company forward, with the main strength of the battalion kept directly under the battalion commander as long as possible, ready to be employed in the direction most advantageous for an attack.

Support weapons are used to cover the development and the subsequent advance. These weapons are interspersed in the line of march, either between the companies or behind the battalion. If any alteration of intervals is caused by ground conditions or hostile fire, the original intervals are resumed at the earliest opportunity.

When the development takes place, the leading elements of the battalion may be ordered to seize tactically important terrain.

German training points out that deployment at night, and in woods, calls for stronger protection forward, for preparatory reconnaissance, and for the marking of routes. Intervals between units are shorter than by day.

563795°—43—vol. 2, No. 5——4

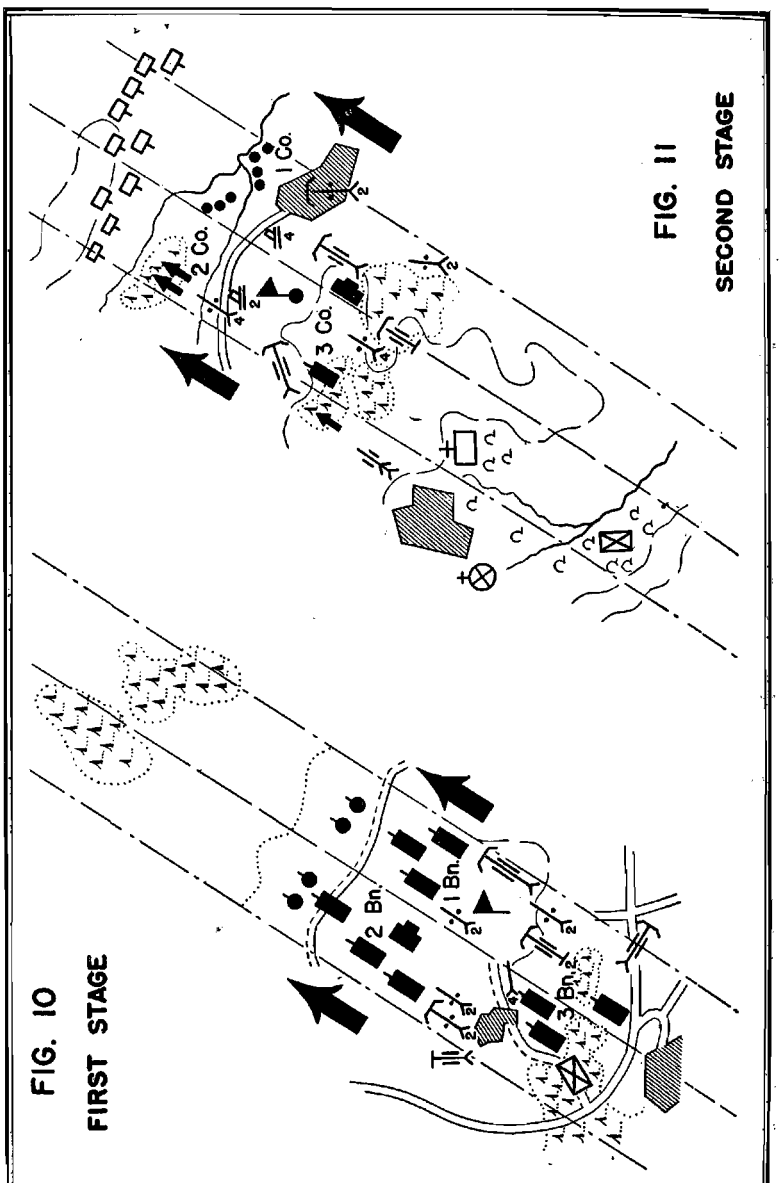


FIG. 10
FIRST STAGE
2 Bn.
1 Bn.
3 Bn.
FIG. 11
SECOND STAGE
1 Co.
2 Co.
3 Co.

The battalion commander's orders cover:

a. Information regarding hostile and German units;

b. German intentions;

c. Reconnaissance;

d. Instructions for forward companies (including seizure of dominating terrain);

e. Instructions for weapons supporting the advance;

f. Instructions for the companies comprising the main body (including reconnaissance on flanks and protection of flanks, if necessary);

g. Rendezvous of company transport and battalion vehicles;

h. Battalion headquarters; intercommunications.

At the time of the development, the battalion commander moves with the forward elements from one prominent terrain feature to another. He generally sends special reconnaissance patrols ahead, or reconnoiters the hostile position himself from a commanding terrain feature. Commanders of support weapons accompany him, reconnoitering for firing positions.

3. SECOND STAGE

As soon as any German company comes within range of observed hostile artillery fire, it disperses in depth (see fig. 11). The Germans consider that an advance in file is often desirable, inasmuch as it represents only a small target and one which is easily controlled; they recognize, however, that it is highly vulnerable to enfilade fire.

If ground conditions and hostile fire make deployment necessary, the platoons may be dispersed in depth into squads. The Germans find that this splitting-up permits the ground to be exploited for cover during the advance, and that it hinders the effectiveness of hostile observation and fire. Reserves and support weapons also adopt open formations. They remain sufficiently far behind the forward elements to avoid coming under fire directed at these elements.

If the rifle companies are deployed, their elements normally move forward in narrow columns or single files, with irregular intervals, and make use of all available cover. The forward elements are not deployed as skirmishers until they are required to engage in a fire fight.

Section III. CAMOUFLAGE AGAINST GROUND OBSERVERS

1. GENERAL

German camouflage is excellent, experienced U. S. fighting men agree. The enemy's natural aptitude for painstaking craftsmanship seems to serve him in good stead when camouflage is to be undertaken. No matter whether the German is making use of natural or artificial camouflage, his work is resourceful and thorough. He is aware that in camouflage, it's the small touches that count—details that an impatient soldier, or a lazy one, might regard as unimportant.

The German Army does not consider camouflage an end in itself, but a vitally important preliminary to successful action. As the Germans frankly put it, "Camouflage enables us to achieve surprise." They try to use their own weapons and equipment for the utmost effect, while simultaneously preventing the hostile force from making exact calculations and employing its own resources to advantage.

"When time is short," the Germans say, "it is better to camouflage a few objects well than to camouflage everything badly. If a camouflage plan is linked with deception, such as the use of dummy matériel, it will be all the more effective. However, it must be remembered that a single blunder can ruin the success

of an entire plan. Noise and light discipline are part and parcel of an over-all camouflage layout, and it is every soldier's responsibility to help maintain the general scheme to perfection. The careless man endangers the lives of all his comrades."

2. USE OF NATURAL CONCEALMENT

German use of natural concealment is comparable to our own. However, a few outstanding German principles may be noted.

Since natural concealment can be put to use quickly, it is considered preferable to artificial camouflage. The importance of darkness, mist, and shadows, and of the "texture" of natural growth, is stressed. (It is a camouflage axiom that a "smooth-textured" surface, which reflects light, make a dangerous background; on the other hand, such "rough" surfaces as thickets, tall crops, and high grass absorb light and seem darker than they are, when viewed from a distance. Of primary importance in confusing the air observer, texture can also be used to deceive the ground observer.) The German Army emphasizes that darkness affords the best concealment of all, and stipulates that it be utilized extensively for the assembly and movement of troops, transportation of supplies, and work on positions. The importance of maintaining a total blackout is stressed.

The Germans believe in continuing normal daytime camouflage measures throughout the night, in case United Nations forces should try to break the darkness

by means of flares or any other light-producing device. German soldiers—especially the men of the Hermann Goering Division—have been taught to freeze in their tracks the moment their surroundings are unexpectedly illuminated.

German soldiers are taught that bad visibility, such as mist creates, affords much the same concealment as darkness, but are warned that mist often clears away so rapidly that it is dangerous for them not to be ready with some other type of concealment.

3. USE OF ARTIFICIAL CAMOUFLAGE

a. Employing Natural Material

The German Army makes liberal use of natural camouflage material. Often the outline of an object is broken, and its betraying shadow is changed, by the use of branches; this is a favorite way of disguising tanks and vehicles at the halt.

Grass, moss, and low bushes are frequently transplanted for use as camouflage. Turf is lifted in neat rectangular sections. Recognizing that cut grass, branches, and so on soon lose their original color, the Germans renew this type of garnish continually. They are aware that branches cut from trees last longer than those cut from shrubs, and that they will keep their original color even better if they are stuck into the ground or are wrapped in wet rags or moss.

On stabilized fronts the Germans often plant grass, grain, flowers, shrubs, and even trees, to complete camouflage schemes.

b. Employing Artificial Material

Artificial material is used only if natural material is insufficient, unsuitable, or not available at all. Tarpaulins, hemp or wire netting, clothing, old rags, paper, sheet iron, wire, cord, timber, sawdust, chips, shavings, ashes, and paint are among the many kinds of artificial material that the Germans use.

As a rule, units contrive their own artificial camouflage schemes.

Camouflage suits and jackets, with or without hoods, are often worn by patrols and observers. Helmets are camouflaged with netting and garnish. Small objects are often camouflaged with garnished canvas, and large objects with garnished netting. The Germans employ the familiar U. S. principle of thinning the garnish gradually from the center outward, so that the camouflage will merge with the surroundings.

To hide bridges, exposed stretches of roads, and tactically important areas, the Germans sometimes erect screens (see fig. 12). This measure is a precaution against observed fire. Such screens usually are constructed of leafy branches placed vertically and supported by wire stretched between trees or posts; they may be supplemented by garnished netting.

Sometimes the German Army issues "camouflage umbrellas." These consist of a light metal frame and reversible netting, green on one side and buff on the other, so that local surroundings can readily be

Figure 12.

matched. Garnish is added. The umbrellas, which are easy to put up and take down, are used to camouflage heavy weapons, observation posts, and so on (see fig. 13).

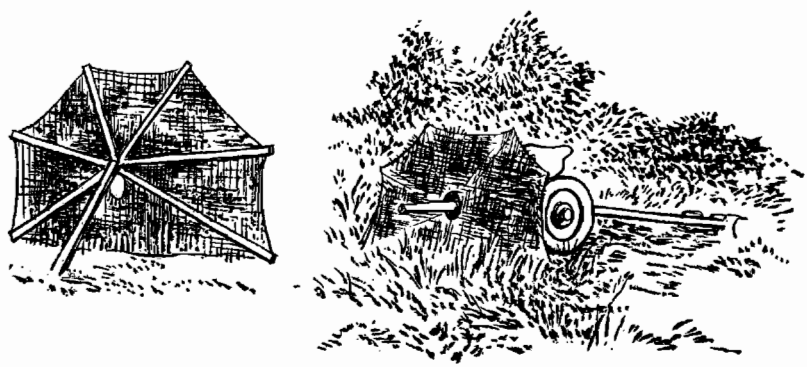


Figure 13.

Dummy hillocks are constructed, sometimes over foxholes, by means of wooden or wire frames covered

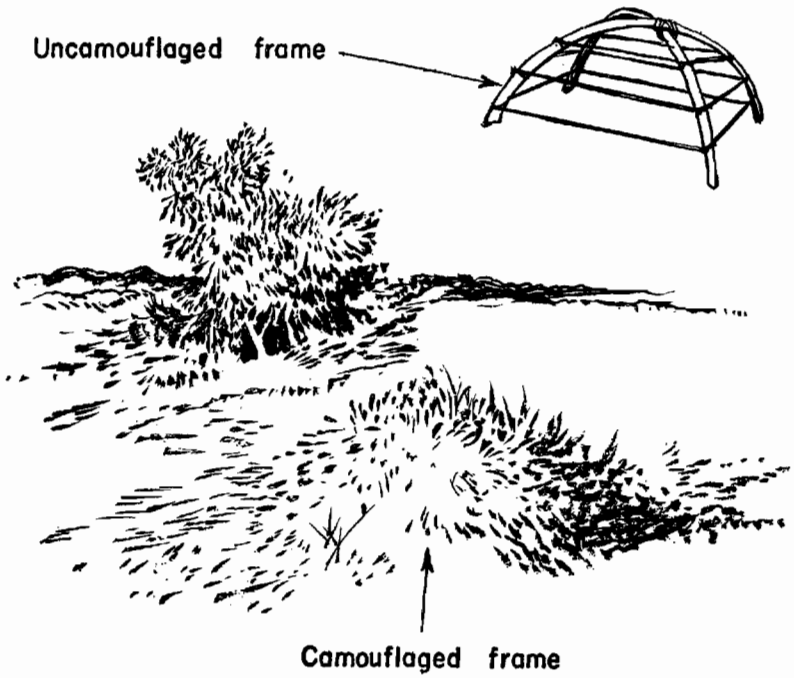


Figure 14.

with materials of suitable texture and color (see fig. 14).

When the Germans use paint in camouflaging weapons, vehicles, and other metal equipment, they deliberately employ a color which is darker than the surroundings. Also, they add sand to roughen a flat surface and thus prevent reflection of light. The Germans may either remove the windshields of vehicles altogether, or smear them with gritty oil or paint, leaving only a narrow slit for vision.

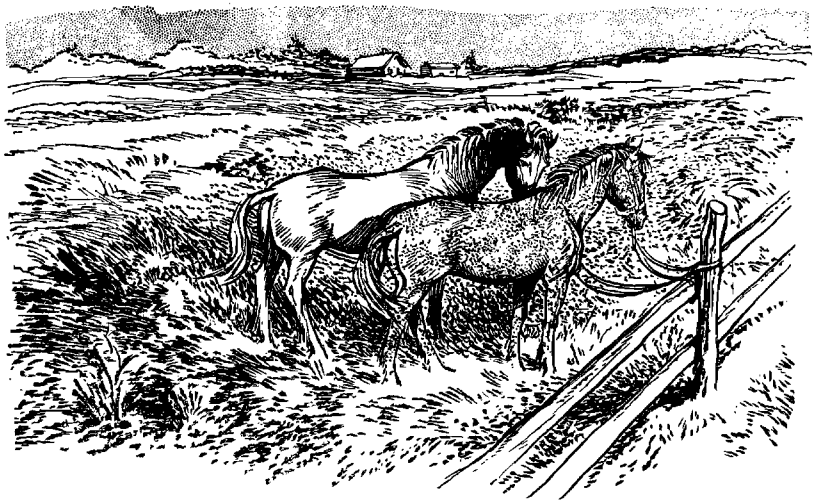


Figure 15.

White horses are sprayed with a solution of about 10 percent permanganate of potash (see fig. 15). To obtain a darker color, the Germans strengthen the solution. The coloring is renewed every 8 to 10 weeks.

4. PRECAUTIONS REGARDING NOISE

The Germans are aware of the importance of silence as part of a camouflage scheme when a hostile force is in the vicinity. Accordingly, they take precautions to eliminate or lessen sounds which might indicate their presence.

Orders are given in a subdued tone, or are written. Hard ground is avoided as much as possible, and full use is made of soft ground.

The equipment of the individual soldier is so wrapped and fastened as to prevent clinking or scraping noises.

For short distances the wheels of horse-drawn vehicles are wrapped in rags or similar material, and horses' hooves are padded. Since horses which have a tendency to neigh are a liability, their mouths are tied. If they are standing still, they are given feed bags; this has a quieting effect.

Vehicles are loaded in such a way that the clatter of equipment is impossible, even on bad roads or when the vehicles are moving across country. Horns are disconnected, so that they will not be sounded by accident.

When conditions permit, vehicles take advantage of the sound of artillery fire or friendly aircraft overhead and move while the sound of their motors is drowned out by the louder noises.

To prevent United Nations forces from locating German gun positions by sound ranging, the Germans try to carry out their fire ranging by means of roving batteries and by means of roving guns brought up expressly for this purpose. If such a system cannot be employed, fire is restricted to close bursts or salvos. The Germans also use dummy batteries (equipped to imitate the sound of fire) to make sound ranging by United Nations forces more difficult.

Section IV. NEW HEAVY TANK: THE Pz. Kw. 5 (PANTHER)

When the Pz. Kw. 6 (Tiger) became standard, the Pz. Kw. 5 (Panther) was still in an experimental stage. Now that the Panther has joined the German tank series as a standard model, a general description of this newest "land battleship" can be made available to U. S. military personnel. Much of the data presented here comes from Russian sources, inasmuch as the Pz. Kw. 5 has thus far been used only on the Eastern Front.

The Panther (see fig. 16) is a fast, heavy, well-armored vehicle. It mounts a long 75-mm gun. Weighing 45 tons, the new tank appears to be of a type intermediate between the 22-ton Pz. Kw. 4 and the 56-ton Pz. Kw. 6.[1] The Panther has a speed of about 31 miles per hour. It corresponds roughly to our General Sherman, which the Germans have always greatly admired.

[1] With certain alterations the Pz. Kw. 6 may weigh as much as 62 tons. For an illustrated discussion of the Pz. Kw. 6, see *Intelligence Bulletin*, Vol. I, No. 10, pp. 19–23.

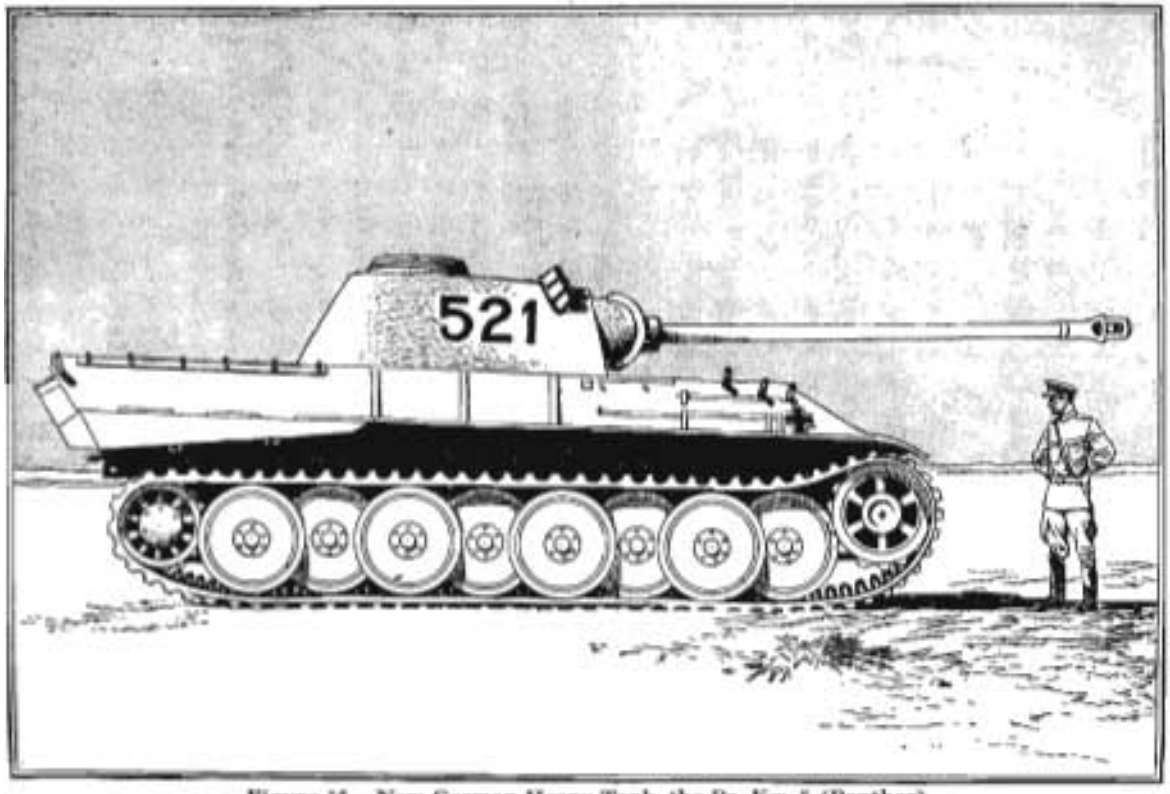


Figure 16.—New German Heavy Tank, the Pz. Kw. 5 (Panther)

The following table of information regarding the Pz. Kw. 5 will be of interest:

Weight	45 tons.
Width	11 ft 8 in (same as the Pz. Kw. 6).
Length	22 ft 8 in (½ ft longer than the Pz. Kw. 6).
Clearance	1 ft 8 in (3.9 in more than the Pz. Kw. 6).
Motor	gasoline, 640 hp, in rear of tank (the gas tanks are on each side of the motor).
Cooling system	water.
Ignition	magneto.
Caterpillar section	drive sprockets at front rear idlers; 8 double rubber-tired bogie wheels, 33.5 in in diameter, on either side; torsion suspension system; hydraulic shock absorbers inside tank; metal caterpillar tread 25.6 in wide.
Armor	front of turret and cannon shield, 3.94 in; upper front plate, 3.45 in, 57° angle of slope; lower front plate, 2.95 in, 53° angle of slope.
Armament	75-mm gun, long barrel; one 7.92-mm machine gun (MG 42).
Ammunition	75 rounds (AP and HE).
Maximum speed	approx 31 mph.
Range	approx 105 mi.
Crew	5.

It is believed that the 75-mm gun is the Kw. K.[2] This tank gun is a straight-bore weapon with a muzzle brake, and has an over-all length of 18 feet 2 inches.

[2] *Kampfwagenkanone*—tank gun.

Although equipped with the same motor as the Tiger, the Panther has lighter armor and armament. For this reason it is capable of higher speed and greater maneuverability. The Panther is also provided with additional armor plate, 4- to 6-mm thick, (not shown in fig. 16) along the side, just above the suspension wheels and the sloping side armor plate.

When a flexible tube with a float is attached to the air intake, the Panther has no difficulty in fording fairly deep streams. There is a special fitting in the top of the tank for attaching this tube.

Like the Pz. Kw. 6's, the Pz. Kw. 5's are organized into separate tank battalions. During the summer of 1943, the Germans used many of these new tanks on the Russian front.

Although the Russians have found the Pz. Kw. 5 more maneuverable than the Pz. Kw. 6, they are convinced that the new tank is more easily knocked out. Fire from all types of rifles and machine guns directed against the peep holes, periscopes, and the base of the turret and gun shield will blind or jam the parts, the Russians say. High explosives and armor-piercing shells of 54-mm (2.12 inches) caliber, or higher, are effective against the turret at ranges of 875 yards or less. Large-caliber artillery and self-propelled cannon can put the Panther out of action at ordinary distances for effective fire. The vertical and sloping plates can be penetrated by armor-piercing shells of 45-mm (1.78 inches) caliber, or higher. Incendiary armor-piercing shells are said to be especially effec-

tive, not only against the gasoline tanks, but against the ammunition, which is located just to the rear of the driver.

The additional armor plate above the suspension wheels is provided to reduce the penetration of hollow-charge shells. According to the Russians, it is ineffective; antitank grenades, antitank mines, and Molotov cocktails are reported to be effective against the weak top and bottom plates and the cooling and ventilating openings on top of the tank, just above the motor.

However, it should definitely be stated that the Pz. Kw. 5 is a formidable weapon—a distinct asset of the German Army.

563795°—43—vol. 2, No. 5——6

Section V. BRITISH COMMENTS ON GERMAN USE OF TANKS

In the *Intelligence Bulletin,* Vol. I, No. 11, pp. 53–54, there appeared a translation of a Fifth Panzer Army order signed by Lt. Gen. Gustav von Vaerst, listing "ten commandments" for the employment of tanks. This month the *Intelligence Bulletin* again publishes a translation of these "commandments," and adds appropriate comments by GHQ, Middle East Forces, based on a report by an experienced armored force officer.

First, the German order:

1. The tank is a decisive combat weapon. Therefore, its employment should be limited to the "main effort" in suitable terrain.

2. The tank is not an individual fighting weapon. The smallest tank unit is the platoon, and, for more important missions, the company.

3. The tank is not an infantry support weapon. It breaks into, and through, the opposition's line, and the infantry follows it closely.

4. The tank can take and clear terrain, but it cannot hold it. The latter is the mission of the infantry, supported by infantry heavy weapons, antitank guns, and artillery.

5. The tank is not to be employed as artillery to fight the enemy from a single position for an extended period. While fighting, the tank is almost constantly in motion, halting briefly to fire.

6. The mission of the infantry is to neutralize hostile anti-tank weapons, and to follow the tank attack closely so as to exploit completely the force and morale effect of that attack.

7. The mission of the artillery is to support the tank attack by fire, to destroy hostile artillery, and to follow closely the rapidly advancing tank attack. The main task of the artillery support is continuous flank protection.

8. The task of the tank destroyers ("Ferdinands" or other self-propelled mounts equipped with high-velocity weapons) is to follow the tank attack closely, and to get into the battle promptly when tank fights tank.

9. The mission of the combat engineers is to open gaps in minefields—under tank, infantry, and artillery protection—and thereby enable the tank attack to continue.

10. At night, when tanks are blind and deaf, it is the mission of the infantry to protect them.

And now the comments by GHQ, British Middle East Forces:

It is considered that, with the exception of Nos. 2 and 3, these "commandments" are sound common sense, based on fundamental principles.

Number 2 is interesting, however, since it reflects the opinions of von Arnim, von Thoma, and Stumme (all now prisoners of war), who fought in Russia, where they acquired the habit of using their tanks in "penny packets." A platoon consists of five tanks, and a company consists of 17 Pz. Kw. 3's, 18 Pz. Kw. 4's, or 8 Pz. Kw. 6's. Rommell would never have agreed to the company being split, and would normally have preferred to use the battalion, or even the regiment, as the unit of attack, just as we [the British] ourselves would.

Number 3 is debatable. Against weak antitank defense and no mines, this method would be effective. However, the action at Medenine, in the Mareth line area, and all action after that, showed that we are as well equipped with antitank guns as the Germans are. Because of this, the Germans will be compelled to rewrite their No. 3 "commandment" and use their tanks much as our Eighth Army has been doing recently.

Section VI. GERMAN COMBAT TACTICS IN TOWNS AND CITIES

1. INTRODUCTION

Now that United Nations forces are fighting energetically on the soil of continental Europe, it must be expected that we shall engage the enemy in towns and cities with ever-increasing frequency. For this reason, it is most important for us to understand German doctrine regarding combat in populated places.

Often the size of a town is not the principal determining factor in a German commander's tactical plan; instead, a town's geographic or economic importance may be his first consideration. A very small village may be worth contesting fiercely if it commands the entrance to a mountain pass, for example, or if it possesses resources essential to the German war effort. A much larger town, on the other hand, may have far less value, and by no means be worth the same expenditure of men and matériel.

However, the Germans use the same basic tactics for towns and cities alike. These tactics are summarized in the following paragraphs, which are based on a German Army document.

2. IN THE ATTACK

The Germans attempt to outflank and encircle a town. If this move succeeds, they cut off the water, electricity, and gas supply. They find the most vulnerable spot in the area held by the hostile forces, and penetrate it. After cutting the hostile forces in two, the Germans then divide the opposition again and again so that it no longer is able to maneuver freely. German doctrine maintains that parallel attacks constitute the most advantageous method if a number of columns are available (see fig. 17a). Thrusts at an angle (see fig. 17b), and especially thrusts from opposite directions (see fig. 17c and d), are avoided. The Germans believe that such thrusts are likely to result in friendly troops getting under each other's fire, and that confusion is inevitable.

The Germans group their units as attack columns and mopping-up columns. Advance by limited sectors is the rule. Commanders do not plan too far ahead. After taking a block, a commander reassembles his men and issues further instructions.

It is a German axiom that "he who commands the heights also commands the depths." The Germans strive for dominating positions, although in defense they may site their machine guns in much lower positions.

While an advance is being made in a street, a simultaneous advance is made along the roofs if the houses adjoin each other. In the streets an advance is made

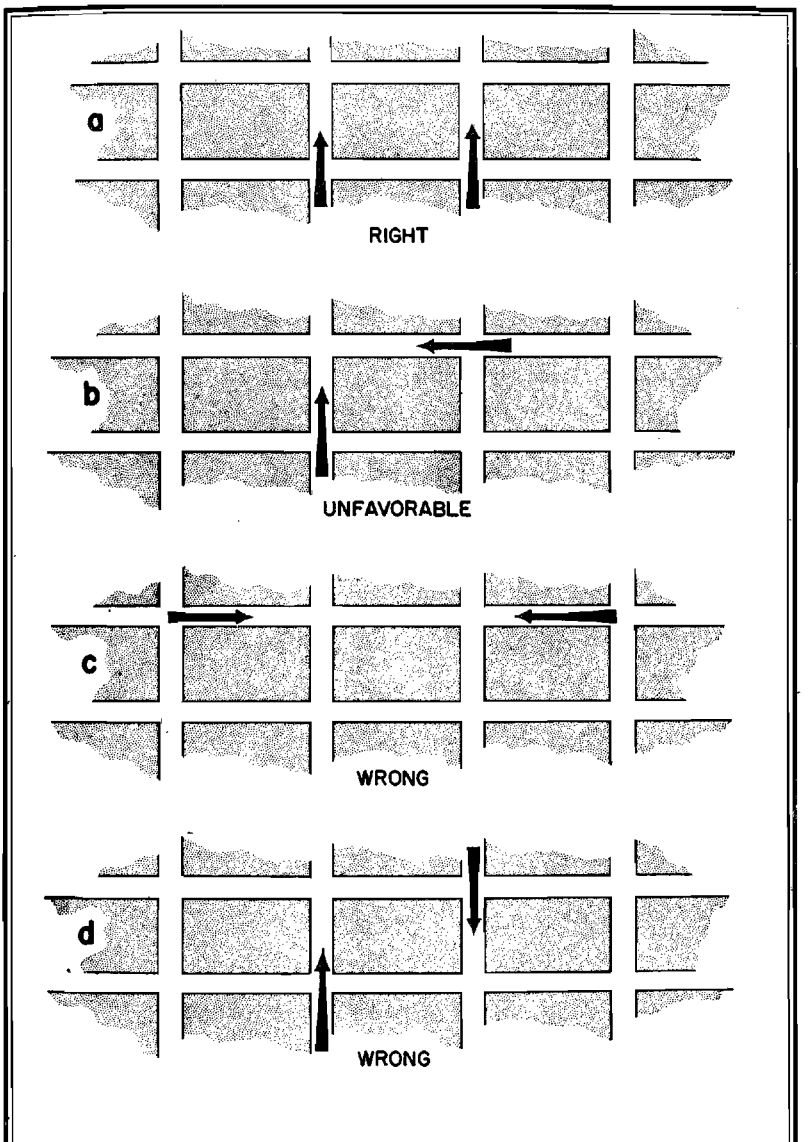


Figure 17.—German Attack Tactics in Towns and Cities.

by single files edging forward close to the houses on each side. From front to rear, marksmen are detailed to observe danger points on the opposite side of the street; that is, a man may be ordered to observe all roofs or all the windows on a given floor, and so on.

Side alleys and entrances to side streets are blocked as rapidly as possible. After this, searching parties are detailed to investigate all buildings in the block, and then close them. Entrances to cellars and first floors are guarded until all houses in the block have been searched. All windows are closed and shuttered.

The Germans attach importance to constant and effective cooperation with artillery. Light guns (man-handled) advance along the street and combat nests of resistance with direct fire. The Germans believe that, aside from air bombardment, only 150-mm to 210-mm pieces are effective in destroying the larger buildings. Tanks, they maintain, are not very successful in assaults on houses.

When attacking a town, the Germans do not employ motor vehicles or horses. As much gear as possible is sacrificed in favor of axes, crowbars, wire-cutters, saws, ropes and rope ladders, flashlights, prepared charges, hand grenades, smoke candles and grenades, and maps and air photographs of the locality.

3. IN THE DEFENSE

In organizing the defense of a town, the Germans prepare a reserve of drinking water, rations, ammunition, and medical supplies. Some of this is stored in

various cellars, since the Germans are aware that these are tactically useful places, from which the advance of a hostile force can be hindered considerably. Searchlights are kept ready to illuminate the target area at night. Preparation is made for defense by sectors. Mines and booby traps are kept ready for use.

So that the main line of resistance will not be discovered by the hostile forces, the Germans place it within the town proper and make it irregular. Only individual centers of resistance are established in the outskirts. These are used for flanking purposes. Important buildings are defended, not from their own walls, but from advance positions.

The Germans try to maintain a strong mobile reserve.

Every attempt is made to trap hostile units in dead-end streets and to cut off, by sudden flanking movements, hostile units which advance too recklessly.

Emergency barriers are kept ready in the entrances to buildings. These barriers can be placed across the streets on extremely short notice.

Low machine-gun positions are prepared to cover all possible approach routes.

Good telephone communication is maintained.

Command posts remain constantly on guard against surprise attacks.

The windows of all buildings are kept open at all times, so that the attackers will have difficulty in detecting from which windows fire is being delivered.

563795°—43—vol. 2, No. 5——7

German soldiers are instructed not to fire from window sills, but from positions well within the rooms. Snipers continually move from room to room. Individual roof tiles are removed to provide loopholes. On rooftops, firing positions behind chimneys are considered desirable, provided that the chimneys are below the roof ridges.

Important doors leading to the street are guarded, and doors which are not to be used are blocked. Holes are pierced through the walls of adjoining houses to afford communication channels.

The Germans regard the entire matter of defense merely as a preliminary to surprise counterattacks.

Section VII. GERMAN STAKE MINE

The German concrete antipersonnel mine known as the *Stockmine* (stake mine) is now standard. The stake mine, which must not be confused with the Italian picket mine, apparently represents a German effort to economize on strategic materials; nevertheless it deserves to be treated with as much respect as any other antipersonnel device. It has been reported that the stake mine may be fatal up to a radius of 66 yards.

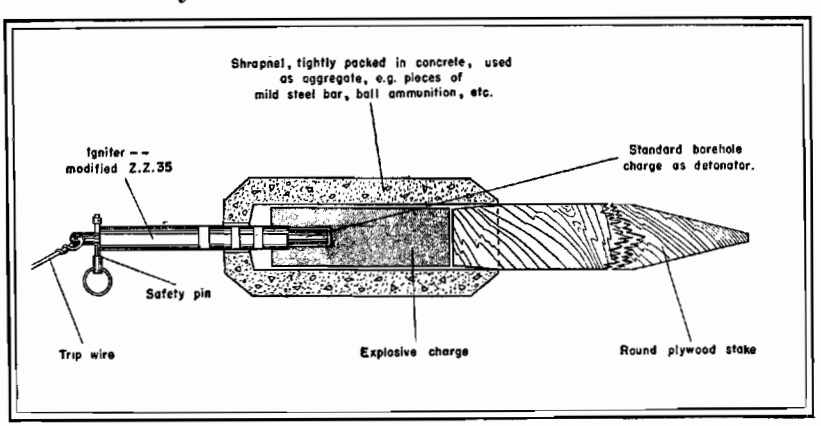


Figure 18.—German Stake Mine (antipersonnel).

The mine consists of a concrete casing, a high explosive cartridge, an igniter, and a detonator, and is used with a stake. The mine (see fig. 18) is about

6 inches high and about 2½ inches in diameter, and weighs approximately 4½ pounds; the stake (see fig. 18) is about 1 foot 4 inches long and 1½ inches in diameter. The Germans assemble these parts in the following manner:

a. The stake is driven into the ground until it projects about 5 inches.

b. The cartridge is placed inside the casing. When the Germans use a smaller commercial cartridge, they wedge it into place with bits of wood.

c. The igniter, together with a detonator, is screwed into the top of the mine.

d. The mine is placed on the stake.

e. If necessary, the top and bottom of the mine are sealed with wax to keep out moisture.

The ways in which the Germans lay the stake mine depend on the terrain, especially on the type of soil and the vegetation. Figures 19a, 19b, and 19c illustrate methods of laying the mine with the German Z. Z. 42 igniter. If a German Z. Z. 35 igniter is used, a pull at a right angle to the igniter will not fire it. For this reason, a stake with its top cut off at a 45-degree angle is driven into the ground until it projects about 1½ feet, and the mine is placed beside it; the trip wire is led from the igniter over two nails which have been driven crosswise into the top of the stake, as shown in figure 19d. (This last precaution is designed to keep the wire from snagging.) The enemy may also use two trip wires, at an angle of 180 degrees to each other (see fig. 19e); both are at-

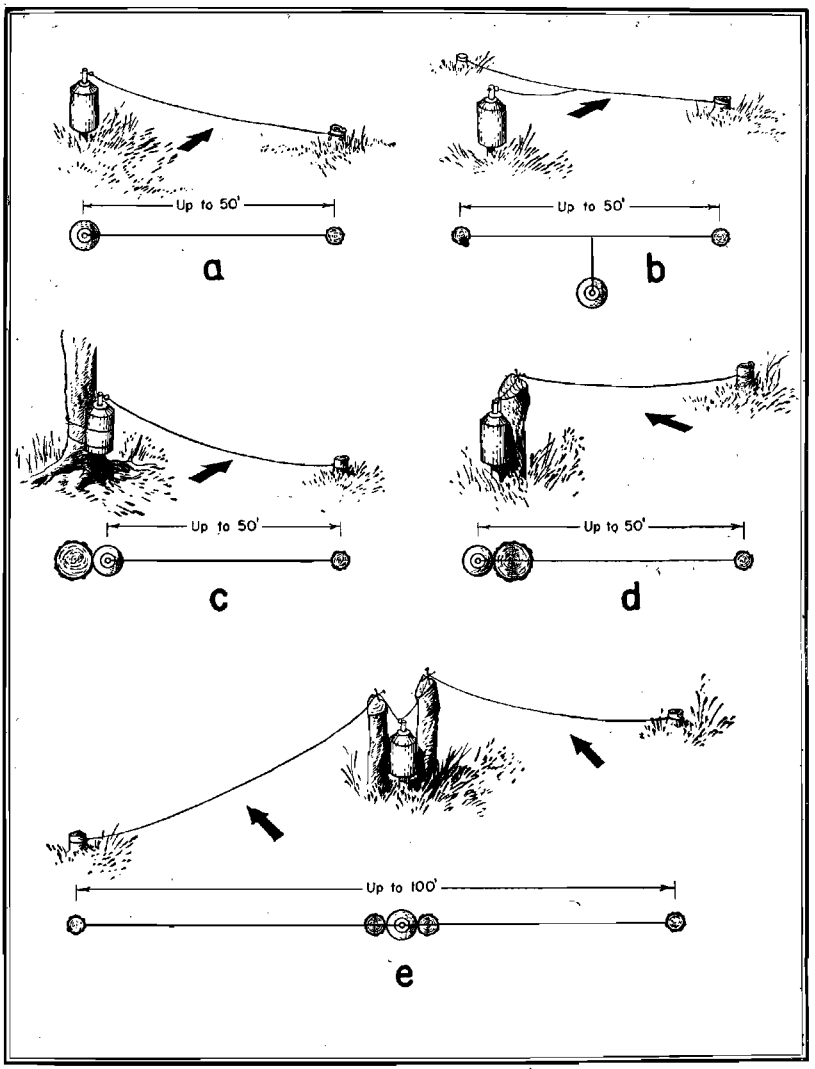


Figure 19.—Methods of Laying the German Stake Mine.

tached to the eye in the releasing mechanism of a Z. Z. 35 igniter, and two guide stakes are used. The Germans stipulate that trip wires not longer than 50 feet be used, as a rule. If longer trip wires (up to 65 feet) are used, they are supported at a height of 8 to 10 inches above the ground by stakes carefully aligned 15 feet apart. Also, the mine without the stake may be tied to trees or telephone poles (see fig. 19c). When this is done, the hole in the bottom of the mine is plugged to keep the cartridge in position. In loose sand, boggy ground, or snow, extra-long stakes are used. The Germans recommend that white paint be used as camouflage when there is snow on the ground.

The Germans say that stake mines should be laid and armed only by highly skilled men working in pairs. One man holds the mine and the igniter while the other arranges the trip wire. German soldiers are warned that the wire must never be stretched tight.

The enemy is likely to lay stake mines in depth in narrow country paths, and in defiles and ravines. The mines may also be laid in staggered rows to form mine belts. For example, such a belt might consist of 150 mines laid in three rows, each about 3,200 feet long, with the mines 65 feet apart.

In neutralizing the stake mine, the Germans first identify the type of igniter. If it is a Z. Z. 42, one man holds the safety pin firmly in position while a second man cuts the trip wire. If the pin of the Z. Z. 42 has been partly withdrawn, the mine is destroyed

on the spot. If the igniter is a Z. Z. 35, the safety pin or a nail is placed in the safety-pin hole. As an added precaution, the pin may be secured with adhesive tape.

To disarm the stake mine, the Germans unscrew the igniter, remove the charge and the detonator, and then pack each of these three parts in separate boxes for future use.

PART TWO: JAPAN

Section I. ENEMY BAYONET TECHNIQUE

1. INTRODUCTION

Japanese training regulations dealing with the technique of using the bayonet are presented below. Although reports to date from theaters of operations show that, as a rule, the individual Japanese soldier has not been very adept at bayonet fighting,[1] all our intelligence sources indicate that the Japanese place considerable emphasis on bayonet training.

2. THE JAPANESE REGULATIONS

a. Guard Position

The regulations give the following specific instructions for this position:

Face the opponent and look into his eyes. With the toes of the right foot pointing to the right, take a half step with the left foot, toes pointing toward the opponent; bend the knees slightly and keep the body straight (see figure 20). At the same time, throw the rifle with the right hand so that its weight leans toward the left and drops forward. With the left hand held a trifle above the belt line, grasp the rifle just in front of the lower band. With the right hand, palm to the left, grasp the small of

[1] See *Intelligence Bulletin*, Vol. II, No. 2, p. 64.

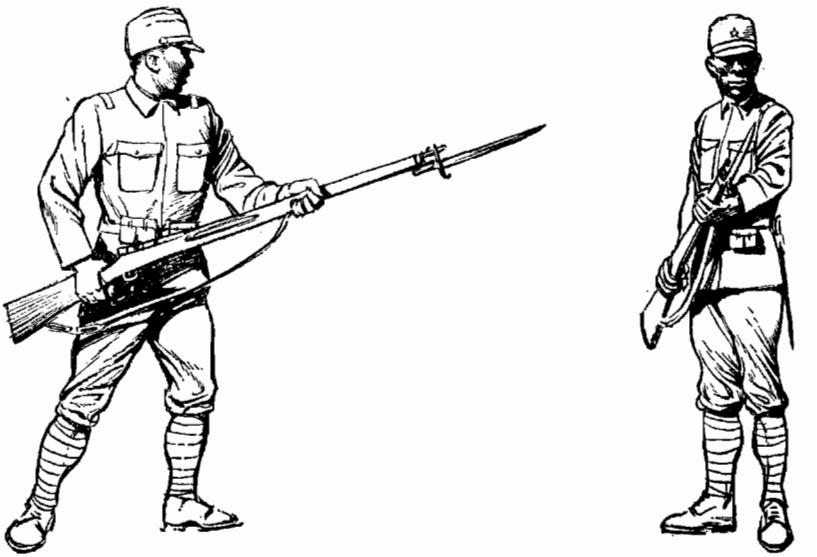


Figure 20.—Guard Position.

the stock, keeping the protruding part between the forefinger and the middle finger. Hold the right fist against the side of the hip. Hold both arms in a natural manner, slightly bent. Point the bayonet at the opponent's eyes.

(1) *While Moving Forward.*—Press lightly with the toes of the rear foot and advance forward with the front foot, following quickly with the rear foot.

(2) *While Moving Backward.*—Execute in exactly the opposite manner from the forward.

The advantages of these movements are that: (a) balance can be maintained easily, with the soldier ready for instant movement in any direction; (b) the knees are not strained; and (c) both feet are moved close to the ground, and the toes are always in contact with the ground.

b. Basic Thrust

The basic thrust is a movement executed by driving the bayonet in a straight line to any opening in the body from a crossing position of the rifles, opponents facing each other (see fig. 21).

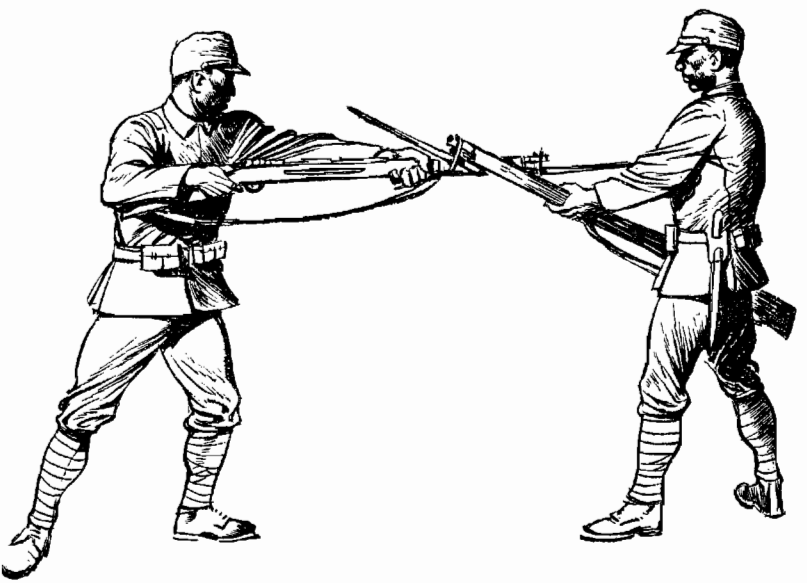


Figure 21.—Position for Basic Thrust.

The instructor gives the command of "Rear Left" from the crossing position, and the thrust is executed by carrying out the following instructions:

Execute the thrust from the "On Guard" position by stepping firmly with the right foot and then quickly advancing the left foot. At the same time, with both hands grasping the rifle firmly, raise the right hand to the lower front part of the right breast, raise the left hand forward and a little higher than the right, and bend the waist a trifle; during this movement,

drive the bayonet forcefully, with the left hand extended, in a straight line at the opening of the instructor's body. While both legs move forward close to the ground, step with the left foot flat so that it will carry the weight of the body, and quickly move the right leg to the proper position. After executing the thrust, return swiftly to "On Guard."

When the bayonet fighter executes his thrust, the instructor will move his left hand slightly to the left from the crossing position. He moves backward with the thrust and receives it on his body. Then he returns immediately to "On Guard."

Successive basic thrusts are movements in which the thrust is executed several times in succession. In executing these movements, the instructor will give a command of "Rear Left" from the crossing position.

Successive thrusts are executed swiftly. After each thrust, the bayonet fighter retreats, but recovers immediately. Even if he believes that the distance and timing are not just right, the fighter must always try to thrust with determination. If the thrust cannot be executed immediately, he should not give his opponent an advantage. The fighter should be alert for distance and timing, and, at the opportune moment, he should thrust with determination.

The instructor, in order to comply with the main points of teaching the thrust, will move backward swiftly with each thrust, according to the skillfulness of the thrust, and allow the bayonet fighter to thrust his body. Then, as the bayonet fighter becomes more competent, the instructor should vary and lengthen the timing and distance so as to give the fighter practice.

c. Other Types of Thrusts

In executing movements of the bayonet, the different types of thrusts are: side-step thrust, low body thrust, body-contact thrust, knock-off thrust, and parry thrust.

(1) *Execution of Side-step Thrust.*—To execute the side-step thrust, place the bayonet on the right or left of the opponent's bayonet. Lower the bayonet point by bending both knees and, at the same time, move to the right or left, step in quickly, and drive the bayonet forcefully into the opponent's throat or upper body. Guide the bayonet to the target through the upper part of the opponent's left hand.

Common errors: (a) the tendency to lower the bayonet point too much; and (b) the tendency to withdraw the rifle—a move which gives the opponent an advantage.

(2) *Execution of Low Body Thrust.*—Execute this thrust in the same manner as the side-step thrust, except that your target is the lower part of the body and you guide the bayonet to the target through the lower part of the opponent's left hand.

Common errors: (a) a scooping-up motion accompanying the thrust, preventing a straightforward penetration; (b) loss of balance, caused by too long a step or improper movement (rear foot not following properly); and (c) giving away your intentions before the thrust.

(3) *Body-contact Thrust.*—This movement, executed with great speed and power, unbalances the opponent through body contact. Without losing balance or advantage, the bayonet fighter, in executing this thrust, holds the rifle close to his body, with the bayonet point facing slightly to the right; presses his right foot firmly on the ground, and, with his abdomen strained firmly, thrusts upward to the opponent's body.

Common errors: (a) loss of balance and (b) slow recovery.

(4) *Knock-off Thrust.*—This is an offensive blow designed to create an opening by knocking the opponent's bayonet out of the way. The bayonet fighter makes a movement which is both forward and lateral. He hits his opponent near the left fist to knock his bayonet to the right, left, or downward. When an opening is created, he executes his thrust.

Common errors: (a) too much strength put in the left hand, thereby making it difficult to execute a continuous thrust; and (b) failure in the lateral movement to move first the foot on the shifting side.

(5) *Parry Thrust.*—This is an offensive blow, delivered while in the crossing position and designed to create an opening by pushing away the opponent's bayonet. It is executed in the same manner as the knock-off thrust.

(6) *Execution of Counterthrust to Parries.*—Counter the opponent's parries by parrying his bayonet to the right or left, and create an opening for a counterthrust.

(7) *Execution of Counterattack.*—To counter an enemy executing a thrust, follow the direction given for the knock-off thrust, beat the opponent's bayonet out of the way, and execute the counterthrust.

To counter an opponent who is trying to knock off or parry, follow the direction given for the side-step thrust. Just at the moment the opponent executes a thrust, evade it quickly and counterthrust.

d. Close Combat

The purpose of close combat training is to learn the main points of close-in fighting, thereby gaining self-confidence. Securing the initiative by attacking suddenly is the secret of success in this phase of fighting.

(1) *Vulnerable Parts of the Body.*—When hitting the opponent with the rifle, the most vulnerable parts of the body are the elbows, fists, feet, knees, face, head, solar plexus, sides of the body, testicles, and shin.

(2) *Execution of Rifle Blows.*—Hit the opponent's head and face by swinging the rifle up and driving home the blow (see fig. 22a) or, by following the direction given for the body-contact

thrust, drive the butt forward and upward, and smash the face or head (see fig. 22b).

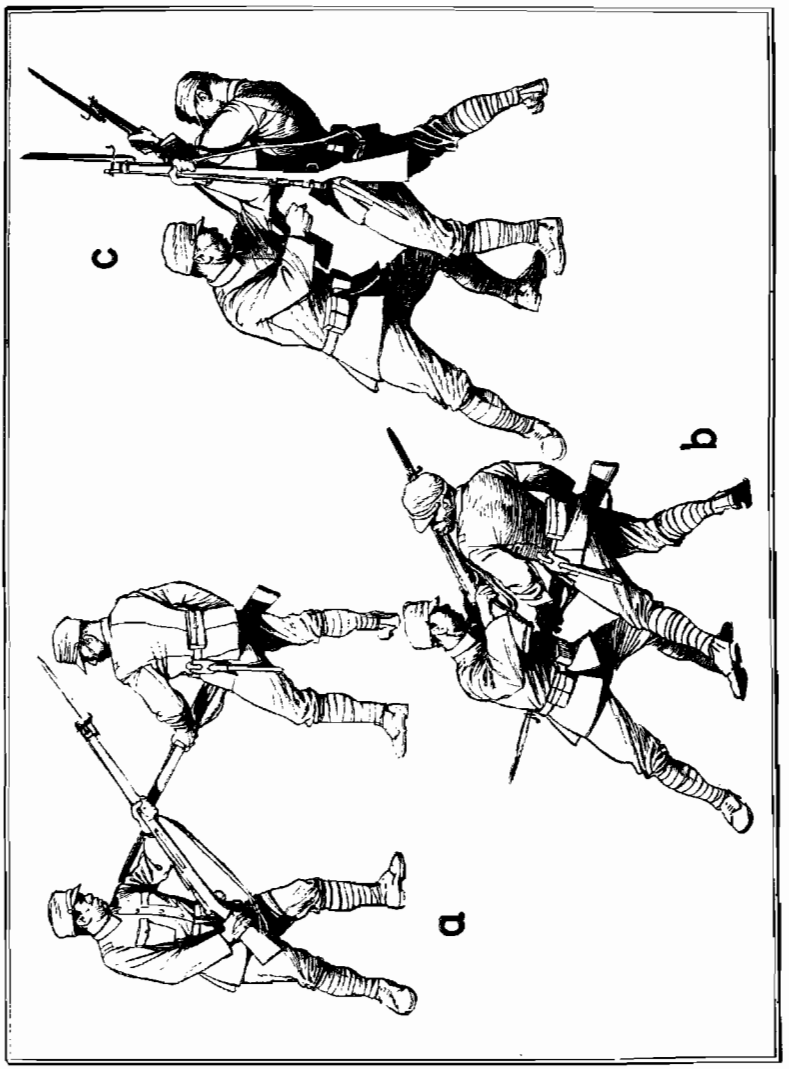


Figure 22.—Executing Blows with Rifle.

When the opponent attempts to drive home a blow, advance and block the opponent's rifle with the left arm; at the same time, counter with the right fist or right knee (see fig. 22c).

(3) *Execution of Butt Stroke.*—To execute the butt stroke from the guard position, step in with the right foot or step back with the left foot, so that the body is sideways to the opponent; at the same time, draw in the left hand, extend the right hand, and drive the butt diagonally upward through an arc to the opponent's face or the side of his body (see fig. 23).

Figure 23.

To counter the butt stroke, step in quickly to block the stroke, and, at the same time, hit the opponent with your fist or knee.

(4) *Execution of Right Punch.*—To deliver the right punch, release the rifle from the right hand; at the same time, step in

with the left foot forward, and punch the opponent in any vital opening of his body (see fig. 24).

Figure 24.

To counter the right punch, follow the direction given for countering rifle blows—see subparagraph d (2).

(5) *Instructions for Hitting with the Foot or Knee.*—To hit the opponent with the foot or knee, hold the rifle with both hands, and unbalance the opponent by pushing or blocking; at

the same time, knee him or kick him in the groin or testicles (see fig. 25).

Figure 25.

To counter such tactics, turn the body sideways, with the right foot forward, and counter with the butt stroke.

(6) *Execution of Short Thrust to the Throat.*—To execute this movement, grasp the rifle near the muzzle with both hands—the

right hand just above the belt line, and the left hand just above the right—and thrust at the opponent's throat (see fig. 26).

Figure 26.

To counter this thrust, carry the rifle forward and upward with both hands, and counter with the butt stroke to the face or head.

Section II. SMALL-UNIT TACTICS USED BY JAPANESE AT NIGHT

1. INTRODUCTION

Tactics used by Japanese companies and smaller units in night attacks are described below. This information, based on enemy sources, appears to be a fairly complete summary. An earlier discussion of Japanese night operations appeared in *Intelligence Bulletin,* Vol. I, No. 3, pages 44–51.

In the paraphrased Japanese manual which follows, particular attention should be paid to the enemy's reconnaissance methods, his massing of forces (the main body) in the approach march and during the early stages of the assault, and his reliance upon the bayonet in rushing hostile positions.

2. THE MANUAL

a. Preparations

Upon receiving orders for a night attack, company commanders acquaint their platoon leaders with the major points of the plan. Preparations are begun, with special emphasis placed on gaining a thorough knowledge of the terrain and on the disposition of hostile forces.

The thoroughness of preparations will depend upon the situation. If there is an interval of several days between the formation of plans and the actual attack, successive patrols will be sent out—at least one of them during darkness.

b. Reconnaissance

Knowledge of the terrain and of hostile dispositions is normally gained by reconnaissance patrols, each of which consists of five or six men (never more than ten). A reconnaissance by a small patrol led by an officer is considered highly desirable before a night attack.

Forward lookout posts are then established for the purpose of observing new developments. If necessary, these are investigated, in turn, by additional officer-led patrols. The company commander also makes forward observations, and his headquarters personnel maintains a continuous lookout.

In reconnoitering, our patrols get as close as possible to the hostile positions, and try to induce the opposing forces to fire or to attack, so that they will reveal their strength and their positions. If possible, our patrols fix the exact location of these positions by measuring their distance and direction from some easily recognized terrain feature.

The reconnaissance also determines the type, strength, and location of obstacles to be met in the night attack. Outguards, flanking machine-gun positions, and illumination methods are noted. Nearby terrain is inspected. Subordinate leaders familiarize themselves, under night conditions, with the hostile positions and the terrain involved. If possible, the entire unit which is to take part in the attack is given the opportunity to view, from a vantage point, the terrain over which the attack will move.

Normally, soon after dusk on the night of the attack, a patrol goes out to lay out the approach route, which, to the greatest possible extent, follows continuous terrain features in the desired direction. Roads, railroads, telegraph lines, and ridge lines, or

other topographical features are thus used to maintain direction at night. The approach route is usually marked with pieces of white paper or cloth, or personnel may be stationed as markers. Ropes may be stretched along the route, and distances paced off.

c. The Approach

In the approach march, the company advances in a line of columns, but other formations are used freely to cope with special situations. Within the company, the squads move in a very close formation, with the minimum distance between men. The men may advance with a hand on the shoulder of the soldier in front. Also, they may advance at a crouching walk.

When the company is attacking independently, patrols provide all-around protection. They usually are 30 to 50 yards from the main force, depending on visibility and on the nature of the terrain. If the company is advancing as part of a battalion, patrols are sent out to assigned sectors to the front (see fig. 27). They are instructed to rush small groups of hostile forces, such as sentries and outpost personnel. Groups which the patrols cannot handle are dealt with by a small advance force, previously designated for such emergencies. Meanwhile, the main body of the company continues its advance and takes no part in these preliminary actions.

The company maintains liaison with battalion headquarters by means of runners, but it also takes individual responsibility for maintaining the direction of advance necessary to reach its objective, even if contact with the battalion is lost. To maintain proper contact and direction, the company uses connecting files between the advance guard and the main body. Figure 28, another example of a formation for the approach march, illustrates the use of these connecting files.

In addition to the various methods of maintaining direction which are outlined before the attack, compasses and stars are used for orientation. Flares of different colors may be fired

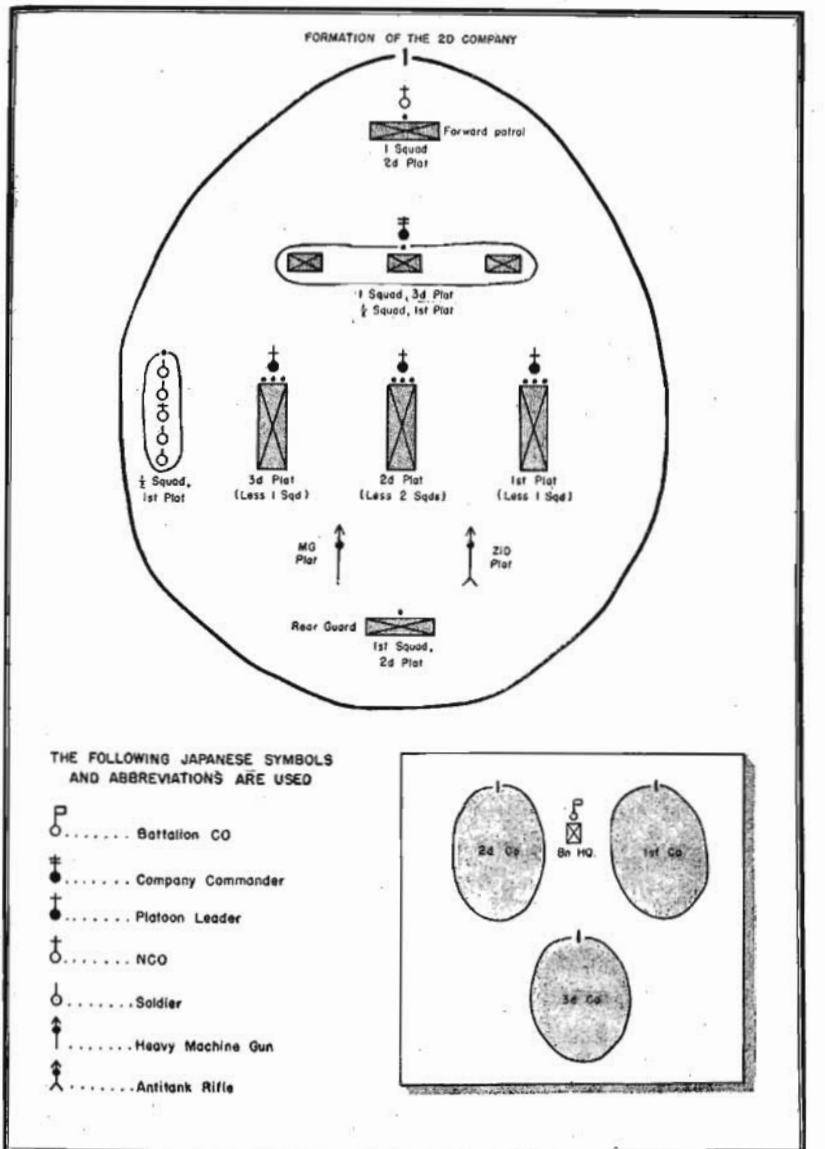

FORMATION OF THE 2D COMPANY
Forward patrol
1 Squad
2d Plat
1 Squad, 3d Plat
½ Squad, 1st Plat
½ Squad,
1st Plat
3d Plat
(Less 1 Sqd)
2d Plat
(Less 2 Sqds)
1st Plat
(Less 1 Sqd)
MG
Plat
ZID
Plat
Rear Guard
1st Squad,
2d Plat
THE FOLLOWING JAPANESE SYMBOLS
AND ABBREVIATIONS ARE USED
Battalion CO
Company Commander
Platoon Leader
NCO
Soldier
Heavy Machine Gun
Antitank Rifle
2d Co
Bn HQ
1st Co
3d Co

Figure 27.

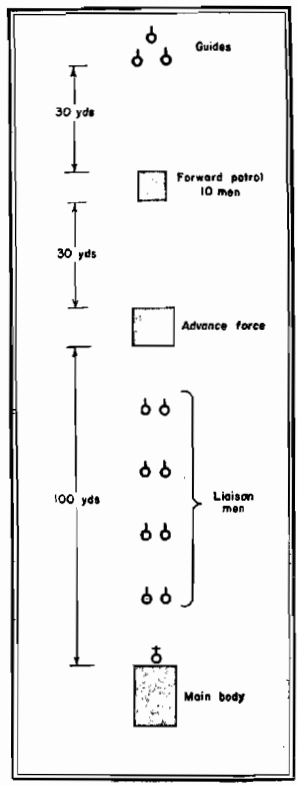


Figure 28.

at times and places designated in advance. Pairs of lights may be set out to the rear; when these lights are lined up, they indicate the correct direction. As a rule, some of the personnel of the patrols used in earlier reconnaissance serve as guides (the others accompany the main force), and show the way by flashing signals to the rear, with a shaded flashlight.

The company commander moves at the head of his force, giving orders by signal (flags or white cloths). Heavy weapons advance behind the company, since they are rarely used for

the attack, but are needed in defending captured positions. Sometimes these weapons are used to fire on hostile illuminating equipment. Light machine guns are kept well to the rear of each squad. Automatic guns (antitank rifles) are usually left in the rear, since tanks are not likely to be encountered at night. Pack horses for the automatic guns and for the heavy weapons usually remain with the ammunition platoon.

The company reserve, usually a platoon, is kept in readiness to counter any enemy [United Nations] attempt to surround our attacking forces, or else the reserve may execute a flank attack on the objective if the frontal assault by the main force bogs down.

The approach march ends at a previously selected point, and the company pauses briefly to complete preparations for the final assault. This point is as close as possible to the hostile forces—usually about 300 yards on ordinary terrain. Here, final contact with forward patrols is made, final details regarding demolitions are decided upon, and final dispositions for the assault are carried out.

Absolute secrecy and quiet are enforced prior to an attack. Commands are given by signal only. Lights are concealed, and are used only for signaling purposes. Camouflage is used even after dark, and precautions against hostile patrols or spies are redoubled. Personnel usually wear white cloths for identification, and the countersigns are drilled into every man.

d. Demolitions

Detailed plans for demolishing obstacles are worked out on the basis of information obtained by reconnaissance and observation.

For ordinary demolitions, such as the task of cutting a gap in barbed wire, a few men from each platoon are designated. If sturdy obstructions, such as pillboxes, must be overcome, a detachment of engineers (about 15 men) will be assigned to perform the task, under the direction of the company com-

mander. These engineers are demolition experts, equipped with Bangalore torpedoes and mines.

Points where gaps in wire entanglements are to be cut usually are in areas easy to approach, or in areas difficult for the opposition to cover with fire. In any case, the selection of these points is dictated chiefly by the plans for the attack. Gaps for night attacks are normally at closer intervals than those for day attacks.

Demolitions are completed just before the assault. Premature demolitions, which might reveal the attack plans and allow time for repairs, are avoided; however, allowance is made in time schedules for possible hostile interference.

Demolitions are executed as secretly as possible. Force is employed only when time is too short or hostile interference too great. If necessary, patrols are dispatched to protect demolition teams or to capture the points selected for demolition.

The time element involved in executing demolitions should be noted. Making a gap in barbed-wire entanglements 6 yards deep requires from 2 to 3 hours when the work is done by one man, and from 1½ to 2½ hours when it is done by two men.

e. Assault

From the position where the approach march has ended, the company moves out in a body, as secretly as possible, to within rushing distance of the opposing forces—crawling, if necessary. The company commander usually moves at the head of his unit, directing its full force and controlling his subordinates with positiveness. The rush is made with great energy, silently and without fire. The objective is taken by use of the bayonet.

If hostile forces are encountered before the main objective is reached, they are dealt with by a detachment from the main body. A detachment may also be used to neutralize important pillboxes or other points of resistance to the attack (see fig. 29).

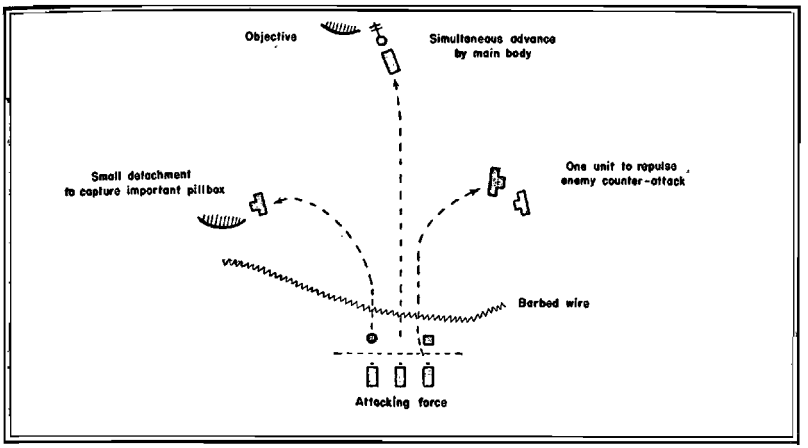


Figure 29.

Although effective hostile fire may stop our advance momentarily, our forces determinedly try to continue—creeping or crawling, and utilizing shadows. If our forces are near, they may close with the bayonet immediately after receiving fire. If they are too far away, they keep moving forward independently until close enough for the final rush.

[Observer's comment: The Japanese are especially afraid of being caught by fire while passing through the breeches in the wire. They probably are prepared either to cover this phase with smoke, or to send patrols ahead to cover the main body while traversing the wire. If it appears necessary to reduce troublesome pillboxes, or to repel small counterattacks during the final assault, units are designated to take care of these tasks.

In dealing with pillboxes, the Japs stress surprise and deception, and employ varied and original ideas for the latter. Smoke, dummy soldiers, gun flashes, or small forces operating in the opposite direction from the attack are standard stratagems. To overcome the defenders, assault from the rear is preferred.

Under some circumstances, the Japanese may be expected to use only a part of the company to seize the objective, afterwards holding it with the whole force. When opposition at the objective is small, and when there is likelihood of hostile fire from outside the defended position, it is not considered advantageous to expose the entire company unnecessarily. And

where some terrain feature makes possible a surprise attack and breakthrough by a smaller group, it is thought better to hold back the main force, whose movements might be hampered by this same terrain. In every case the company commander leads the attacking force in person.]

f. Reorganization

Once the objective has been gained, the company halts and reorganizes. Patrols are dispatched immediately to pursue the hostile forces and reconnoiter their rear positions and the terrain to the rear. Dispositions are made to repel counterattacks, and fire power is sited for close-range use. However, hand-to-hand fighting is preferred wherever possible, and weapons are not loaded without orders from the company commander. Platoons automatically send out all-around security patrols. If the ground is to be held permanently, they may change positions before daybreak to limit damage from hostile air and artillery attack.

Any hostile forces remaining in the vicinity are mopped up. If necessary, the whole company is used for this task. Dispositions for defense and security measures are supervised by the company commander himself.

Section III. COMMENTS BY OBSERVERS ON FIGHTING IN BURMA

1. INTRODUCTION

This section consists chiefly of comments by individual British officers on combat against the Japanese in the western Burma area. Since these comments are based on actual fighting experience in rugged jungle terrain, they should prove helpful to U. S. officers and enlisted men who will participate in jungle warfare. However, it must be borne in mind that the comments are not official British doctrine. The names of the British officers are omitted.

2. ENEMY REACTION DURING COMBAT

The following comments deal with various reactions of the Japanese during combat:

"Catch the Jap off guard and he is never ready to fight. When surprised, he literally goes into a panic, screams, and runs. Commence firing, and wipe out the enemy as soon as possible. However, once the

Jap makes a stand, he is not a coward, but a courageous fighter.

"We consider the Jap a very bad marksman, particularly when he is moving. He is a better shot when well organized and static. However, his positions and camouflage are excellent."

"The Jap hates the British artillery, and is literally afraid of it. We found that we could easily make him jittery by fake attacks. Our troops would yell, stamp their feet, fire everything, lay a smoke screen, and, in general, make all the noise possible. As a result, the Jap would fire all arms, thus giving away all his positions.

"The word 'halt' should never be used. It is unnecessary, and its use often gives the enemy time to decide on a quick plan of action. Our soldiers should not be too trusting at night, and should not take too much for granted. They must treat every man as an enemy until he has proved himself.

"In many instances, the Japs learned the names of our units and used them frequently for 'pin-pointing' positions while patrolling at night. Anyone not able to give the password at night must be shot. The password should be changed every night.

"The Jap has difficulty in pronouncing the letter 'L,' so use passwords which have several L's. Patrols going out for several days should be given the password for each day until their return."

3. NOTES ON ENEMY TACTICS

The following comments deal with various tactics used by the Japanese:

"The Japs seemed to prefer the 'circular tour' method of patrolling. Whether they were able to gather much information by this method is doubtful.

"As in all previous campaigns, the enemy has depended a great deal on infiltrations through our lines or movements around our flanks. If a flanking movement was started against him, he would reply by a wider movement of his own. He has a passion for high ground and thick cover.

"We should protect our lines of communication by holding the high points which would be a menace if held by the enemy. All roads are essential because of our extensive use of motor transport."

"The Japs usually slept during the day and moved at night. During the day, while they were in defensive positions, they rarely attempted to fire on any of our forces.

"The enemy forces often would throw lighted firecrackers 15 to 20 yards off to their side. Some of our less experienced soldiers fell for this ruse at first, and fired in the direction of the exploding firecrackers. The Japs, having determined our positions, would then fire on us from the flanks."

"Snipers are a part of the Japanese defensive system. They attacked our forward troops as the

latter advanced ahead of large British forces. However, it is believed that the snipers' major mission is to collect information. We seldom heard of them firing on an individual soldier. Snipers sometimes took up positions near road blocks along lines of communication.

"About the only way to combat Jap snipers is to use stalker-snipers, who shoot the Japs as soon as they are located. The stalker-snipers nearly always work in pairs, making full use of camouflage. While moving, they must be completely under cover. If trails are unavailable, about the only way they can get about in the Burma jungle is along dry stream beds and gullies. The British are now trained to crawl (frequently on their stomachs) long distances if necessary . . . The stalker-snipers who move along the banks of dry stream beds and gullies communicate by word of mouth. Along these avenues of travel there are always places where the gullies and dry stream beds converge. Thus, the snipers can hold prearranged meetings under complete cover. When the snipers meet, they discuss the situation and make future plans."

4. NOTES ON COMBAT PREPARATIONS

A high-ranking British officer has outlined the following preparatory steps for combat against the Japanese:

"a. Training must be hard and realistic.

"b. Each man must be an expert with his weapon, and must be able to use every weapon.

"c. Every man must consider the jungle a friendly place, in which he can move, live, and fight with complete confidence.

"d. Every man must know, and be able to take advantage of, the Jap's weaknesses. He must realize that Jap successes thus far have been largely due to our own errors and omissions rather than to any inherent superiority of the Jap soldier.

"e. Every man must achieve absolute physical fitness—nothing less will do in jungle warfare. He must be able not only to march long distances, but to climb hills, overcome obstacles, and put up with grueling conditions of heat and thirst.

"f. Every man (especially officers and noncoms) must be able to move freely and confidently about the jungle, to stalk and hide, and to use his weapon under all conditions and in all positions.

"g. Every man must be able to move as freely, and with as much confidence, at night as during the day.

"h. Every man must have tenacity in defense, skill and boldness in the approach, and the will—as well as the skill—to close with the Jap and kill him in the attack.

"i. The value of communications must be fully realized.

"j. Cooperation between infantry and artillery must be fully and realistically practiced.

"k. Field artillery regiments and mountain batteries must be trained in jungle methods.

"l. Bad or indifferent leaders must be weeded out.

"m. Training must be carried out in real jungles and under conditions that are as realistic as possible. Man must be pitted against man, squad against squad, and platoon against platoon. Slit trenches must always be dug; concealment must be practiced at all times; sleep must be disturbed frequently; and minor and major exercises must last four or more days.

"n. We must cease to be road-bound and motor-transport minded.

"o. Greater use must be made of pack transportation. Local labor must be impressed as guides, porters, and interpreters.

"p. Half-trained replacements lacking jungle experience must not be sent to join units in the field.

"q. Greater use should be made of planes for dropping supplies and as ambulances."

"The only way you can defend a place in the Burma jungles is to attack. This should feature infiltrations—not mass frontal attacks against strongly defended positions. Keep the Japs guessing. . . .

"The theory that if you hold the high ground you will win does not hold true in jungle warfare because the density of the lower jungle terrain obstructs observation. You must combine holding the high ground with holding the dry stream beds, gullies, and clefts in hills. Clefts in hills are the natural lines of travel and are more easily traversed than low jungle terrain. When all the important parts of the terrain

cannot be held because of a lack of men, it is necessary to use offensive patrols."

"The use of camouflage in fighting the Jap is most important. Be sure that spoil from trenches is properly disposed of, that motor transport is well camouflaged during the day, and that each individual is properly camouflaged. . . .

"Security precautions should be taken with regard to the natives. On several occasions we found ammunition and arms in baskets carried by coolies who had passed through our lines en route to rice fields.

"Arrangements must be made for dealing with refugees as well as with the natives. Neither should be permitted to approach our positions at any time. Very often natives will have to be evacuated from villages that we wish to occupy. . . . Officers and men must be careful not to allow Jap spies to enter camp disguised as natives offering their services. Often an illiterate-looking native may understand English very well, but not give you the slightest indication of the fact.

"We believe that the natives have done a lot of signaling at night by means of fires. They must have fires, of course, but we have noticed that sometimes these have been very large and have burned well into the night—unusual occurrences in the native villages. Reconnaissance planes flying overhead, or patrols from the hills, can easily gather information from fire signals."

Section IV. "THREE JEERS FOR THE SOUVENIR SAP"

1. GENERAL

Intelligence reports from various theaters of operations continue to emphasize the shortsighted behaviour of souvenir-hunting U. S. soldiers.[1] These men frequently risk their lives by pulling or prying off parts of matériel which sometimes have booby traps attached to them, or by picking up small items of enemy equipment.

Besides the immediate personal dangers involved in collecting souvenirs, this practice greatly handicaps the collection of intelligence regarding enemy matériel and equipment. An Ordnance intelligence officer who recently returned from a major theater of operations stated without reservation that the proper collection of intelligence data had been delayed for weeks, and even months, by soldiers who were guilty of the following offenses:

[1] In connection with this section, reference should be made to *Intelligence Bulletin*, Vol. II, No. 2, pp. 72–74, "Souvenir Hunters Cause Needless Loss of Lives."

a. Taking nameplates off enemy tanks and other equipment;

b. Stripping the motors of enemy vehicles of various types;

c. Removing parts from enemy radios and transmitting and receiving sets; and

d. Firing at captured tanks to exhibit marksmanship prowess.

2. SPECIFIC CASES

a. Private (signal company)

This private suffered hand wounds and lacerations of his face and eyes when the propelling charge of a Japanese Model 97 hand grenade was accidentally detonated. His story:

"While passing through antiaircraft positions near an engineer dump on Kiska, I noticed several copper tubes scattered around a case of hand grenades. They caught my eye as possible souvenirs, and I picked one up and put it in my pocket. Later, in our tent, I took it out and examined it near the stove. Apparently the heat from the stove caused the charge to dentonate. Here I am [in the hospital], and I wouldn't recommend souvenir hunting to anyone."

b. Second Lieutenant (AA artillery)

This lieutenant lost two fingers of his right hand and suffered lacerations of his face, eyes, and body when the detonator of a Japanese 20-mm (?) shell exploded. His story:

"I had picked up the shell as a souvenir and had removed the detonator. Like a damn fool, I was trying to pick the detonator clean with a steel tool. I think scraping caused the explosion."

c. Private (engineer company)

Although this is not an instance of souvenir hunting, it is presented here because gross carelessness was involved. The private suffered a wound in his thigh from steel splinters of a shell which exploded when it was tossed into a campfire. His story:

"We were working on the beach and had carelessly built a fire near a large quantity of enemy ammunition. It was buried in the ground and lying around loose on the top. Someone threw a round into the fire and I got hurt."

Section I. THE INFANTRY LIEUTENANT AND HIS PLATOON

1. INTRODUCTION

The following discussion about the infantry lieutenant and his platoon is reproduced from a British Army training memorandum which was published in India. Although this article was prepared primarily for junior officers who have faced, or will face, the Japanese, it may be read with profit by officers in other theaters.

The article is written in an informal style, and is not intended to represent official British doctrine. Because its contents are highly informative and interesting, it is reproduced here substantially in its original form. The British title for the article was "What an Infantry Subaltern (lieutenant) Really Is."

2. THE ARTICLE

a. General

In the bad old past, it was a common practice to assign to the infantry all those officers and enlisted men for whom no "better"

employment could be found. "You don't need anything special for the infantry" and "Anyone can be made an infantryman" were typical of phrases frequently heard. The result was that many unsuitable officers found their way into the infantry. Subsequent events have proved the fallacy of this policy, and the infantry is now being recognized, not as an insignificant and even contemptible "poor relation," but as a skilled and essential partner on the battlefield.

The purifying flame of battle has wrought many changes in all officer ranks of the infantry, and those men who are temporarily unsuited for exacting duties of infantry work are being removed. The task of developing competent infantry officers also has been greatly aided by the School of Infantry [England], where today's young officer was taught his trade, a trade so exacting, so varied, and so thrilling that it began to attract, not the unwanted, but men with the spirit of adventure, men with a desire to lead their fellow countrymen into battle, and men with a thirst to avenge themselves on our enemies.

In battle the responsibility of the infantry lieutenant is very great indeed. He must draw on his common sense, cool courage, and determination; on his ingenuity, his cunning, and his patience. If he fails, and the enemy breaks through, he has failed those who were dependent on him. If he destroys the enemy, he has done his job properly.

b. Officer Qualifications

In the infantry there can be no such thing as an officer who is "all right, but—" or "a decent chap, but—" or "he'll be all right in action, but—." There is no such thing as a second- or third-rate infantry officer. There can only be the first-class officer who looks after his men, loves his weapons and his job, and is proud of his platoon and its skill, as well as of his own.

To reach this standard must be a matter of training and psychology, each of which plays an equally important part in

the life of the lieutenant and enables him to bring his men to a perfect pitch to support him in his craft.

c. Basic Training

There is no room here to deal fully with basic training; however, three aspects must be emphasized—"Weapon Training," "Fieldcraft," and "Waiting." The men must be so trained that, tired or fresh, asleep or awake, they still will handle their weapons with accuracy and speed. In this they must never fail, because close-quarter jungle fighting does not permit second chances. "Fieldcraft" and "Waiting" go hand-in-hand with "Weapon Training." The former instills the ability to move or be still without being seen or heard. "Waiting" is the corollary of both, and this is where the necessity for perfect discipline comes in. Hold your fire until a kill is a certainty. Dead men tell no tales. Those Japanese soldiers who have just appeared out of cover over there, 600 yards away—can you guarantee to kill all of them before they get back to cover? No? Then, wait, wait, and wait. Even at 300, 200, or 100 yards, one of them might get away. At 50 yards the kill is a certainty.

Fire opened too soon is a miss, and a miss discloses your position. This, then, is the third vital point in basic training: the tight discipline which keeps your men calmly waiting for the approach of the enemy.

Much that you must teach will be found in the printed word, and the officer necessarily must read and pass on to his men the knowledge he has gained. But there are many more things unprinted, at least not in standard text books, which should be part of the infantry officer's stock in trade. For example, memorizing maps is an essential to night work of any sort, and night work is a vital part of your training. Patrols, occupation of positions under the enemy's nose, ration and ammunition parties, and reliefs are all night operations. So night-mindedness is essential, but to teach it to your men will require constant and patient practice.

Train your men to conceal themselves. A located position can be a death trap for the men in it. Have your alternate position and your dummy position, and, if you must show yourself, do so at the dummy position. Don't forget those tracks. If they must be there, let them lead past your real position to your dummy. When going into the real position, see that the men step clear off the trail and make no mark at all. It will pay in the end, and the platoon commander who ignores this elementary bit of battle discipline will probably have the lives of three or four men on his conscience, and be rather more than a fool! If he observes it, he will be cunning, which is just as it should be. Therefore train, train, and train again until it is automatic.

"Hey, you! What's going on over there?" Are you in the habit of saying this? Why not climb that tree, or go and have a look over that crest, or, if you like, send two or three reliable men to a point from which they can see? They will be able to signal back. By the way, do they know the Morse code? Well, you will never regret having taught it to as many men as possible. Information will reach you more promptly, and you won't have to spend so much of your time running about the countryside.

"That was rather a fast one!" Yes, but you must be ready for the fast ones. So train against surprise. The enemy relies on it. If you aren't surprised, you've stolen a lead on him. When your platoon is on the march during an exercise, think what you would do if you were a Jap—and then do it. Ambush your men on the road, and have them attacked from the air and by armored-force vehicles. Set a day when all rations are to be cut off, and work out impromptu messing. Designate casualties, and see how much your platoon knows about first aid and whether assistant squad leaders are really fit to take the place of squad leaders. If you and your men have practiced together, you will automatically react to an emergency, and not become disorganized by it.

Map-reading and terrain estimation are vitally important. When you read a map, you must be able to visualize the entire countryside at a glance.

It is impossible to stress marksmanship too much. Practice and practice!

Another point to remember is patience. The Jap will do everything he can to make you open fire so that he can locate your position. Don't let your men fire whenever they see the enemy—in other words, don't let them hand him a map of your position. You, too, want to know what the enemy is up to, so wait—wait and watch his plan develop, until he is so close that you are certain of killing him and all his friends. Wait, too, with your automatics. Wait until you have a really good target before firing anything except single rounds. Remember that the Jap observer is waiting for that rat-a-tat-tat to pin-point those light machine guns of yours.

d. Administration

What is the use of training your men to be killers, if they can't be brought to the fight and maintained there? Never rely entirely on others to wet-nurse you. The platoon commander must know exactly what his duties are in looking after his platoon. The soldier gets, and expects to get, a lot—therefore, you must train for your job.

Never take "No" for an answer in the case of your vehicles or equipment, if you know the answer to be "Yes." Be merciless with men who abuse or neglect them. Remember that neglect of clothing and equipment now may mean the loss of lives in battle later on. Therefore, make regular equipment inspections. One day you will have great need for this equipment, this vehicle, and this mule, and if they break down, or are missing at a crucial moment, have a look at the man who was responsible—examine yourself in a mirror.

Don't be helpless if the rations don't turn up. Always have something up your sleeve. It may be some chocolate or cocoa or even some biscuits. It may not be much, but something is better than going into action with an empty belly. What about getting a goat? or even some bananas? or can you shoot a deer?

Don't be afraid to give your men raw food to prepare, if the normal supply fails. You have taught them to cook in their mess tins, or, if you haven't, you should have. So give them a lump of meat and tell them to cook it. They may not know much about it, but they will get a move on if they are hungry. Train yourself to know what to do, so that you can tell them. Don't forget that dried cow manure, if available, is as good as coal, and that the inside of a dead bough is usually dry, even in the wettest weather. Never be in the unenviable position of facing your hungry men with "I'm afraid we shall have to wait until the rations come up."

Don't let the medical officer off until he has taught two men in a squad and one in your platoon headquarters the rudiments of first aid, and until he has taught you advanced first aid. A wounded man will look to you, and expect you to help save his life. You must know what to do, and how to do it confidently. You will never forgive yourself if you lose a man through neglecting your chances to learn. Make up a first-aid kit with bandages, linen, absorbent cotton, iodine, safety pins, and other essentials. Don't take "No" from the medical officer when you ask for these items.

Later you may scrap some of these points in favor of still better ones that you have thought out for yourself. When you do this, you are beginning to be a good administrator.

e. Psychology

This is a frightening word, but few words mean more to the fighting soldier, although he probably doesn't realize it. All training is valueless unless the spirit is in it, and the young officer who can get behind his soldiers' minds is a winner all along

the line. So stir them up. They are fighting infantry, aren't they? Breed pride among them in being "the first in action"—"the spearhead of the Army." Write a platoon or company song to a tune that all the men know, one that has a good swing to it. Make your men realize what their job means. Make them realize, and be proud of the fact, that they are the most essential service in the Army, and that the success of the battle depends on them. Make them feel that they are the toughest, most cunning, most skillful killers in the world. When the time comes, they will be just that.

f. Getting Ready and on the Way

When the orders come for your move, you will have plenty to think about. Are your men completely ready as to clothing and equipment? Are their shoes in good condition? If not, get them repaired or get new ones. What about the things that afford comfort and pleasure? Find out. Have you got men trained in purifying water? If not, take decisive action to get it settled. What about a postal address for the future? Ask for one.

Vaccination and inoculation? Any doubtful medical cases or dental or eye cases? All these are a matter for the doctor again, and need immediate attention.

Find out all about your destination, once you have been told where it is, and describe the country to your men, as well as any tricks of fighting peculiar to that area. Practice them, and keep your men absolutely up-to-date with their weapons.

Your men know that from now on anyone who absents himself or contracts a preventible disease deserves a name unfit to print.

Before you will have had time to think, your unit will be on its way by sea, rail, or road. Now is the time to tell your men still more about the country and the people they will see. Tell them all you know about the enemy they are going to meet, what his methods and weaknesses are, what

we can do to him, and what we will do. Remember to tell them how to behave toward local inhabitants. Every soldier is judged as a representative of his country, and a country judged by its representatives. One ill-behaved soldier can turn doubt and hesitation into open hostility.

Alert, clean-looking, disciplined soldiers, who are cheerful, courteous, and well-behaved, are the best ambassadors in the world.

g. Arrival and Preparation for Action

You have done everything in your power, and more than you thought you could, to prepare yourself and your men for action. Now you are preparing to reap what you have sown. If it was a good sowing, yours will be rich harvest. You will have realized what your responsibilities are in administration and training for battle. As opportunities occur, you must continue that training, adapting it to the country in which you find yourself.

Now for your job in the forthcoming operations. Whip around and meet the artillerymen, the engineers, and the tank officers—if any—with whom you will be fighting. Get to know them really well, and see that they get to know you better and that they trust you. Listen to their points of view and don't force your own. Although you know the real facts, they all will think that their own job is the most important one, and will continue to think so until they see you in action and realize how much you have done to help them. Remember that you will want supporting fire from the artillery, and that the engineer will get you that bit of wire or those mines. And what about that young antitank gunner? You may have to rely on him a great deal one day. Don't show off—that's fatal. Be confident, not "cocky". Leave that until after the battle. When you have stopped all the Japs, you can indulge yourself a little if you wish.

That is the junior officer's personal preparation for battle.

Now go back to your men. Don't leave them too long just before their first battle. Tell them what grand chaps the artillerymen are and how they are going to help, and how you are going to protect the antitank gunners and the heavy machine gunners. Tell them what the show is all about. Tell them absolutely everything that isn't a breach of security, such as the sort of things the Japs have been doing, what division or regiment they belong to, and the best way of killing them; describe to them the operation and how it probably will be carried out; tell them where and when the operation will start, the part they will play in it, and who will support them.

You must not forget these points. Your chaps are about to meet the enemy, possibly for the first time. No sane man would ask his soldiers to fight blindly, not knowing what it was all about.

h. In Action

Your company commander has given his last word; the company's second-in-command has said his piece about administration, and you are waiting for the fight to begin. You are frightened, but not in the accepted sense. Every healthy man on the eve of his first battle is afraid—not of wounds or death, but afraid of being afraid.

Don't worry. You won't be yellow. You are trained, and so are your men. You will be nervous to a degree before it starts, but once it has started, you won't have the time to be anything but cool and efficient.

Now you are in action. You have placed your squads. You have seen that each man has got an arc of fire and observation. You have given your mortar a task to do. You have camouflaged all your men so that they are completely hidden. You have told them all about the forthcoming battle, where they are, what they are doing, and with whom. They are in the ring, waiting. Now you think of your battlefield discipline. You

must dispel the boredom of waiting and the fear of battle. You must keep up the men's morale, as well as your own.

Quite possibly you may be dive-bombed while you are waiting—a particularly unpleasant nuisance. However, it's surprising how few men get hurt, if your battle discipline is right. The bombers probably haven't seen you, and are only bombing an area. Anyway, noise can't kill you—the chances of a direct hit are 1 in 10,000, and if you can't take a bet on that, you shouldn't be a soldier. You have already been told not to let your men move about in their squad positions—remember it—it is battle discipline.

You will be shelled—you will hear the dull thud of the artillery or the hollow pop of the mortar, the whine of the shell getting nearer and nearer, increasing to a roar—and then the colossal burst! You are being shelled, and there will be a lot more of it, so look out.

Whether you are first attacked by bombs, mortars, machine guns, or what have you, you can be sure of one thing: when it comes, you are not an individual at all—you are a commander of soldiers. You can be sure that every man will look straight to you for guidance. Now is the time, once and for all, to make your name. Grin like hell and go on grinning. Don't be too funny; say something casual, or even absurd—anything for a laugh. If you can do this when your men are strained, you are over your biggest hurdle.

Cultivate your platoon "funny man"; he can be a gold mine.

If you are not fighting, take cover. Your men will follow your example.

When you have taken care of your men, you can be an individual again, and think of yourself. Light a cigarette or your pipe; it's a great steadier; but when you are doing it, turn your back to your soldiers because, without knowing it, you will be a little nervous, and your hands will destroy any impression of nonchalance that the men may have gained. While you are smoking, think whether anything you have done, or have failed to do, has been responsible

for your being fired on, and, if so, correct it at once—shift to your alternate position unless you are quite satisfied that it was general harassing fire, and not observed fire, to which you were being treated.

You may not always be as lucky as we're assuming you were in your very first experience of being under fire. Later, by sheer bad luck, you will see men killed or badly wounded. Then your men will turn to you not only to see how you take it, but to see what you are going to do about it. It's a grim business; some of your best friends in the platoon are lying dead or maimed. But you have a man's job to do. After you have attended to the wounded, remove the dead from the position. You know first aid because you have been trained—apply it. If some of the wounded are noisy, try to quiet them; if they won't be quiet, remove them to a point where they can't be heard. Nothing is more demoralizing to the survivors' morale than listening to a moaning casualty. The dead you can bury yourself. If no chaplain is available, take his place. Mark the grave, take the map reference accurately, and send all documents and the identity disk [dog tag] to company headquarters. Later, you will, of course, write to his wife or mother.

Without knowing it, you have changed—and your men have changed. You came into action a highly trained and efficient team, but really it was only a job of work to become trained, and destroying the enemy was a vague sort of intention behind it all—but now the enemy has killed or wounded some of your best friends. You are a team awaiting revenge. You are perfect soldiers.

Section II. NOTES ON PATROLLING IN JUNGLES OF BURMA

1. INTRODUCTION

British forces in the jungle areas of Burma are emphasizing the importance of patrolling in their combat against the Japanese. The following notes on patrolling summarize conclusions drawn by British officers, or by units, from their combat experiences in the western Burma area. These conclusions, while not official British doctrine, should prove a helpful stimulus to U. S. thought on the subject of patrolling.

2. PREPARATIONS

A British officer recently stated that, for jungle fighting, a soldier can hardly have too much training in patrolling. The improperly trained soldier, he continued, is completely lost when he gets off paths or trails in the jungle. "He must learn to find his way about in the jungle, and not be afraid of it. The jungle is totally new to our farm-bred soldiers as well as to our city-bred soldiers, since it bears no

similarity to either environment. The jungle can be a friend and protector to you, as soon as you know how to utilize it.

"You cannot utilize the jungle very well unless you are a well-trained observer. You must know all the means of detecting the presence or passage of the enemy—such as fires, ashes, cartridges, broken undergrowth, footprints, misplaced foliage, and so forth.

"When fired upon in the jungle, patrols should pause momentarily to observe and formulate plans. These should be executed promptly—the patrols must keep moving, and not pin themselves to the ground. They must be trained to get rid of obstacles quickly or to avoid them, depending on their mission."

Another British officer said, "In the past, lack of clear orders has been responsible for more bad patrolling than any other factor." He added that orders should be "crystal clear and not beyond the ability of the patrol to execute."

A large group of British officers submitted the following points for consideration in connection with giving orders to patrols.

"(1) Give the patrol leader all available information about the enemy.

"(2) Give him full information about other friendly patrols which are operating, or which may operate, in the neighborhood of this area before he returns.

"(3) State his mission in clear and unmistakable terms.

"(4) State, in general terms, the route the patrol will follow.

"(5) State the time by which the patrol is required to return, and the place to which it should endeavor to return.

"(6) Give the recognition signal for challenging friendly patrols.

"(7) State clearly what action the patrol leader will take if he meets the enemy before completing his mission, or after completing it. For instance, should he attack, withdraw, or remain in observation?

"After stating the mission to the patrol leader, have him repeat the main points.

"Don't send out more men than are necessary for accomplishing the mission. Every unnecessary man in a patrol is a hindrance and increases the chance that the patrol may be discovered."

Another group of British officers had this to say:

"A company is not a patrol, not even a large fighting patrol, but it provides the element from which patrols are produced. Whether a whole company is sent out depends upon the distance patrols will have to cover in order to carry out a mission. If the situation calls for use of a company, the latter will provide the necessary patrols and the remainder of the unit will form a mobile base from which the patrols can, if necessary, be assisted and a base to which the patrols can withdraw after completing their missions.

"It is important that the remainder of the company not take up a static position, where it can be pinned down; therefore, it must operate in a specified area, with a place of assembly having been determined in advance, in case of enemy action which necessitates its use.

"Another way in which a company may be employed in this type of warfare is to carry out an ambush based on information gained by patrols."

These officers considered the Bren gun too heavy for patrols which were to stay out more than two days. The rifle, Tommy gun, and grenade were considered the best weapons for patrolling.

During the daytime, the officers said, Japanese patrols almost invariably consisted of two or three men, who generally were led by a native guide.

3. COMMENTS ON TACTICS

A high-ranking British officer stated that the major slogan for jungle warfare against the Japanese is "Patrol! Patrol! Patrol!" A patrol, he said, must avoid taking up a static defense; it must be "offensive" in its tactics. It should stay out two or three days, sometimes up to six days, and it should be self-sufficient.

"You must outfox the Jap," this officer explained. "The main point is to confuse him as to what you are doing; then you have an even chance of inflicting casualties.

"The Japs watch and listen all the time. They attempt all sorts of ruses to deceive our patrols. We soon caught on to the enemy's tricks, and he appeared to be foxed completely. . . .

"You can frequently catch the Jap on the loose—swimming, eating, resting, playing, and so forth. Usually when he is caught under such circumstances, he is absolutely unprotected. Once, during a recent campaign, one of our platoons caught more than 100 Japs completely off guard; the platoon killed 30 of the enemy while the others fled in confusion.

"The British patrols usually moved by day, and frequently caught the Japs unaware. At night the patrols generally hid out, away from streams, watering places, and trails."

A group of British officers made the following suggestions for getting better results from patrolling:

"a. Avoid the 'circular tour' tactics by patrols; use a larger number of smaller patrols to deal with a larger number of smaller areas.

"b. If possible, avoid entering villages or being seen by local inhabitants. More reliance should be placed on silent observation at close range.

"c. If it is impossible to avoid being seen, employ the maximum guile to conceal the route and intentions of the patrol. For example, the patrol leader might tell local inhabitants of a village that his destination is a certain place. The patrol would actually

start for the place named, but later would either return close to its starting point and watch the village for, say, 24 hours, or cut through the jungle to another route.

"d. Seek to complete the mission of the patrol. The patrol must not turn away because of resistance. If its route is barred, the patrol must probe the enemy front until it finds a suitable approach route, or it must try to maneuver around a flank.

"e. Use cunning, regardless of whether the patrol's mission is to fight or strictly to reconnoiter.

"f. Patrol deep enough to get the desired information."

U. S. GOVERNMENT PRINTING OFFICE: 1943


UNITED STATES OF AMERICA
PATENT OFFICE

Share this copy!

VOL. II NO. 6 FEBRUARY 1944

INTELLIGENCE BULLETIN

FOR USE OF MILITARY PERSONNEL ONLY. NOT TO BE PUBLISHED

MILITARY INTELLIGENCE DIVISION
WAR DEPARTMENT . . . WASHINGTON, D. C.

Intelligence Bulletin

VOL. II, NO. 6
MID 461

MILITARY INTELLIGENCE DIVISION
War Department

WASHINGTON 25, D. C.,
February 1944.

NOTICE

The *Intelligence Bulletin* is designed primarily for the use of junior officers and enlisted men. It is a vehicle for disseminating to them the latest information received from Military Intelligence sources. In order to insure the widest possible use of this bulletin, its contents are not highly classified; however, it is for the exclusive use of military personnel. Reproduction within the military service is permitted provided that (1) the source is stated, (2) the classification is maintained, and (3) one copy of the publication in which the material is reproduced is sent to the Dissemination Unit, Military Intelligence Division, War Department, Washington 25, D. C.

★

It is recommended that the contents of this bulletin be utilized whenever practicable as a basis for informal talks and discussions with troops.

★

Readers are invited to comment on the use that they are making of the *Intelligence Bulletin* and to forward suggestions for future issues. Such correspondence may be addressed directly to the Dissemination Unit, Military Intelligence Division, War Department, Washington 25, D. C. Requests for additional copies should be forwarded through channels for approval.

568576°—44——1

TABLE OF CONTENTS

PART ONE: JAPAN

NOTES ON JAPANESE JUNGLE DEFENSE

LIST OF ILLUSTRATIONS

NOTES ON JAPANESE JUNGLE DEFENSE

Section I. INTRODUCTION

"Part One: Japan" of this issue of the *Intelligence Bulletin* is devoted almost entirely to information concerning Japanese jungle defenses.[1] Section II deals with tactics, principally those of the squad, platoon, company, and battalion; Section III describes various types of enemy positions; and Section IV, based mainly on Japanese sources, deals with obstacles.

These sections are not intended to be complete studies of the various subjects discussed. They are based on information from men who have been in actual combat, from observers, and from various enemy manuals or treatises.

According to Japanese tradition, defensive operations are "inglorious," and are to be employed only as temporary measures to halt hostile forces until

[1] Considerable information on Japanese defensive warfare has been presented in previous issues of the *Intelligence Bulletin*. Reference should be made to the following:

Vol. II—No. 4, "Japanese Defense Notes," pp. 17–20; No. 4, "Defense against Airborne Forces," pp. 1–6; No. 3, "Some Defense Techniques Used by the Japanese," pp. 64–65; No. 2, "Defensive Positions" and "Defensive Tactics" (on Attu), pp. 35–38.

Vol. I—No. 12, "Defense Techniques," pp. 61–64; No. 11, "Defense Positions," pp. 65–67; No. 10, "Defenses," pp. 65–69; No. 9, "Defense," pp. 8–11; No. 6, "Notes on Defense," pp. 13–15.

counteroffensives can be launched. Defense, to the Japanese, is not static; highly mobile counterattacks are part of their defensive scheme, designed to disrupt the advance of the opposition and eventually to force a withdrawal.

Nevertheless, the Japanese are usually thorough in preparing defense positions, and their defensive tactics—in many respects similar to ours—are well planned. Their positions encountered to date in distant outlying areas generally have been improvised from local material, such as spongy palm-tree logs, tough coral rocks, sand-filled bags, and sand-filled oil or gasoline drums. However, as their communication lines are shortened, and as it becomes easier for them to obtain concrete and steel, the Japanese are expected to present more durable or permanent types of defenses. The use of concrete and steel on a limited scale has already been confirmed on some Central Pacific islands and in Burma.

As a general rule, the Japanese organize their positions for all-around defense. They make effective use of camouflage and concealment, withholding their fire until our troops are within a few feet of them. Some of their positions are selected with few avenues of escape or none at all. Apparently it is intended that the personnel manning these posts shall fight to the death. And this has been true in many instances. On several occasions Japanese soldiers have been given such instructions as "Get 10 of the enemy before any of them gets you."

Although the Japanese is a tenacious defensive fighter and aggressive in the offense, he is by no means a "superman." Under the stress and strain of powerful United Nations offensive power, he has generally shown the same human frailties as soldiers of other powers at war. For example, several instances have been reported in which our artillery fire and bombing reduced numbers of Japanese to a neurotic state.

568576°—44——2

Section II. TACTICS

1. GENERAL

In the defense as well as in the offense, the Japanese attempt to achieve surprise at the beginning of combat, by means of silence, concealment, deception, snipers, and infiltration tactics. They rely heavily on machine guns, mortars, and grenades for defensive weapons. They stress defense against landing operations, tanks, and aircraft. They frequently use smoke in defense, particularly while changing positions.

According to the Japanese doctrine of defense, mobile troops—including a small number of tanks, when available—are generally employed to cover the occupation of defensive positions. After completing this mission, these troops move back to the flanks of the defended area and protect flanks, reconnoiter, or engage in flanking or enveloping maneuvers.

Japanese forward elements in several instances have allowed a part of a hostile attacking force to pass by their concealed positions, in order to fire on its rear with automatic weapons and grenades. Sometimes the Japanese have let small hostile groups pass by in order to attack large groups which followed.

a. Organization of Terrain

(1) *According to Observers.*[1]—As a general rule, the Japanese organize the high or commanding ground, reverse slopes, and both sides of ravines or valleys. However, in jungle terrain where vegetation is thick in low places and comparatively thin in the hills, they have sometimes chosen to defend the low areas.

The types and arrangement of defensive fortifications have varied. However, the Japanese, when under pressure, can be depended upon first to erect temporary positions by quick digging—even though they plan to use them for only a very short period. As long as they are in the area, they continue to dig and improve their positions.

The Japanese stress the importance of alternate or reserve positions, for weapons ranging from light machine guns and rifles to heavy artillery. Machine guns may be moved several times during a single day. Also, dummy positions are frequently used. A recent Japanese memorandum stated:

"From experiments made during fighting in the Munda area, even against the enemy's tactics of relying upon the omnipotence of fire power, suitably prepared dummy positions and dummy guns were extremely effective in drawing enemy artillery and bombing attacks."

The types of defense positions range from foxholes, rifle and machine-gun emplacements, and slit trenches,

[1] This term is used here in its broadest sense—to include officers and enlisted men who have engaged in combat against the Japanese.

to large bunkers, pillboxes, dugouts, or shelters, which offer effective resistance to small-arms fire and light artillery shelling. (A description of these is given in Section III.)

These positions are frequently sited in great depth along lines of communication, along coastlines, and around airfields or other strategic areas. The positions are so planned as to cover all approaches. They usually form a series of strong points, connected with communication trenches, which may be tunneled under ground, covered over, or left open. When one or two have been neutralized, the others may often be flanked effectively.

Frequently the main defensive positions are occupied by only a few men; the bulk of the troops are held back in reserve for counterattack. In some instances positions covering a front of 600 yards have been manned by one platoon, armed with light machine guns, rifles, grenade dischargers, and grenades. As these positions were further developed, some were reinforced with detachments from the battalion's machine-gun company, or with antitank weapons.

In Burma, isolated squad or platoon outposts have been found anywhere from 300 to 1,000 yards in advance of the main line of resistance. In some instances they are obviously intended to cover approach routes, and the troops holding them may be expected to fight to the last round and the last man. However,

in thick jungle, smaller outposts have been found; they were often located at the junction of gullies or ravines. If these outposts are discovered, they are usually abandoned. The function of the small outpost in dense jungle appears to be that of a "hideout" from which the elements can either move out as a patrol by night or, by remaining where they are, harass hostile patrols using the gulley or ravine that the position commands.

(2) *According to the Japanese.*[2]—

Defensive positions normally will be sited in considerable depth. They will consist of a number of centers of resistance, each of which will be able to defend itself in any direction against all combatant arms.

In general, a defended area will consist of outpost positions, advanced defensive positions, and a main line of resistance.[3] The latter will be divided into infantry centers of resistance and heavy weapons positions. Behind the main line of resistance, other defense positions will be manned by reserve troops. On parts of the front where the danger of penetration is great, alternate positions may be constructed, at an angle to the front. These will connect positions in the main line of resistance with reserve positions to the rear.

As a general rule, the advanced defensive positions will be not more than 2 miles in front of the main line of resistance. However, if the situation permits, these forces may take up posi-

[2] Some of the information presented under subparagraph a (2) was obtained from Japanese sources prior to 7 December 1941.

[3] Although when translated into U. S. military terms this doctrine seems identical with our own, there probably would be differences between the actual detailed setups.

tions farther forward for the purpose of causing hostile elements to deploy prematurely, or to deploy on terrain poorly suited to launch an offensive.

The main line of resistance will be selected so that both infantry and artillery fire can be concentrated to the front. Also, if possible, the flanks should rest on natural obstacles [Editor's note: Japanese doctrine places strong emphasis on this principle]; the terrain should be difficult for the opposition to observe, and should contain as many natural tank obstacles as possible.

b. Fire Plans

As a rule, the Japanese in concealed defensive positions will withhold their fire until hostile troops are close upon them. They believe that surprise and close-range fire will produce a maximum number of casualties and confusion, and therefore enable them to counterattack.

The Japanese generally site automatic weapons with good all-around fields of fire, and provide them with all-around protection. In thick jungle, they usually cut fire lanes for automatic weapons. These lanes are cut to a height of about 2 feet, and present a tunneled effect. The lanes generally cross each other.

In some theaters—New Georgia, for example—the Japanese usually did not prepare fields of fire. They clung as close to our troops as possible, to avoid our infantry mortar and artillery fire.

Machine guns loom large in Japanese defensive fire plans. Light machine guns are almost always in forward areas, and are fairly well concentrated on the

flanks. As a rule, these guns are manned right up to the last minute and then are moved back quickly. Heavy machine guns are used in the general fire plan. They usually are detached for use in platoon areas, on the flanks, and to cover the main lines of approach.

Use of machine guns for cross fire in defense is a characteristic Japanese practice. The guns are emplaced to cover a predetermined area, and to concentrate an intensive cross fire on any point, in advance of the defensive position, which might afford a route of approach. When emplaced in pillboxes or camouflaged emplacements, the muzzle of the machine gun is usually kept some little distance from the opening and on the inside of the embrasure so that any effects from firing is hidden from attacking troops.

As a rule, Japanese outposts consist of a screen of light machine guns. In several instances, these guns, when driven in, fell back on mutually supporting pillboxes and heavy machine guns, supported by the enemy's mortars and numerous grenade dischargers. One observer states that the dischargers are not highly effective except for direct hits or hits in foxholes.

At night, according to Japanese sources, machine guns are sited to concentrate their fire power to the front of units in defensive positions. The enemy, as far as possible, seeks to enfilade the hostile route of approach, or to mass the machine-gun fire on a small area through which it will be necessary for the opposition to pass.

In some cases the Japanese have kept reserve machine-gun crew members hidden in caves or other well-protected positions until they are needed.

c. Use of Snipers

In the jungle, snipers are a definite part of the Japanese system of defense. They usually work in pairs or small groups, and are used for a variety of purposes. Sometimes their main mission is to gather information; in this case, they avoid firing, unless discovered, and remained concealed for long periods to observe movements and dispositions.

Snipers also attack advance units or patrols, frequently from the rear. Sometimes they are left behind in withdrawals to pick off officers. Snipers also may be found covering road blocks or other obstacles, and they usually are found in the neighborhood of pillboxes or other fortifications, above small advanced positions, on the flanks of defense areas, and generally along lines of communication. Reports indicate that the Japanese are still using bird-call signals, whistles, and tappings on logs to communicate with each other.

Snipers by no means confine themselves to trees. They have been found dug in under the roots of certain types of tropical trees, hidden behind trees, rocks, or other natural obstacles, or concealed in thick vegetation. When in trees, they usually tie themselves securely so that they can handle their weapons freely, and not fall out if injured or killed.

In jungle areas, snipers occupying trees for long periods of time have been found to be equipped with mosquito gloves and head nets.

Selection of snipers is believed to be governed in a large measure by their marksmanship qualifications and their camouflage ability. They are usually armed with rifles, and occasionally with light machine guns.

In a recent operation, snipers notched trees to facilitate climbing, and thus gave away their positions.

2. INFANTRY

a. Advance Outposts

In many instances, it appeared to be common Japanese practice to advance a platoon some few hundred yards in front of the battalion main line of resistance. The platoon would take cover, dig in, and usually emplace heavy and light machine guns. Communication was maintained with the rear both by runner and ground telephone lines. The infantry gun was usually located just in rear of the main line of resistance. Extreme advance outposts of four or five men would be sent out from the platoon.

At times, individual platoon attacks would be ordered, and the advance platoon, sometimes supported by a second wave from the rear, would make a limited attack.

There is evidence that, prior to a limited attack, small groups would infiltrate into the hostile area,

568576°—44——3

but whether or not they were special parties is not known. There was a singular lack of survivors from such groups.

Almost invariably, a platoon sergeant would make a sketch of the terrain in the immediate front of his position, and often, based upon incoming reports from scouts and observers, he would plot the hostile positions. These sketches and maps were skillfully drawn.

b. Company Attack

On one occasion, in New Guinea, an attack was launched by about 400 men, composed of elements of three companies, who advanced in two waves. The first wave, apparently attempting to infiltrate, crawled up a slope in jungle terrain to within about 40 yards of hostile positions. Meanwhile a carefully coordinated attack by Army dive bombers was executed against the ridge. Mortars from the rear wave, which was in contact with battalion headquarters by ground line, also directed fire upon the ridge. As soon as the air attack was completed, the mortar barrage lifted and the first wave closed in hand-to-hand combat—decisively defeated, it withdrew in disorder. United Nations units, while pursuing the fleeing survivors, suffered severe casualties by running into the second wave.

It has been noted that where a battalion is deployed in position along a main line of resistance, individual companies will frequently execute attacks.

This seems also to be true from the frequency with

which counterattacks by companies are ordered when the Japanese are fighting a delaying action with successive withdrawals.

c. Ambushes

Ambushing is a favorite Japanese practice, and is often executed by a combat patrol or sometimes by a specially designated ambush party. The methods used are no different from our own, and the ambush is usually directed against very small patrols moving along a jungle trail.

Information on hostile patrol movements is often obtained from friendly natives, and ambush plans are based on these reports.

d. Use of Fire

In one instance, counterattacking Japanese set fire to dry *Kunai* grass to drive United Nations forces from a ridge spur. Closely following the flames, the enemy troops then occupied the ridge.

e. Machine-gun Positions

On the Sanananda track, Japanese machine-gun positions were carefully located with relation to natural terrain features, camouflage, and cover. Generally, they were in intercommunicating trenches, with from one to three heavy machine guns emplaced in series. The emplacements were dug into fairly firm soil with the gun sited behind a parapet, which usually was constructed of logs and designed to permit fire through an embrasure. In some instances, more com-

mon as machine-gun units retreated to hastily prepared positions, the gun was fired from an uncovered shallow foxhole or natural depression without top cover. Thick banyan-tree roots also served as machine-gun positions.

The prepared heavy machine-gun emplacement was often flanked with sandbag parapets, over which was constructed a skillfully camouflaged cover of sandbags and earth packed on top of poles.

Figure 1 illustrates a semipermanent type of Japanese machine-gun position, which included a strongly constructed pillbox with four communication trenches

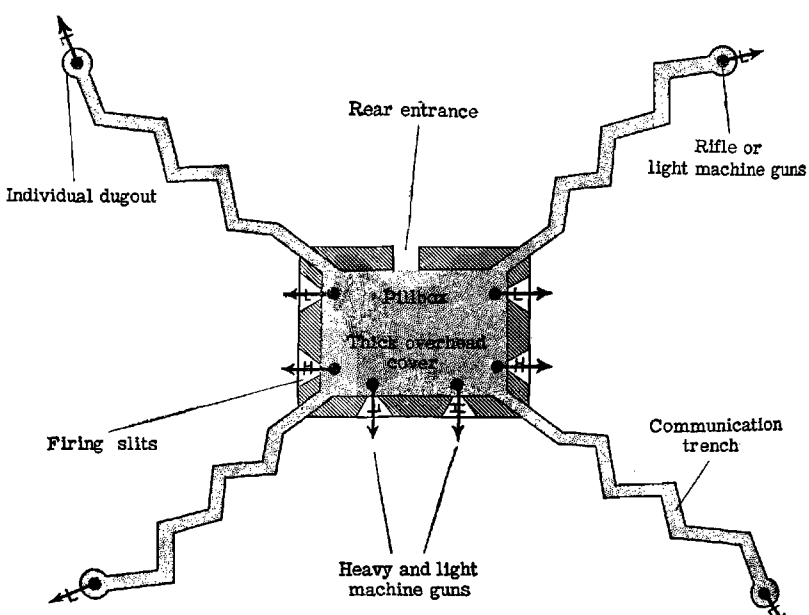


Figure 1.—Japanese Machine-gun Position.

leading out to four small "protecting" dugouts. These were large enough for one or two men, usually light machine gunners.

In New Guinea, the typical heavy machine-gun position had a predetermined field of fire with a fire lane cut through the jungle. These lanes were carefully prepared; small trees and brush were not disturbed. Often each heavy machine gun was flanked slightly to its rear by a light machine gun in a shallow pit or trench. The light machine guns were emplaced to cover the sides of the fire lane, and sometimes had fire lanes of their own. They were usually fixed to fire with a maximum elevation of about 3 feet above the ground.

On several occasions, as additional protection, and probably with the additional function of observers, individual snipers were placed about 25 feet high in trees in a semicircle behind the machine-gun position.

In fixed defenses, if the terran permitted, the Japanese used staggered emplacements to secure concentrated cross fire. This was especially noticeable where high ground caused anything in the nature of a defile. In one area, a series of positions was found with eight guns concentrating cross fire from slight elevations upon an approaching trail.

Experience indicated that, in general, Japanese in the Buna-Sanananda and Mubo-Komiatum areas were not well schooled in the use of indirect machine-gun fire.

The extreme mobility of Japanese machine-gun units, both heavy and light, was notable.

3. AGAINST TANKS [4]

a. General

The Japanese have used few tanks in jungle fighting to date, and therefore their antitank tactics have not been thoroughly tested. It is known, however, that they possess antitank weapons of modern design, and that in training they have emphasized the use of small groups of men, armed with such weapons as mines, Molotov cocktails, flame throwers, smoke grenades, and hydrocyanic gas grenades, for attacking tanks in close country.

Japanese guns particularly adapted for use against tanks include the Model 1 (1941) 47-mm antitank gun, the Model 94 (1934) 37-mm gun, and the Model 97 (1937) 20-mm antiaircraft-antitank rifle. (See *Intelligence Bulletin,* Vol. II, No. 3, pp. 44–45, for a description of the Model I.)

b. Use of "Tank Fighters"

From information received, there are indications that the Japanese train one squad in each rifle company (sometimes machine-gun and heavy-weapons companies organize smaller detachments) in special

[4] For additional details on Japanese antitank tactics, see the following issues of the *Intelligence Bulletin:*

Vol. II—No. 4, pp. 25–26; No. 2, p. 56.

Vol. I—No. 4, pp. 6–7 and pp. 17–18.

methods of dealing with tanks at close range in jungle country.

Japanese instructions, for "the purpose of establishing the proper actions of a squad leader and his men in making a surprise close-quarter antitank attack," list the following weapons and equipment for the squad:

3 wooden rods, 3 to 4 yards long.
Several wooden rods, about 4 inches in diameter.
1 extra rope, about 15 yards long.
Several bottles of 2 *GO* capacity [about 3 gills].
4 shovels.
Rifles and light machine guns.

The list of weapons apparently is incomplete. It is known that such squads carry armor-piercing magnetic mines (in fact, they are mentioned below in the same instruction sheet).[5]

The enemy instructions exhort each man of the squad to "move swiftly and fearlessly until you are as close as you can approach and then make a desperate general assault at the proper time—do not strike too early or miss a favorable opportunity. After penetrating into the dead space [area not covered by tank weapons], stick the explosives [armor-piercing mines] on a flat surface of the tank or, if the ground is hard, throw them immediately in front of the tank."

[5] See Vol. II, No. 1, pp. 6–8, for a description of Japanese mines and grenades, and their booby-trapping possibilities.

Other sources indicate that these "tank fighters" are trained to use the Model 93 antivehicle mine (commonly called the tape-measure mine), smoke grenades, shelter halves (to cover vision and ventilation slits in tanks), and Molotov cocktails. The gas grenades mentioned in subparagraph "a" are designed for use against a tank's vision slits or ventilation slits.

A Japanese order regarding the defense of beaches instructed each company to organize a close-quarter antitank squad, and to construct antitank obstacles around the company positions for the purpose of putting tanks out of action.

The "tank fighters" may work individually or in pairs. Sometimes more than one pair may attack a tank. They usually crawl when moving to within the dead space of the tank's guns. The next step depends on the weapon used against the tank and the method of attack. Their ways and means include the following:

(1) One man attacks the tank with a magnetic mine—as previously described;

(2) One man throws an antivehicle mine about 15 feet in front of the tank. The mine, attached to a long string or cord, is then pulled directly under the tank.

(3) Several pairs of tank fighters move out under cover and place a number of mines ahead of the tank in such a manner that the tank must move over one of them.

(4) Two men fasten a number of mines, about 1 foot apart, to a 150-foot line. From concealed positions, they draw the chain of mines across the path of the tank as it approaches.

(5) A pair or more of tank fighters throw a shelter half over the tank's turret to blind the crew; or

(6) A pair or more of tank fighters seek to smoke out the trank crew with smoke grenades.

4. AGAINST LANDING OPERATIONS

a. According to Observers

Recent reports from the South and Central Pacific theaters tend to confirm that the Japanese are strengthening beach defenses for decisive action at that point. "The fundamental principle of defense," says an enemy treatise, "is to annihilate the hostile forces at the water's edge."

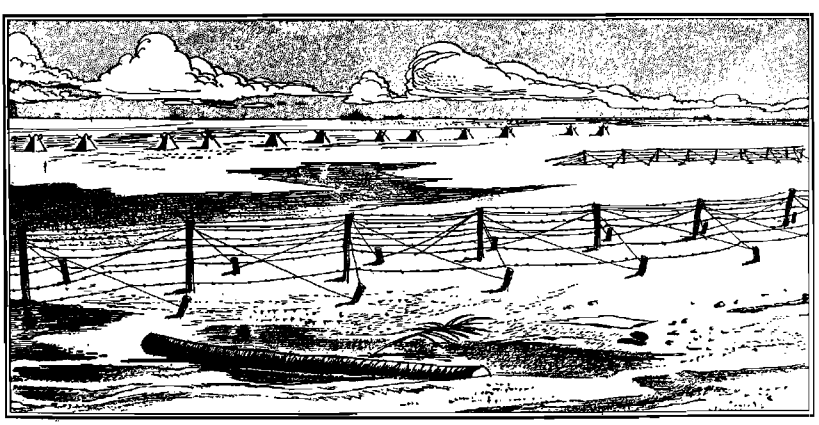


Figure 2.—Japanese Beach Obstacles (as seen at low tide on Betio).

568576°—44——4

Pyramid-shaped blocks, made of reinforced concrete and sunk at close intervals in the coral reef off shore, formed part of the Japanese defense setup around more than half of Betio.[6] (See fig. 2.) The blocks, almost covered at high tide, apparently were designed to obstruct our landing boats. Loosely strung along the reef and on the beaches above the high tide mark was a barrier of a double-apron barbed wire. Antitank mines were dispersed at intervals along the wire barrier. These mines, resembling large kettles without their spouts and roughly twice the size of the U. S. helmet, were also placed at other points on the reef and along the beech, at intervals of about 75 feet. Also found were magnetic antitank mines, and mines resembling 2 dinner plates placed together. These latter were 6½ inches in diameter. Over 200 unused mines were found stored on the island.

Just back of the high-tide mark on Betio, the Japanese constructed a perimeter barrier, made largely of coconut logs, emplacements for various weapons, and antitank ditches.

The defenses in the Munda area were centered around a system of well-concealed, well-constructed pillboxes, dugouts, breastworks, and small gun emplacements scattered along the coast for a considerable distance. Inland, this system extended for 1,800 to 2,000 yards. In addition, "contact" bombs (probably the Japanese Model 93 antivehicle mine) were imbedded around the shore line of Munda Point, to explode upon pressure of about 250 pounds.

[6] A small island of the Tarawa group.

b. According to Japanese Sources

Recent Japanese instructions regarding the defense of a certain beach included the following points:

(1) Construct an antitank ditch about 5 feet deep near the beach positions for the purpose of stopping amphibious tanks.

(2) On terrain hard to defend, cut down coconut trees and use them as obstacles and for concealment.

(3) Erect barbed-wire entanglements in the vicinity of the beach.

(4) Strengthen the forces along the coast at night, and be particularly alert. Each company will be responsible at all times for preventing hostile scouts from infiltrating to the beaches in small boats (such as canoes or rubber boats).

(5) Be sure that each company is equipped with antitank weapons, such as flame throwers, armor-piercing mines [magnetic], and Molotov cocktails. Also maintain a large supply of hand grenades around the beach.

(6) The battalion will complete the construction of reserve positions, clear the terrain for fields of fire, and make other necessary preparations for combat.

A Japanese study "concerning defense against enemy landings" stated that hostile forces must be annihilated on the shore, and that, "therefore the second or third line of defense positions ordinarily will not be established very far to the rear."

The same study also stated that:

Artillery, machine guns, and so forth must be sited so that they can deliver flanking fire, refraining from frontal fire as much as possible.

Sea observation posts must be maintained under Army and Navy cooperation.

Defenses will be semipermanent in nature.

Obstacles in the water should be laid so that they will be effective at high tide as well as low tide.

Location of obstacles should be determined after considering the terrain from the viewpoint of tactics, but the depth of water, even at low tide, must be such that it would be difficult to walk—the depth must be 5½ to 6½ feet. On a shallow beach, where the difference of low and high tide is great, several rows of obstacles are necessary. . . .

Once hostile forces have penetrated the obstacle line, the mission of the forward unit is to take up delaying action until reinforcements arrive. Therefore it is necessary to successively occupy delaying positions. Upon arrival of reinforcements, the forward unit will intercept the hostile forces, or counterattack.

5. COUNTERATTACK

Under most circumstances the Japanese may be expected to counterattack soon after waging a defensive battle. As a rule, these attacks will be concentrated on the flanks—and the rear of hostile forces, if the enemy is able to reach it.

At night the Japanese consider it essential to launch immediate counterattacks against hostile troops which have penetrated their positions.

Usually the Japanese will hold as large a force as possible in reserve for counterattacks. This reserve, more or less centrally located in most cases, will contain tanks and other mobile armored vehicles if the terrain is suitable for their use. Frequently the reserve is divided into groups of 20 to 50 men, who more or less "swarm" forth to counterattack. In a night counterattack on Betio, Japanese officers, with feathers stuck in their helmets, and brandishing their swords, led their troops forward in typical *Samurai*

manner. Frequently these counterattacking groups include only 8 or 10 men, led by an officer. Their attacks are local in character, and are apt to come before the larger counterattacks materialize. Their charge is often preceded by a shower of grenades.

Japanese counterattacks generally have limited objectives.

Several instances have been reported where the Japanese withdrew part of their forces from bunkers and pillboxes only to attack the positions with mortars, grenade dischargers, and machine guns after assaulting hostile troops reached the positions. This fire, not strong enough to injure Japanese in the pillboxes and bunkers, was intended to disrupt the assault just before it succeeded, and to enable a quick counterattack.

6. AGAINST PARACHUTE TROOPS

Japanese instructions on how to defend an airfield against parachute troops are summarized below. These instructions are largely supplemental to Section I, *Intelligence Bulletin,* Volume II, No. 4, "Defense against Airborne Forces."

Immediately on striking the ground, the paratroopers will be jolted and momentarily will not be free to go into action. At this time rush forward and shoot or bayonet them. Do not concentrate entirely upon one man; search elsewhere for other members of the hostile forces.

Several waves of paratroopers may follow successively, so be alert and prepared with the proper security measures. Attack savagely.

Machine guns firing at parachutists will empty five bursts of fixed fire and then resight for the next burst.

Commandeer, burn, or destroy parachuted weapons, equipment, and ammunition.

Shoot down any hostile planes flying low. All machine guns will open with full automatic fire.

Construct four pillboxes to cover positions for the troops on the airfield, on the adjacent terrain, and for reserves and observers. Utilize four firing positions in conjunction with the tanks. Allow no dead areas [areas not covered by fire] when constructing positions.

Guard against shooting friendly troops. They must be easily recognizable.

7. AGAINST AIRCRAFT

The Japanese have used a wide variety of geometric patterns to date in laying out their antiaircraft batteries. These have included the arc, the triangle, the trapezoid (somewhat rectangular), and the straight line. Which of these patterns will be used in a given area depends largely on the nature of the terrain and the use which will be made of the guns. If the latter are to be employed for coastal defense as well as for antiaircraft purposes, they must be arranged in an arc, a straight line, or in a low triangle so that there will be no interference in firing between the individual guns.

Especially when subjected to heavy bombings, the Japanese shift their guns to alternate positions. Sometimes the alternate positions, hastily selected and improvised, afford little protection except for such camouflage as trees and nets.

The types and sizes of weapons utilized in antiaircraft roles range from the 6.5-mm light machine gun to the 120-mm dual-purpose Navy gun. In some areas, the major weapon has been the Model 88 75-mm Army antiaircraft gun.

One observer states that the 6.5-mm machine gun, when emplaced in the vicinity of larger gun batteries or airfields, should be considered as an antiaircraft weapon. The Japanese 7.7-mm heavy machine gun has a special antiaircraft mount.

Other weapons encountered, or expected to be encountered, on a large scale include the 13-mm antiaircraft gun and the 20-mm dual-purpose gun (already mentioned). Captured weapons are also used for antiaircraft purposes.

Most Japanese heavy antiaircraft batteries are now believed to consist of six guns, whereas in the past many of them included only three or four guns. It is also believed that the guns in most cases are now being arranged in an arc pattern, with the bow of the arc facing the direction from which hostile elements are expected to attack.

Light and medium antiaircraft guns have been found, and may be expected to be found, in a variety of patterns. They usually consist of four to eight guns per battery. The light or mediums, generally always located near the heavies, are designed primarily for use against low-flying or strafing planes (see fig. 14).

Section III. POSITIONS

1. GENERAL

Japanese defense structures in jungle warfare have not followed a set pattern to date, but have been made to conform as nearly as possible to the surrounding terrain and to meet the immediate tactical requirements. With some exceptions, these structures have been relatively flat, extending 3 to 5 feet above the ground level, or irregularly shaped positions built around the bases of trees.

A Japanese manual on field fortifications states that "it is most important not to adhere blindly to set forms in construction work, but to adapt such work to fit the tactical situation."

A Japanese commander in the South Pacific gave the following instructions regarding defense positions:

Even the smallest unit will prepare deeply entrenched and strong positions against the expected attack. Make your positions as resistant as possible to bombing and also to land-based artillery.

With regard to our artillery and heavy weapons, suitable positions must be selected so that we can obtain a wide arc of fire. Reserve positions must be established, and special attention should be paid to observation posts.

In the jungle, positions must be constructed so that fire covers every direction.

When forced to take up an active defense, the Japanese apparently follow the theory that construction of defensive positions involves a continual process of development. First, the positions merely constitute a series of foxholes; subsequently, if time and circumstances permit, they are linked together to form a coordinated defense system. The third stage involves construction of strong points, or the bunker and pillbox types of earthwork and log positions.

Japanese positions have included bunkers, pillboxes, dugouts, shelters, blockhouses, rifle and machine-gun emplacements, foxholes, trenches, and antiaircraft emplacements and revetments. The terms "bunker," "pillbox," and "dugout" have been used fairly loosely in various reports, and it is sometimes difficult to do more than roughly differentiate between them.

Usually the Japanese positions are extremely well sited for cross fire by automatic weapons and for all-around defense; the structures are well camouflaged and frequently are connected to each other by tunnels or trenches. Bunkers and pillboxes are frequently protected on each side by rifle emplacements connected to the structures by a shallow crawl trench. The structures also generally contain sufficient food and ammunition to last for a long time. In some areas bunkers and pillboxes were spaced about 5 yards apart in a fairly straight line, with a second line of positions covering the gaps and a third line behind the second.

As a general rule, the Japanese have utilized the best materials available locally in constructing their

bunkers, pillboxes, dugouts, and shelters. These were primarily coconut logs—or logs of other resilient and tough trees of the tropics—sand or dirt, hardened mud, and grass or other camouflage material. Occasionally oil or gasoline drums filled with sand were used as walls or supports for the structures.

Not all the bunkers or pillboxes have had fire slits, and few have had enough to accommodate the number of men the structures were capable of holding. At least in the early stages of Japanese defensive fighting in the South Pacific, most of these bunkers and pillboxes were used primarily as protective shelters against our artillery, mortar, and bombing attacks.

2. BUNKERS

Loosely speaking, bunkers may be said to differ from pillboxes by their size, shape, and shallow foundations. Usually they have been found on a large scale only in those areas where high-water levels preclude the digging of deep trenches, and in more or less open terrain (for example, in coconut groves and on the edges of airfields).

Figure 3 is an illustration of a typical bunker, which is oblong in shape. The finished interior of bunkers varies from 4 to 6 feet in height, 6 to 10 feet in width, and 12 to 30 feet in length. The larger bunkers are sometimes found with two bays, or compartments, which are separated by a large solid block of earth. Each bunker has one or more narrow firing slits (see fig. 3), which are difficult to hit except at close ranges.

The slits are covered by some form of camouflage when not in use.

In the Buna-Gona area, the bunkers and pillboxes (the latter have also been referred to as small bunkers) were built along the same general lines. With a shallow trench as a foundation, log columns and beams were erected, log revetment walls were constructed, and a ceiling was then made of several layers of logs, which were laid laterally to the trench. With the completion of this basic superstructure, the revetment walls were reinforced by such materials as sheets of iron, oil drums filled with sand, ammunition boxes filled with sand, and additional piles of logs. Lastly, the outside was covered with dirt, rocks, coconuts, and short pieces of logs. For camouflage, the surface was planted with fast-growing vegetation.

Figure 3.—Typical Japanese Bunker.

Different types of entrances were used. Some had direct openings from fire trenches, while others had tunnels from the rear. With very few exceptions, all openings were constructed in such a way that the explosion of a grenade inside the opening would not injure personnel inside the bunker (see fig. 9).

A few bunkers were used to shelter accompanying weapons such as antitank guns. These bunkers usually had large direct openings.

3. PILLBOXES

Usually Japanese pillboxes are constructed over, or near, dugouts, to which the enemy can flee for protection while being shelled or bombed. Some have been described as having front and rear compartments—the front part for firing and the rear for protection, storage of supplies, and rest or sleep. Some of the dugouts are 10 feet deep or more.

Figure 4 is a front view of a typical pillbox. Note the narrow firing slit, cut at an angle to permit a wide field of fire, and the iron fasteners. Figure 5 shows how the inside of a large pillbox or shelter is usually constructed.

a. Buna Area

In the Buna area some of the pillboxes were made as follows:

Sand-filled oil or gasoline drums were placed at intervals in front of the trenches—enough interval was left to permit firing by automatic weapons and rifles. Then heavy palm logs were piled 3 to 5 feet in front

of the drums, in a way so that they did not block the loopholes for firing. The structure was then covered

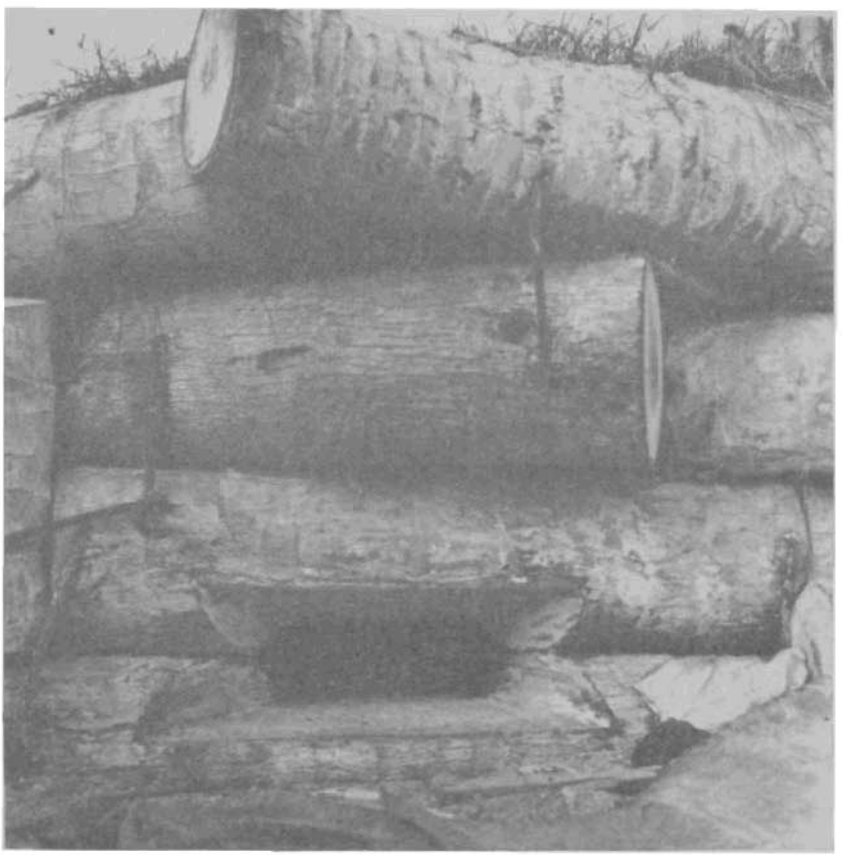


Figure 4.—Front View of Typical Japanese Pillbox (Betio).

with sod and otherwise camouflaged by shrubs and saplings, which were implanted in a realistic manner.

Figure 6 shows a typical pillbox which served as a machine-gun position in the Buna area.

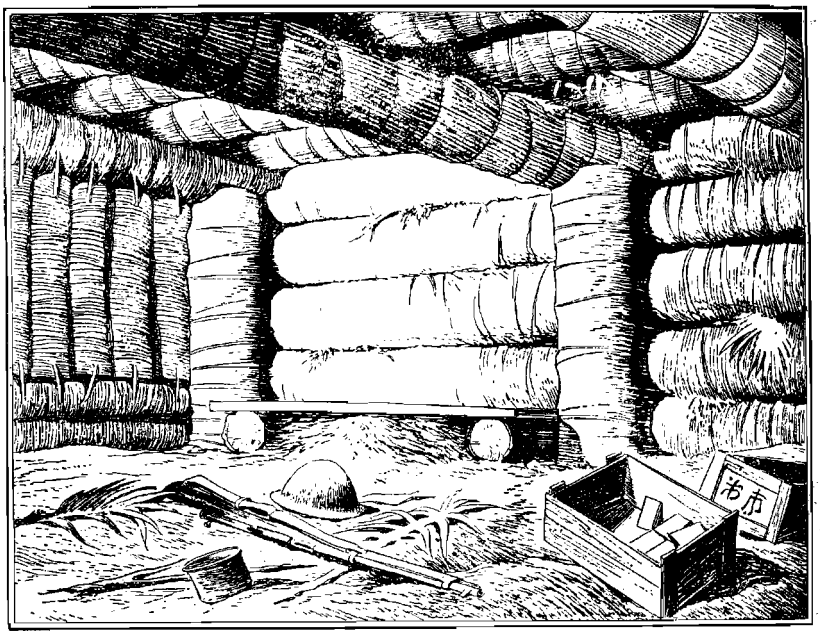


Figure 5.—Inside View of Japanese Pillbox or Shelter.

b. New Georgia

Many of the pillboxes on New Georgia consisted of two decks, which permitted personnel to drop through a connecting door during heavy shelling. All were described as mutually supporting and very well concealed. The pillboxes usually housed heavy weapons, while communication trenches leading out on the flanks generally concealed light machine guns.

Coral rock, tougher than ordinary rock because it is more resilient and much harder to shatter, formed part of the protective covering on many of the New Georgia pillboxes (see fig. 7). They were used in conjunction

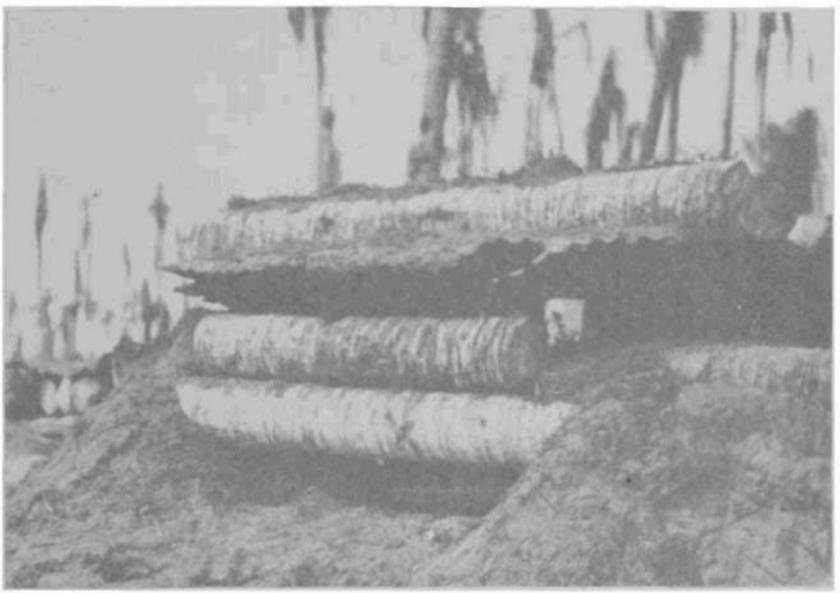


Figure 6.—Japanese Pillbox (New Guinea).

Figure 7.—Japanese Pillbox (New Georgia).

with coconut logs, earth, and miscellaneous materials at hand. A large number of the pillbox tops had as many as four layers of coconut logs. These were topped with dirt and coral rock. Ferns and growing shrubs were planted in the chinks to round out a well-camouflaged appearance.

c. Betio

Pillboxes—along with blockhouses, open and covered trenches, individual rifle emplacements, and open revetments—formed the main defensive system on Betio. They were situated within 100 feet of the high tide mark.

The pillboxes were constructed mainly of reinforced concrete (several of these were 16 inches thick), coconut palm logs, and sand. Hexagonal (six-sided) steel pillboxes, roughly in pyramid shape, were found on all the beaches (see fig. 8). Apparently they had recently been installed, and were designed to be reinforced with concrete (concrete had already been placed around two of them). They had not been camouflaged, and were badly damaged since most of them had not been reinforced by sandbags or coconut logs.

These pillboxes, apparently prefabricated, are designed to serve as command and observation posts. They have double walls, between which sand and other material is placed for added protection. Apparently most of the beach-defense guns on Betio were emplaced in dugouts with overhead protection. Many of the dugouts were made of reinforced concrete.

Figure 8.—Japanese Steel Pillbox (Betio).

Ammunition and supply dumps were scattered about the island in bomb-proof dugouts.

d. Burma

In general, the Japanese pillboxes in the jungle country of Burma were found to be similar to those in the South Pacific. One report described pillboxes near beaches as consisting of a roughly circular mound of earth about 25 feet in diameter and 5 feet high, with a rear entrance which connected to a crawl trench. In front was a firing slit at, or slightly above, ground

level. The slit was about 6 feet long and less than 1 foot wide.

4. DUGOUTS AND SHELTERS

a. According to Observers

Generally speaking, dugouts may be classified as the "hasty" type and the larger, stronger, and more permanent type. The "hasty" type is little more than a shallow excavation (foxhole) covered with a protective

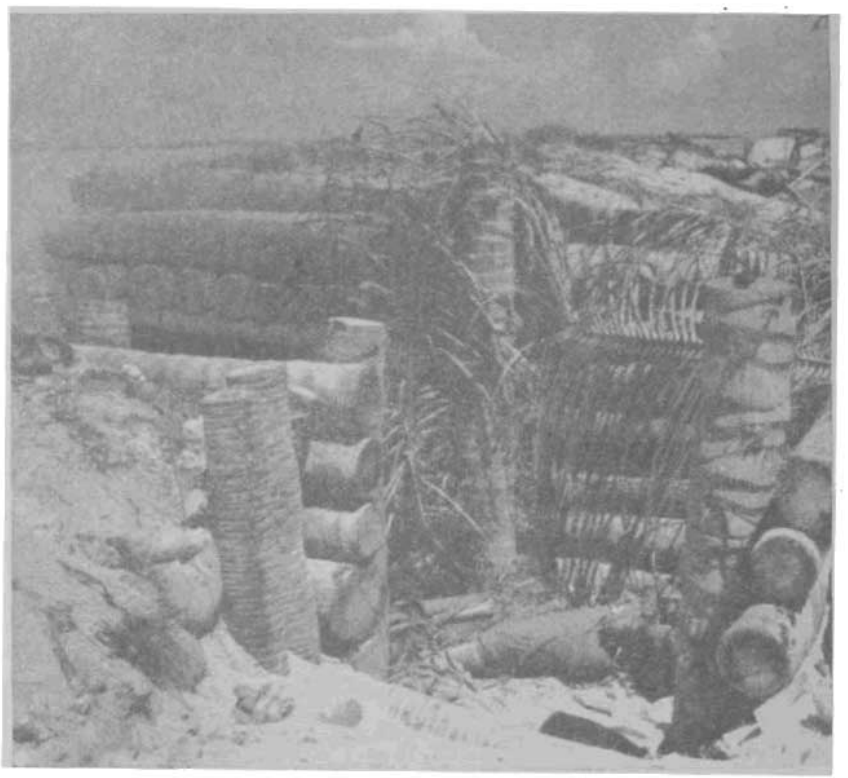


Figure 9.—Typical Japanese Beach Dugout.

Figure 10.—Japanese Dugout (with direct entrance).

layer of logs, dirt, and perhaps other material close at hand. They almost always are well camouflaged. some of the "hasty" types accommodate three to four men.

Figure 9 is fairly typical of the larger type of dugout. Note the indirect entrance, designed as a protection against grenades. They hold from 6 to 15 men. Their covering is similar to that of bunkers and pillboxes.

Figure 10 illustrates a second type of dugout, which apparently served as a first-aid station on Betio.

Except for extensive excavations, the Japanese shelters are constructed much like the dugouts (see figs. 11 and 12.)

Intelligence reports from Makin Island described Japanese shelters as being about 20 feet long and having varying widths. The tops were made of two to three layers of coconut logs, 10 to 15 inches in diameter, plus a covering of 8 to 10 feet of dirt. The shelters had only one entrance, which was very narrow.

b. According to Enemy Sources

Extracts from a Japanese manual dealing with the construction of shelters and dugouts is presented

Figure 11.—Japanese shelter (Betio).

Figure 12.—Japanese Shelter (Betio).

below. A study of these extracts will show that in general the enemy has followed the "book."

(1) *Essential Rules.*—Shelters and dugouts are built to protect troops, weapons, and matériel. The profiles of shelters and dugouts differ according to their purposes, but, depending on the time available and the materials at hand, make the degree of strength complete from the start, or strengthen progressively.

Materials needed for construction are generally difficult to obtain; make practical application of local materials.

In building a shelter, besides constructing it to forestall sniping against its loopholes, dig a small ditch in front of the loopholes so that firing will not be obstructed by dirt heaps forming because of enemy attacks. Also provide canvas, blankets, and so forth to deaden noise.

(2) *General Construction.*—Place the lumber for covering on top of the beams and connect them together at various places with wires; makes the joints solid. Furthermore, close up the gaps at points of union and prevent entrance of earth and sand.

Putting a protective layer on a covered shelter will increase its effectiveness. For protective layers, place small stones, timbers, iron, and so forth close together and cover this with a thin layer of earth. Again, in cases of protective covers of two or more layers, generally place a certain amount of earth layer between them.

In order to withstand the concussion of shells bursting in the vicinity, side walls should be covered as much as possible, and, particularly where covering layers are not perfect, the resistance power should be increased by setting timbers in the side walls which face toward the enemy. Also, in building protective layers, extend them on the side which is receiving hostile shelling, and remember to make the protection of the side wall adequate.

Conceal the entrance section thoroughly and make it as strong as possible. Close off the entrances of weaker structures with boards at least 2 inches thick; also, pile sandbags on the outside so as to minimize the blast of shells and bombs. Provide stronger structures with at least two entrances. The distance between the two must be about 6 yards or more so that they cannot be destroyed simultaneously by the same shell or bomb.

In order to strengthen the entrances to shaft-type shelters, make the earth layer over the entrance as heavy as possible on horizontal shafts (level shafts, sloping shafts) and put on a protective layer. Put a covering on vertical shafts.

Make the construction of the interior strong and join timbers firmly with nails, iron clamps, bolts, slots, and so forth.

In constructing light shelters and dugouts, generally build them by excavating the position at the same time that we excavate the communication trench.

The principles of construction differ according to type of structure and degree of strength, but in the light shelter type, after

excavating the trench on the basis of the outline and setting out the upright posts, cover the side walls and then lay the sleepers, having them at least 1 foot from both side walls and at the same height as the upright posts. Bind together the supporting timbers to the top timbers and the covering timbers to each other using wire, and so forth. Then, after laying the covering timbers on the sleepers, pile on earth. For loopholes and peepholes, take advantage of previously prepared retaining boxes, or install them by using the necessary materials.

Where materials for constructing coverings are lacking and the terrain is advantageous, build cave-type shelters or shaft-type dugouts.

To keep down dust in front of the muzzle in heavy gun shelters during firing, spread out wet cloths, mats or grasses, and so forth.

Keep facilities for artillery plotting in shelters so that effective firing can be carried out against an enemy advancing under cover of darkness, mist, or smoke.

In shelters for firearms, especially machine guns, keep in mind the accumulation of carbon monoxide with continuous firing, and get a natural draft by opening the shelter deflectors. For disinfecting gas which has penetrated, prepare chloride of lime, chloride of lime emulsion, neutralizing agents, and if possible, atomizer sprays.

To change the air in dugouts deep below ground, or to renew air, or to purify the air with the dugout closed up, install air vent holes or make an artificial change of air by use of fans. Also hang up a few strips of cloth covered with lime emulsion, and temporarily prevent the accumulation of carbon dioxide gas.

With regard to ammunition, avoid moisture; disperse all small-arms ammunition, usually one box at a time; infantry-gun ammunition, four to six boxes at a time. The distance between ammunition positions differs according to the type and quantity of ammunition stored, but at least 5 yards is required.

5. BLOCKHOUSES

Blockhouse-type fortifications have been found in several areas of the South and Central Pacific.

In New Guinea, the Japanese frequently converted local grass huts into such positions. The huts, which are constructed on stilts so that the floors are raised a few feet from the ground, were not changed; that is, from external appearance. The Japs placed logs and dirt on the floors to provide overhead cover. Then they dug a trench around the huts, just inside the supporting stilts, and built walls with logs and sod to within about 9 inches of the floors. In this manner, they provided a lateral firing slit for all-around fire.

This type of fortification was particularly adaptable to defense of inhabited areas.

6. WEAPON EMPLACEMENTS, FOXHOLES, AND TRENCHES

As a general rule, whenever the Japanese are pinned to the ground—even for short periods—they begin to dig. They have used weapon emplacements—usually of one-man capacity—foxholes, slit trenches, and various other types of trenches, many of them for communication and for protecting pillboxes, dugouts, or gun emplacements. Often small individual dugouts have been constructed into the sides of communication trenches.

For outpost positions in the Burma theater, the Japanese have shown preference for one-man weapon emplacements, spaced about 20 feet from each other, although in many cases two-man emplacements have

been found. Both types usually are linked by communication trenches.

Fences, generally made of wire, have frequently been erected in front of the outpost positions. Alarm wires, with tin cans attached at 5-foot intervals, have often been found strung about ankle high a short distance in front of the fences.

The one-man emplacements have averaged about 3 feet in depth. Most of them were round, and about 3 feet in diameter. Loose dirt was thrown all around.

The two-man emplacements, also about 3 feet deep, were oval-shaped. On hilly terrain, the loose dirt was thrown to the front to built a level parapet.

Communication trenches were about 2 feet deep and 1½ feet wide.

Machine-gun emplacements were arc-shaped. Loose dirt was thrown forward to build up a 6-inch parapet. Gun platforms were constructed on a level with the ground.

In the hills of the Burma jungle, rifle and machine-gun emplacements frequently were constructed on the sides of hills, with dugouts to the rear (see fig. 13). Compare this type with the typical machine-gun emplacement on Attu—*Intelligence Bulletin,* Volume I, No. 11, page 66.

Reports from the South Pacific indicate that Japanese bivouacs usually are protected by all-around defenses, which include weapon slits or foxholes of a standard type with overhead cover and connected by shallow communication trenches.

568576°—44——7

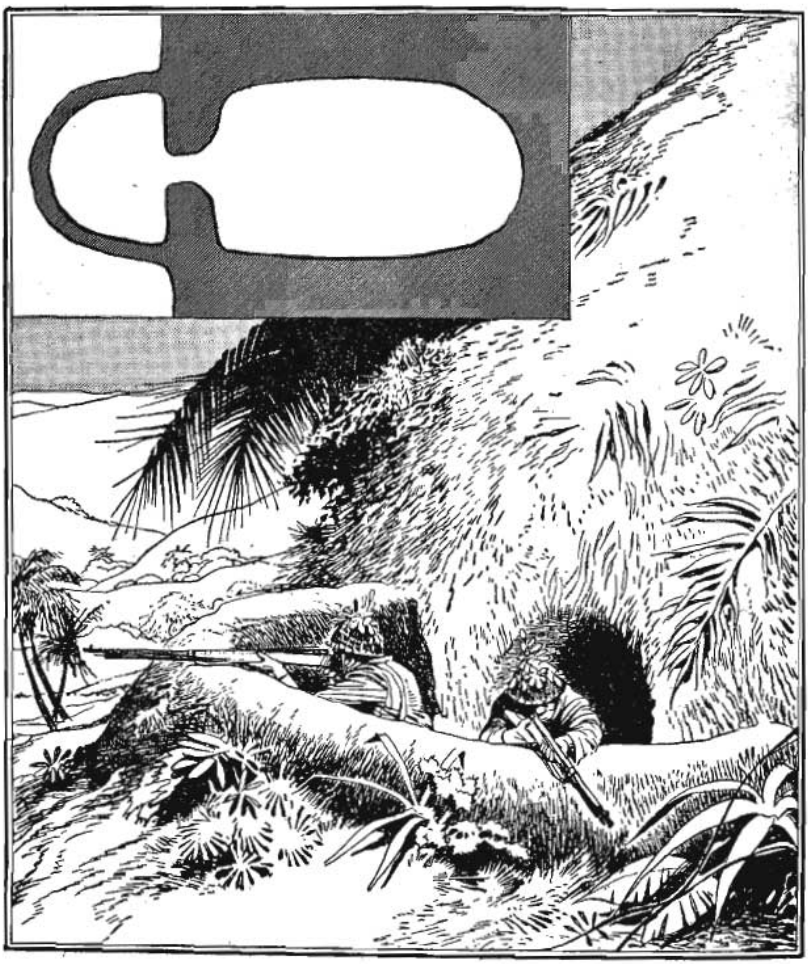


Figure 13.—Japanese Rifle or Machine-gun Emplacement (Burma).

7. ANTIAIRCRAFT POSITIONS

a. General

Military observers agree that Japanese antiaircraft positions in the South Pacific are usually excellent. A typical comment is that of a U. S. pilot who says, "The Jap installations have been very well planned. Most of the places I have encountered have been well equipped with heavy and light antiaircraft guns."

Figure 14 shows a typical Japanese antiaircraft position, minus some of the usual camouflage. Note

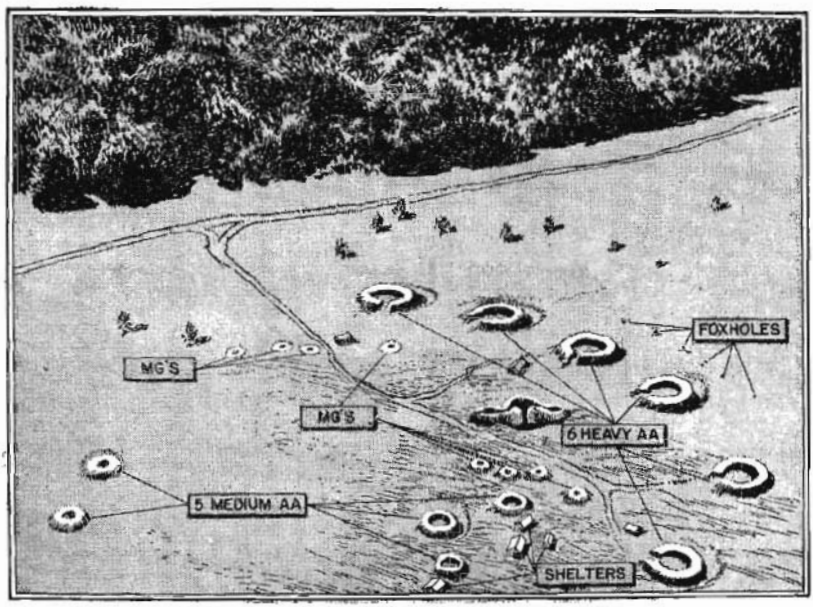


Figure 14.—Typical Japanese AA Position.

the inclusion of medium guns and machine guns in the same general setup with the six heavies. The command post is situated inside the arc formed by the emplacements for the heavies.

b. In the Solomon Islands

Japanese medium and heavy antiaircraft battery positions in the Solomon Islands usually followed one of three patterns: an arc, a triangle, or a rough rectangle.

The arc pattern included three to ten emplacements. The radius of the arc usually varied directly with the number of guns in the pattern. These batteries were often reinforced with a few scattered light antiaircraft positions. The command post of the arc battery was located back of the battery, approximately equidistant from the ends. Gun-crew quarters and ammunition dumps could usually be observed at the edge of the clearings in which the batteries were installed.

The triangular pattern consisted of three guns. The command post was usually located in the center of the position, which in all other respects was similar to the arc pattern.

The rectangular pattern consisted of a four-gun battery. The command post was in the center of the position. Crew quarters, ammunition dumps, and so on were removed from the position, as in the case of the arc pattern.

The revetments that the Japanese build usually are circular and have no entrances. Some with a protected entrance, have been observed and a few with an unprotected gap. These revetments vary in diameter (inside) from 12 to 33 feet. Most of them appear to be slightly countersunk.

At Vila a new type of revetment was observed. This consisted of a ramp leading down into the opening of a covered shelter, which in turn opened into a circular gun revetment. Another revetment was built around the first (see fig. 15).

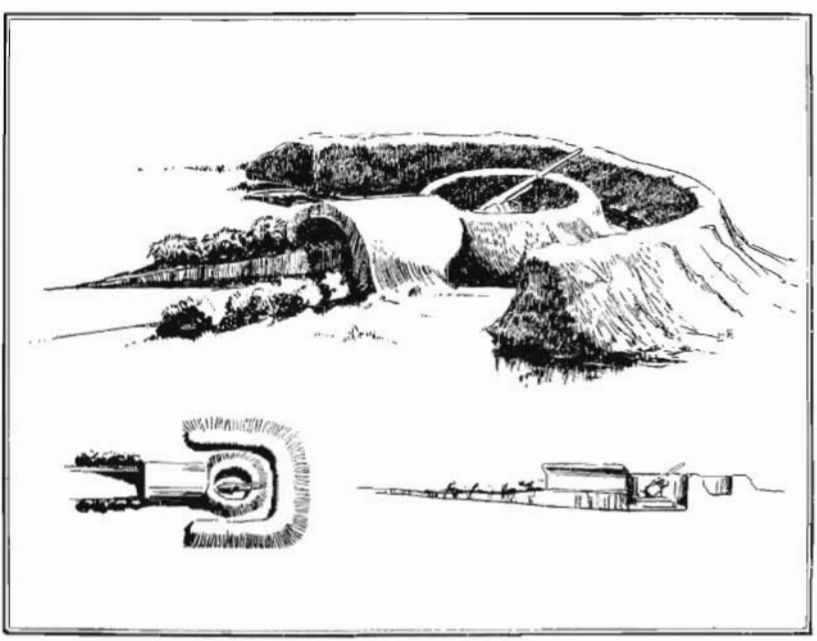


Figure 15.—Japanese Revetment (outer circle not completed).

From a photo-interpretation standpoint, all Japanese heavy automatic antiaircraft positions follow the same general pattern. They vary in diameter from 10 to 12 feet, and in depth from 5 to 6 feet. The sides are usually reinforced with coconut logs, or, if the position has been dug out of coral rock, are banked with earth, sandbags, and coral spoil—all well camouflaged. At Kindu slabs of sod were carefully laid to conceal the dirt embankments.

All Japanese gun positions have this much in common: one or two dugouts built into the sides of the revetments. Usually one is for ammunition, and the other for personnel or supplies. Crew quarters are generally situated underground, near the guns. East of Lambeti there was a circular position in which revetments were connected with a maze of dugouts and underground rooms. Small shaft-like openings, about 3 feet in diameter, provided alternate entrances. In several instances, small ladders were found in these shafts.

At Gurasi several positions were of a novel design: The gun was mounted in a relatively shallow coral revetment, which connected directly with a rectangular structure resembling a pillbox.

Section IV. OBSTACLES

1. INTRODUCTION

The information presented in this section is confined largely to paraphrases taken from translations of various Japanese manuals and treatises. It is intended to serve only as a guide to the nature of obstacles that the enemy may use against our troops in future operations.

The Japanese consider obstacles as means "to obstruct the enemy's advance, and, combined with fire power, to destroy or hinder his movements, or to prevent surprise attacks." Obstacles described, or referred to, by the Japanese include wire entanglements, movable barriers, land mines, abatis, snares, antitank trenches, pits, and obstructions designed to separate infantry troops from tanks.

2. WIRE ENTANGLEMENTS

a. Net Type

Figure 16 is an example of the Japanese net-type wire entanglement. Note that both barbed and smooth wires are used. Except for the lower horizontal line, the Japanese stipulate that the wires not be tight. The enemy also "increases the efficiency"

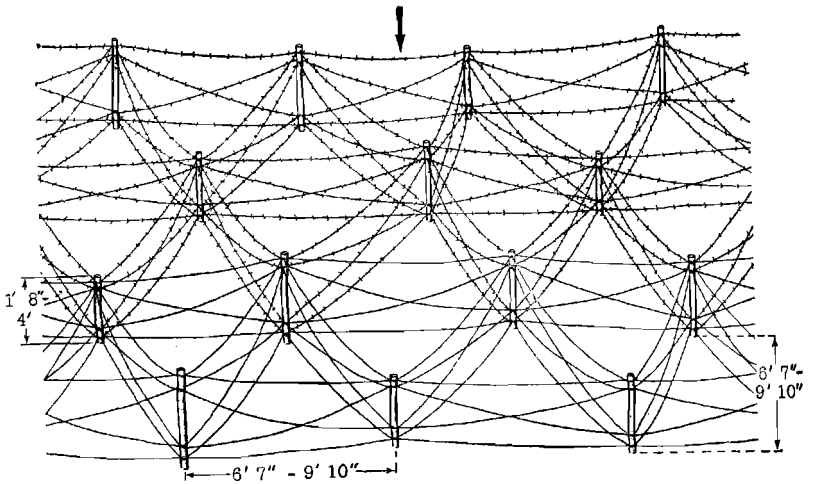


Figure 16.—Japanese Net-type Wire Entanglement.

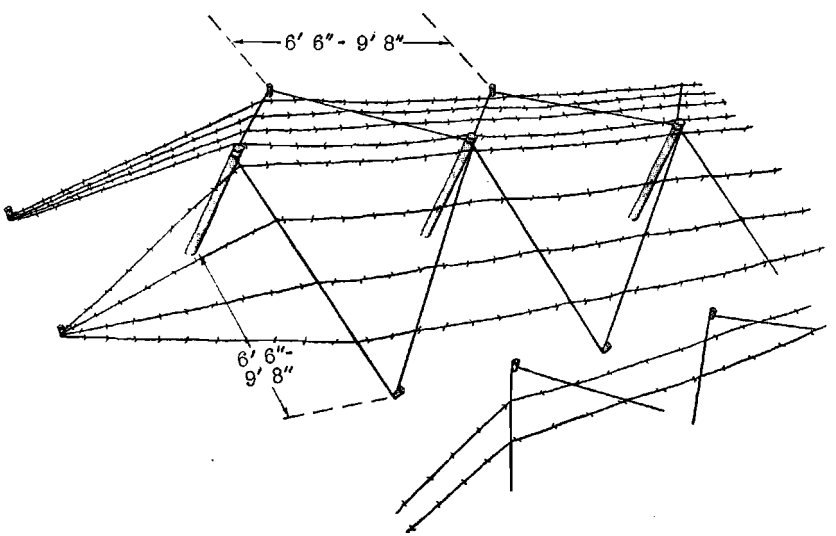


Figure 17.—Japanese Double-apron Type Wire Entanglement.

of the obstacle by stretching thin wires between the main wires to thicken the net.

b. Double-apron Type

This type (found on Betio) is illustrated in figure 17. Sometimes spaces are left between lines of the double-apron type so that movable obstacles may be utilized. Here, again, both barbed and smooth wire are used.

The use of screw pickets instead of wood posts not only increases obstacle efficiency but permits faster construction with less noise.

[In lieu of barbed wire, the Japanese on New Georgia used a prickly native vine to form obstacles around some defensive positions. The vines, interwoven to provide an effective barrier, had to be cut before U. S. troops could advance.]

c. Passageways

Two examples of passageways for Japanese wire entanglements are shown in figure 18.

3. MOVABLE BARRIERS

The Japanese admit that movable obstacles are not very effective, but say that they are easy to transport, to set up, and to conceal. "Therefore," according to an enemy manual, "they are used when an obstacle is needed to surprise opposing forces, when concealment of positions is necessary, when closing up a passage in an obstacle, or where it is difficult to drive posts in rocky or frozen ground."

The Japanese vary the length and height of their movable obstacles, according to the tactical requirements and the convenience of transportation.

"In order to increase the effectiveness of movable obstacles," the enemy source states, "they are often placed on each other, or are set up so that they connect

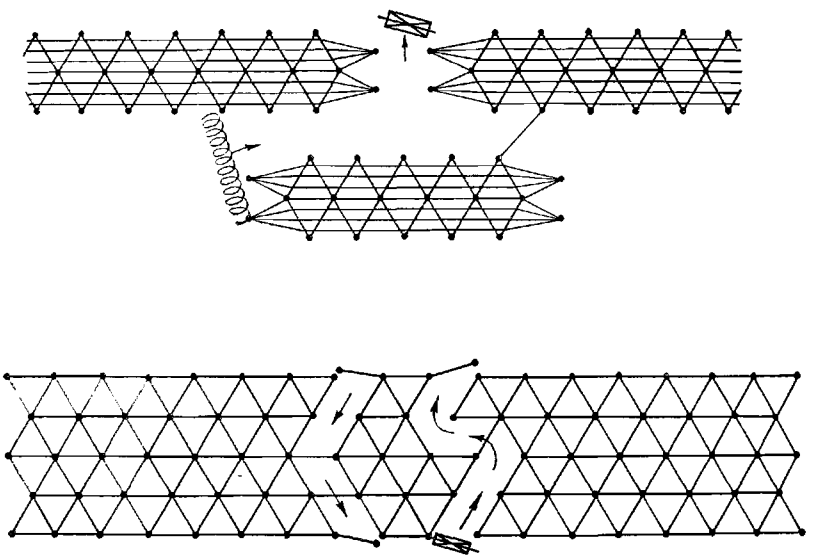


Figure 18.—Two Types of Passageways in Japanese Wire Entanglement.

on either side. In these cases they are connected firmly to each other by stakes, wires, and so forth."

a. Barbed Type

An example of the barbed type of Japanese movable obstacle is shown in figure 19. Barbed wire and two sizes of smooth wire are used in its construction.

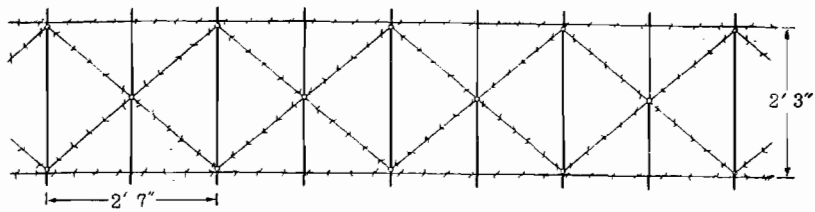


Figure 19.—Japanese Movable Wire Barrier.

b. Cheval-de-frise [1]

This type of obstacle, illustrated in figure 20, usually is about 10 feet long and 4 feet high. To facilitate transportation, the Japanese usually construct them so that they can be folded.

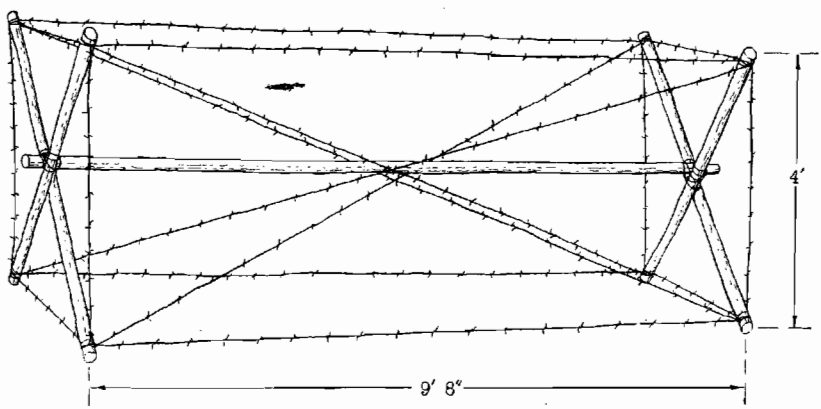


Figure 20.—Japanese Cheval-de-frise.

c. Ribard [2]

Construction of this cylindrical obstacle is illustrated in figure 21. The diameter of the cylinder is generally

[1] A portable obstacle in the form of a saw horse, having two or more sets of legs or cross pieces; it stands of itself, and is sometimes covered with a network of barbed wire.

[2] A portable wire entanglement in the form of a cylinder, consisting of circular frames of heavy wire with barbed wire strung upon them. It can be collapsed for carrying and extended for placing.

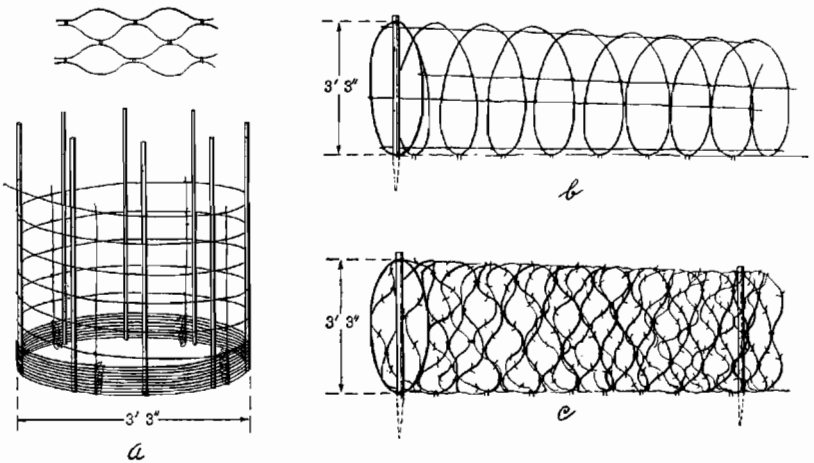


Figure 21.—Japanese Ribard (*a*, principle of construction; *b*, principle of setting up; *c*, principle of folding up).

from 3 to 4 feet. According to Japanese instructions, this obstacle is folded by compressing the ends and tying in several places. It is opened by untying and stretching.

4. OTHER TYPES OF BARRIERS

a. Abatis (see fig. 22) [3]

The Japanese recognize that abatis are easy to destroy, but they frequently use them in areas where trees are plentiful. An enemy manual stipulates the use of trunks and branches of heavily branched, broad-leafed trees or bamboo. "Cut away the narrow branches, sharpen the slightly large ones, and point the tips toward the opposing forces," the manual

[3] An obstacle consisting of trees felled or placed with their tops to the front. A live abatis is one consisting of saplings bent to the ground but not cut, so that the leaves do not wither.

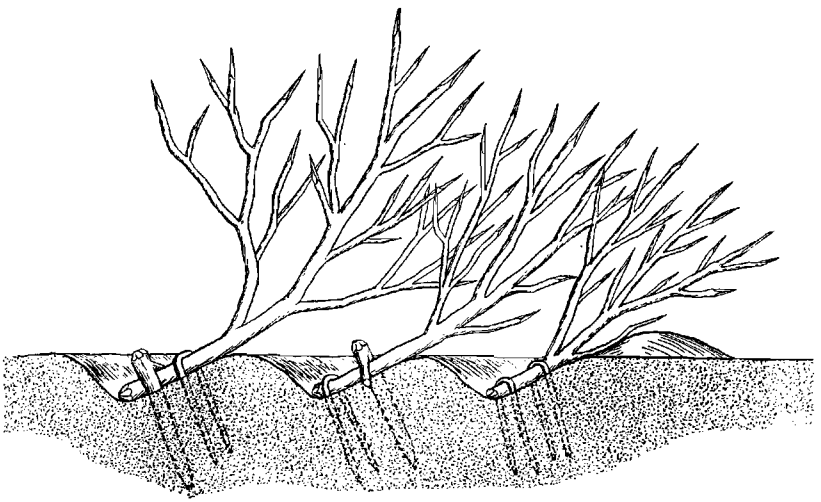


Figure 22.—Japanese Abatis.

states; "arrange them so that a back line of branches covers the branches just in front. The effectiveness of the obstacle can be increased by tying the branches with wire at points where they touch each other."

The Japanese sometimes construct abatis by felling trees at a height of 2 to 3 feet from the ground; the trees, not completely cut loose from their stumps, are felled in the direction of opposing forces, and their limbs are prepared much in the same manner as described above.

b. Cylindrical Wire Net

This obstacle usually is constructed with five rings and six strands of barbed wire, stretched to connect the rings. Other wiring is used to strengthen the obstacle.

c. Folding Screen

The frames are made separately and then connected (see fig. 23).

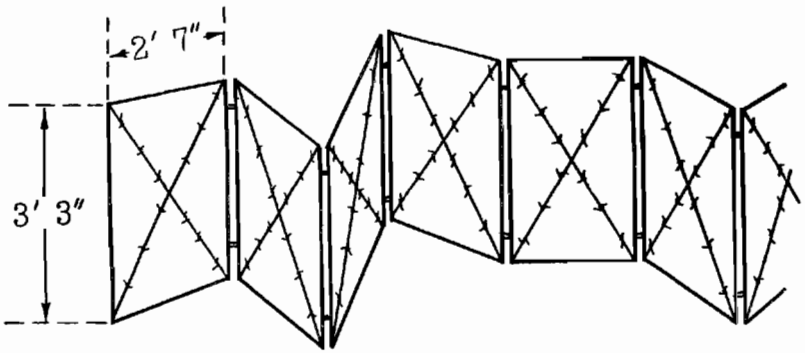


Figure 23.—Japanese Folding-screen Barrier.

d. Wire Snares

(1) *Ring Shape.*—This type of snare (see fig. 24a) is usually about 1 to 2 feet in diameter.

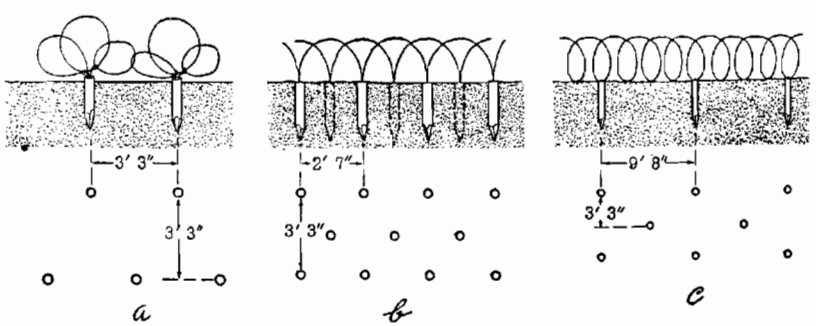


Figure 24.—Japanese Wire Snares (*a*, ring-shape; *b*, half-moon shape; *c*, tangled-wire type).

(2) *Half-moon Shape.*—This type of snare extends a little over a foot from the ground (see fig. 24b). It

consists of overlapping barbed-wire strands which are fastened to stakes in the ground.

(3) *Tangled-wire Type.*—The Japanese construct this type of obstacle either with barbed or smooth wire (see fig. 24c). The wire, secured at intervals to stakes, is looped or tangled in an irregular manner to a height of about 10 inches above the ground.

The Japanese also mention such simple procedures as stretching ropes, cords, vines, and wire between posts of trees.

5. ANTITANK OBSTACLES

According to the Japanese sources, the construction of antitank obstacles must vary according to the type of opposing tanks, the terrain, and other conditions.

a. Ditches and Steps

The construction of Japanese antitank ditches usually depends upon the type of hostile tank anticipated. To halt medium tanks, ditches are constructed with a top width of 10 feet or more and a depth of 6 feet or more. The sides are made "as steep as possible." To slow down medium tanks, the ditches are constructed at about half the dimensions given above.

Antitank steps, according to a Japanese manual, can be "simply constructed on sloping terrain, and their effectiveness is comparatively great—especially so when we take advantage of steep slopes.

b. Land Mines

"Antitank land mines," a Japanese manual states, "are simple to handle and can be quickly set in desired positions; however, since they may be destroyed prematurely by gunfire or bombs, or may be cleared away, it is most important to conceal their location from the hostile forces.

"The interval between mines in a minefield varies according to the tactical situation, the type of mines, terrain, and so forth. However, they usually are laid in a fish-scale pattern at intervals of about three paces. They are buried at a depth sufficient to camouflage them."

c. To Separate Infantry from Tanks

A Japanese manual states that "obstacles for separating infantry from tanks are easy to construct and to conceal. Such obstacles—even when antitank obstacles cannot be built—may be able to frustrate tanks by separating accompanying infantry from them.

"These obstacles (principally snares and the spiral type of wire entanglements) should be set up so that our fire power can be coordinated with their use."

A tank passing over the spiral type of entanglement depresses the spiral support, which is coiled as a spring. Because of the action of the spring, the spiral support returns to its former position after a tank has crossed over.

d. Other Types

Under this heading, a Japanese manual describes the following:

"(1) *Pits.*—These are dug in localized areas.

"(2) *Felling Large Trees.*—There are times when we can slow down tank movements by the irregular felling of large trees at heights of 3 to 4 feet from the ground. They should not be severed entirely.

"(3) *Wooden Posts.*—Wooden posts sunk into the ground in an irregular pattern can sometimes retard tanks. The posts should be about 1 foot in diameter and about 9 feet high; they should rise about 3 feet above the ground."

PART TWO: GERMANY[1]

Section I. VON ARNIM DISCUSSES JUNIOR LEADERSHIP

I. INTRODUCTION

It is both foolish and dangerous for anyone to go to extremes in appraising the junior officers of the German Army. To say that German junior leadership is "weak" would be untrue. But to say that it has demonstrated "instances of weakness" in the past is an entirely valid statement. The German Army attempts to correct such faults as soon as they become apparent. In Tunisia, for example, General von Arnim issued to his commanders a constructive order, which discloses a number of errors that they had been making. He prefaced the order with this comment: "In recent operations, apart from the outstanding conduct of certain officers and men, many self-evident principles of tactics and command seem to have been discarded."

In considering the following extracts from the order, the reader will have no trouble in detecting the faults that General von Arnim was determined to overcome.

[1] The caption for figure 9 on p. 56 of *Intelligence Bulletin*, Vol. II, No. 1, should read "Pz. Kw. 3 with 50-mm gun (Kw. K. 39)."

It is reasonable to suppose that the enemy may again display, in other combat areas, various tendencies indicated here. In any event, it is an advantage to know the opinion of a high-ranking German officer regarding the deficiencies apparent within his command.

2. "EXPLAIN THE PLAN"

a. Before an action every unit commander [in the Fifth Panzer Army] must try to give his men the broad picture so far as it affects the missions of the company and the battalion.

b. Unless the soldier has been informed about the plan, he will fight without enthusiasm or understanding, and will become confused in crises.

c. Unless a patrol knows the broad picture, it will be unable to make the most of what it observes within the enemy lines.

d. Unless signalmen and runners know the broad picture, they cannot maintain their contacts properly.

e. During battle every commander must try to keep his subordinate commanders informed regarding the progress of the fighting. If it is impossible for him to give the broad picture, he must at least inform them regarding the progress of his own unit. In turn, subordinate commanders will pass this information along to their men.

3. TACTICS

a. When a decision must be achieved, it is impossible to be too strong. That is, at the point where a decision is to be brought about, one's forces must be concentrated—but not bunched.

b. Flank protection by small detachments a considerable distance away is worthless; the opposition can destroy these detachments one at a time. Instead, flank protection should be

afforded by close flanking columns—echeloned toward the rear, if necessary. A battalion and a half may well attack on a 2,000-yard front, but never on a 7,000-yard front. Attacks in divergent directions are employed only for feints.

c. A concentration must never be permitted within a sector dominated by the opposition. Concentrations must not only be covered, but protected from the air.

d. Unless reconnaissance has been extensive and thorough, there is always a chance that one will unexpectedly run into hostile fire. Reconnaissance should be conducted by sectors, and from ridge to ridge (including reconnaissance for future observation posts), in exactly the same way in which the attack is divided into bounds so that support weapons can be brought forward in time.

e. Before every action an assault detachment precedes the rest of the company, which is deployed in depth. Support weapons should be well forward, to give prompt assistance. The forward observers for support weapons and artillery must be very far forward; an infantry detachment must be assigned to protect them against surprise attacks.

(f) As soon as a position has been taken, it must immediately be consolidated against counterattacks (including air attack) by means of:

(1) Reconnaissance of the position to which the hostile force has withdrawn and reconnaissance of the nearest hostile force on our own [German] axis of advance.

(2) Readiness of machine guns, with sentries performing half-hour tours, especially on the flanks.

(3) Dispersion of the troops taking part in the consolidation (so as not to provide the opposition with targets for artillery or air attack); rapid replacement of ammunition, and short breaks for messing, maintaining equipment, and so on.

g. It is a matter of honor for one arm to help another—for example, infantry covering disabled tanks and giving protection while brief recovery jobs are being undertaken. At night,

tanks are blind, and must have infantry protection against tank-hunting detachments (often the crew alone will not be adequate for this). Artillery pieces and mortars in exposed positions must also be protected by infantry.

h. Ground cooperation with dive bombers has always worked well in cases where tracer fire or guiding smoke has been used lavishly.

4. ORDERS AND REPORTS

a. Too little use has been made of brief warning orders, which prepare our troops, make reconnaissance of approach routes possible, and sometimes speed up the departure by hours. It must be remembered that preparations for the attack and the defense, especially when the fighting is to take place in mountainous terrain, call for different equipment.

b. Written orders will be given only above regimental level. On and below this level, verbal orders will be given—and in the prescribed sequence so that salient points can be written down.

c. It is impossible to be of assistance to subordinate commanders unless adequate reports from the front line have been received. Reports received in the past have hardly ever mentioned the exact time when events occurred or when things were seen. Often a place has not been identified, except by a system of private map references unknown to others. Intelligence about the opposition is almost always omitted—exact details about the hostile force, its positions, and its movements. In instances in which a United Nations force has attempted an outflanking move, reports have failed to mention which of our flanks was involved and in which direction the hostile force was moving. How can the higher commander help his subordinates under such circumstances?

5. INTERCOMMUNICATION

a. The nearer the front, the shorter the communication routes must be.

b. A battalion headquarters must be close enough to the rear of its companies to permit a runner from a company commander to reach it in not more than 10 minutes. A regimental headquarters must be no more than 2,000 yards to the rear of its battalion headquarters—if possible, on a level with them and in a position from which it can observe the battlefield.

c. It is best for a battalion headquarters and the regimental headquarters to move forward along a main field telephone line, which has a direct wire to the company command post at the decisive point. In any event, the company commander will be at the decisive point for intercommunication within the battalion and the regiment. The units flanking him to the right and left will be maintaining contact with him, anyway, as a matter of course.

d. Every effort must be made to rush important reports to the rear. This Army cannot be of assistance if a crisis is not reported until 24 hours after it has occurred!

e. In forwarding reports about purely local matters (weather, casualties, exhaustion of personnel, hostile artillery fire, and so on), all commanders must refrain from wording them too pessimistically or so coloring them as to influence the higher command in a certain direction. A course which appears favorable for one sector may prove disastrous for the situation as a whole.

Section II. CAMOUFLAGE IN SICILY

1. GENERAL

An analysis of the camouflage measures employed by the enemy during the Sicilian campaign indicates that the Germans are still improving their methods, and that they can readily adapt basic principles to new terrain conditions. In Sicily they made good use of all available cover. The fieldcraft and camouflage undertaken by the individual German soldier were particularly good. Track discipline was weak, however—perhaps because vehicles so frequently were required to move at night.

2. PILLBOXES

The Germans paid special attention to the camouflage of pillboxes designed to repel landing forces. Every effort had been made to blend these pillboxes, most of which were of concrete, with the general terrain patterns. The fact that there were so many small houses, huts, and stone walls on the island made this work simpler for the Germans. It was a relatively easy task to construct pillboxes resembling existing structures.

In the Pachino area there were several instances of pillboxes covered with thatch to look like huts. A

pillbox overlooking a road junction between Pachino and Rosolini was actually a small house which had been reinforced with concrete and which had weapon slits just above the level of the ground. In the Palazzolo area a number of pillboxes had been constructed in the vicinity of limestone outcroppings; as a result, the pillboxes blended fairly well with their surroundings. These pillboxes were roofed with straw and had straw "blinds" over the weapon slits. Near Rosolini the Germans had constructed a pillbox beside a wall, and had painted on the pillbox a continuation of the stone pattern of the wall.

However, the locations of many pillboxes were revealed by the careless laying of wire obstacles. Instead of being blended with the ground pattern, wire often was stretched haphazardly across fields, thereby permitting air photographers to identify positions which otherwise had been well camouflaged.

A number of enemy pillboxes were never used.

3. GUN POSITIONS

Of the enemy gun positions selected for study, half were covered with grass-garnished nets of Italian make. The other half lacked overhead concealment, but the guns themselves were covered with branches and other natural garnish. In general, track discipline around gun positions was poor. Occasionally, however, the Germans constructed gun positions which were excellent in every respect. A single gun position

near Palazzolo was unusually well planned. Here the pit was dug out of an embankment at the side of a road, and a low overhead cover of nets garnished with boughs and grass gave the location an entirely natural appearance. Near Grammichele an antitank gun had been given an imaginative, yet very simple, camouflage treatment. The gun was sited in a field where cornstalks had recently been cut and stacked. The Germans constructed a similar stack around the shield of their gun.

4. SNIPER EQUIPMENT

At least two different types of camouflaged cloth jackets were worn by German snipers in Sicily. One type, with which a matching helmet cover was issued, had a disruptive pattern with a green background on one side, and a pattern with a brown background on the other. The second type was an ordinary twill jacket, dyed a mottled green and brown. Both types blended well with local terrain colors, but had the weakness of revealing characteristic outlines, inasmuch as they fitted the body closely.

Section III. CONCENTRATING THE FIRE OF 81-MM MORTARS

1. INTRODUCTION

Many U. S. junior officers and enlisted men who have fought the Germans in Tunisia and Italy have emphasized the necessity for a wider and better understanding of how the Germans use their infantry mortars against United Nations forces. For this reason the following enemy discussion of concentration of fire by German 81-mm mortars should be of special interest to *Intelligence Bulletin* readers.

In connection with this article, reference should be made to "German Infantry Weapons" (M. I. D. *Special Series,* No. 14) which contains descriptions of the German 50-mm and 81-mm [1] mortars and details about their operation.

2. ENEMY INSTRUCTIONS

a. General

The fire of one or two [81-mm] mortar sections may be concentrated to achieve greater effectiveness against suitable targets. The fire unit is the section, even when two sections or a platoon are engaged. Throughout an action, platoon and section commanders must concentrate fire on the most important targets. When sev-

[1] Although this is an 8.1-cm mortar, it is called an 8-cm by the Germans.

eral appear at the same time, it may be more effective to engage them one by one, and with concentrated fire. Concentration of fire can be very effective in defense against such targets as observation posts, machine-gun nests, and assembly areas.

Good intercommunication is essential for rapid concentration of fire. For a single section, this intercommunication can usually be accomplished by word of mouth; for two sections or a platoon, a telephone line will be necessary.

Targets must be indicated as quickly as possible. The methods employed are:

a. Indication on the ground. (This is possible only for single sections, or if sections are close together.)

b. Fire by "voice control" section. (The platoon commander establishes his observation post near a section which fires on the indicated target with a single mortar.)

c. Use of reference points.

d. Use of a plan with numbered targets.

Ranging is normally done by a single mortar firing on a registration point, to make the most of the element of surprise. A range finder is very helpful for this, and should be borrowed from a machine-gun platoon if necessary. On receiving the range, the other mortar in the section will correct it for position. Fire for effect will be undertaken only after this fire for preparation, except when engaging fleeting targets or targets of considerable size. Digging-in the base plate is of great importance, especially when mortars have not undertaken fire for preparation. The possibility of danger to own troops from rounds falling short must be considered when firing mortars which have not undertaken fire for preparation.

b. By a Section

The section commander may either intrust detachment commanders with fire control or carry it out himself. In the former case, he indicates the target, or portion of the target, to detachment commanders, who carry out ranging individually and report when

they are on the target. He then orders fire for effect according to the situation. In the latter case, he either ranges both mortars himself or ranges only one of them, the detachment commander ranging the second mortar while registration is proceeding. The mortar-position noncom determines the position correction and passes the result to the second mortar.

c. By Two Sections or a Platoon

The platoon commander establishes his observation post, and details the section which is to be near him to serve as the "voice control" section. Intercommunication with the other sections is arranged. Concentration of fire of sections must be regulated both as to space and time. Sections will be allotted portions of the target, and section commanders will further distribute the fire of individual mortars. The tactical situation may make it necessary for sections to range gradually and at varying intervals. When ranging has been completed, the platoon commander will order fire for effect. The order will be passed by line, by the fire of the "voice control" section, or fire may be arranged on a time basis. The platoon commander will observe each section's fire and report corrections, but section commanders must also observe and attempt to improve their fire independently. Concentration of fire of several sections is easier if the sections are sited as close together as possible. In this case it may be possible for the ranging to be carried out by a single mortar.

Section IV. CLOSE-QUARTER FIGHTING AND WITHDRAWAL

The Battle of Primosole, which took place during the Sicilian campaign, furnishes a very good example of German tactics in close-quarter fighting and withdrawal.

The initial assault by United Nations forces was made on the morning of 15 July 1943. After bringing it to a standstill, the Germans made no attempt to defend the river line, but concentrated on holding a position in the vineyards and ditches on each side of the road, north of the bridge. This position was based on a sunken trail which ran west from the main road, about 200 yards north of the river, and which afforded concealment. Shallow trenches had been dug in the banks of the trail. The Germans also made use of ditches which ran east and west from the main road. Pillboxes in that area had been engaged by 75-mm gun fire from United Nations tanks, and for this reason were not used by the Germans.

The Germans were equipped with a very high proportion of automatic weapons, especially light machine guns. At night, light machine guns fired on fixed lines very close to the ground. The fire was coordinated

with the firing of flares. Bursts of 10 to 15 rounds were fired at a rate of about one burst every minute.

In the daytime, German machine guns were well concealed in commanding positions in ditches and along the sunken trail. Extensive use evidently was made of alternate and supplementary positions, for each machine gun appeared to fire first from one spot and then from another. Never more than two, or possibly three, machine guns were firing at any one time. This suggested the presence of a very small force, whereas in the length of the sunken trail alone (from 200 to 300 yards) the number of rifles and other weapons subsequently counted, and the number of prisoners taken, indicated that there were at least 50 to 60 men.

Individual snipers armed with light machine guns, submachine guns, or rifles were concealed in the vineyards and trees forward of, and on the flanks of, the main German position. The mission of these snipers probably was to protect the German flanks and to harass the United Nations force.

During the first part of the battle, the Germans had very few mortars. Only one is known to have fired; its fire was inaccurate and evidently not observed, perhaps because of the closeness of the fighting.

Grenade-throwing pistols and rifle grenade dischargers were used at close quarters to put down a heavy concentration of high explosive. Both types of weapons throw a high-explosive grenade approxi-

mately 20-mm in diameter. Many stick grenades and egg grenades also were used.

The Germans had four or five 88-mm guns and one or two antitank guns of small caliber, 20-mm or 37-mm. These guns were used principally to cover the main road. No attempt was made to conceal them, probably because they were brought up in great haste when the Germans discovered the presence of United Nations tanks and realized that demolition of the bridge was impossible. However, individual Germans concealed themselves in ditches by the side of the road and in culverts under the road, and engaged our tanks at close quarters with demolition charges and magnetic antitank grenades.

The German withdrawal from the defense position was accomplished at the rate of 5 to 6 miles daily. Each day the movement was made to a position previously selected. Commanding ground was the deciding factor in the choice of their positions, which afforded good fields of fire for machine guns and good observation posts for mortars. Sometimes the positions were based on natural antitank obstacles, such as river beds. Towns and villages were not used as centers of resistance, except where positions commanding a bottleneck could be obtained by the expedient of occupying houses situated on high ground. Once the Germans occupied a line of houses built on a very high ridge. A sunken road behind the houses provided good lateral communications and a covered line of withdrawal.

Patrol reports and reports from civilians indicated that the Germans usually withdrew in the early morning, between 0200 and 0400 hours, the last elements to leave often being protected by a few tanks. The type of fire which had marked German withdrawal in Africa—increased shelling and machine-gun fire at the end of the day and at intervals during the night—was not employed here.

Section V. NOTES ON GERMAN ANTITANK TACTICS

1. ANTITANK METHODS IN RUSSIA

The following observations represent an authoritative Soviet view of German antitank methods:

The German antitank defenses open up while our [Soviet] armor is moving toward the front line or when it has reached its line of departure. First, German bombers and artillery go into action to halt our attack, or at least to delay it.

The German artillery (GHQ units, divisional units, and in rare instances regimental guns) lays down a barrage about 2 miles inside our lines, and tries to smash our armor. Each German battery is assigned a frontage of about 100 to 150 yards, which it must cover. When our tanks are within 200 to 300 yards of the antitank obstacles on our side of the German main defensive area, the German guns transfer their fire to the accompanying Soviet infantry.

When our tanks are within 600 to 1,000 yards of the German main defensive area, single antitank guns (chiefly regimental) are brought into action. The main antitank strength opens up only when the range has been reduced still further, and is between 300 and 150 yards. The guns which constitute the main strength are sited principally for enfilade fire from well-camouflaged positions.

The Germans site most of their antitank weapons to the rear of the forward edge of their main defensive area. Only single guns are sited along the forward edge; their mission is to en-

gage individual tanks. As soon as an attack has been repelled, these guns change position. Antitank reserves are placed in areas most vulnerable to tank attack, especially at boundaries between units. Infantry antitank reserves consist of a platoon of antitank guns and several tank-hunting detachments, and are sometimes reinforced by infantry, field guns, and tanks.

Positions are planned for all-around defense. Two or three alternate positions are prepared for each antitank gun. Roving guns are used extensively, especially in the less vital areas. Assault guns and self-propelled antitank guns are used, not only as a mobile antitank reserve, but also as fixed weapons dug-in near the forward edge of the main defensive zone.

The main antitank weapon strength is concentrated against the flanks and rear of the attacking tanks. Gun positions are protected by antitank mines and by tank-hunting detachments. Very often, too, the Germans mine the ruts made by retreating tanks, in the hope that Soviet tanks will use them as a guide.

As the Soviet tanks reach the German main defensive line, tank-hunting detachments go into action. At this stage smoke may be used, but only if the antitank guns have ceased firing, inasmuch as smoke hinders accurate laying. When the tanks reach the German gun positions, the field guns fire over open sights.

2. ENGAGING TANKS AT CLOSE RANGE

The following order was issued by the general officer commanding the Fifteenth Panzer Division during the last days of the Tunisia fighting:

The general officer commanding the Army Group Africa desires that, as a rule, the antitank artillery engage hostile armored vehicles at ranges of not more than 800 yards, and that special attention be paid to close-range engagement of tanks by tank-hunting detachments. I repeat my instruction

that training in close-range engagement of tanks with all weapons shall be stressed. Every man in this division who knocks out a tank in close combat will receive the Assault Badge and, in addition, a special leave.

3. AN ANTITANK COMPANY LAYOUT

The following description of a German antitank company layout was provided by a prisoner of war. Since this layout would be dictated entirely by terrain factors, it should be regarded as an instance of enemy flexibility, rather than as a typical arrangement.

Platoons were in line, with their guns echeloned. Each platoon had two guns forward, about 200 yards apart, and a third gun to the rear, equidistant from the other two. The distance to the nearest gun of the adjoining platoon was about 300 yards. On each side of the gun position, there was a light machine gun, in line with the forward antitank guns and about 30 yards from the nearest neighboring gun.

Section VI. TRAINING IN A PARACHUTE MACHINE-GUN BATTALION

1. INTRODUCTION

In the summer of 1943, a German parachute machine-gun battalion issued a significant directive regarding company training. Addressed particularly to the leaders of machine-gun and mortar units, the directive is a fresh illustration of the thoroughness of German training, and also indicates the German determination to correct certain weaknesses which have been demonstrated in the past.

The directive requires that the following points be stressed in company field training:

a. Junior officers' and noncoms' technique of issuing orders.

b. Exploitation of terrain during the advance; camouflage.

c. Use of snipers to support machine guns and mortars.

d. Choice of positions by leaders of machine-gun and mortar sections.

e. Intercommunication between squads.

f. Expenditure of ammunition; fire discipline.

g. Decisions taken by leaders of small units.

h. Intercommunication between squad leaders and their company officers.

It is believed that the following extract from the German training instructions, which discusses these points in some detail, will be both interesting and informative.

2. POINTS STRESSED IN TRAINING

a. When issuing orders to their men, leaders of machine-gun and mortar sections must outline the mission clearly. Lengthy discussions are to be avoided. The sequence of orders will be that in which the following examples appear:

(1) *Enemy.*—"Enemy soldiers are occupying the group of houses just ahead of us."

(2) *Intention.*—"We're going to take those houses."

(3) *Method.*—"X's machine gun will engage the enemy."

(4) *Orders to an Individual Squad.*—"X's machine-gun position will be this side of the hedge."

(5) *Flanking Units.*—"Left of the road, a patrol of the Second Company is moving forward. On the right, and to our rear, Y's mortar is following."

(6) *Position of Leader.*—"I'm going forward. The remainder of the unit will follow, keeping 50 yards behind me."

An alternate series of examples follows:

(1) *Enemy.*—"We have reason to suspect that the enemy is occupying the small settlement just ahead."

(2) *Intention.*—"We are going to find out whether there are any enemy soldiers in the village."

(3) *Method.*—"X's machine gun will move forward to the ridge and observe the entrance to the village."

(4) *Orders to a Squad.*—"X's machine-gun position will be on the ridge, from which fire can be opened at once on the entrance to the village."

(5) *Flanking Units.*—"X's machine gun will cover the advance of Section A and maintain contact with Section B. Section A is now by the ditch; Section B is 150 yards to our rear."

(6) *Position of Leader.*—"Q and Z will come with me to the ridge. When we get there, the rest of the section will follow by the same route."

The leader of a machine-gun or mortar section will always issue orders to his whole unit. He will require one of the men to repeat the order.

Preparations will always take place under the most complete cover available, and the advance will make use of all possible cover along the way, as well as of camouflage.

b. A leader, having issued his orders, will not simply dash ahead. He will lead his men, and see to it that they take up their positions properly. He can do this only by exploiting the ground, by cleverly crawling as near the enemy as possible, and by choosing positions with the utmost care. Therefore, the wise leader will advance somewhat ahead of his men, and will have them follow him by bounds.

c. Every section has a sniper. It is the sniper's mission to cover forward movement. When weapons are in position, the sniper must be slightly to one flank. The leader must give him special instructions regarding his targets and when he is to open fire. The sniper must make every round count, and must try to demoralize the enemy without revealing the position of the main weapons prematurely.

d. The leader's choice of his own position will necessarily depend upon the situation. However, he will tell his unit approximately where his position will be, and he will detail the men who are to maintain contact with him. The leader is responsible for continuous observation of his unit's sector, for preserving silence, and for maintaining the best possible camouflage.

e. Every squad leader must immediately establish contact with his nearest neighbor. This is especially important on boundaries between units.

f. The squad leader is responsible for directing and controlling the fire of his squad's mortar or machine gun. His orders will provide for the engagement of targets in the order of their importance. He will specify the quantity of ammunition to be fired. He must be strict in seeing to it that not a round too many is fired, but also that enough ammunition is employed to deal effectively with the target.

g. Rapid changes in the situation may force a leader to make his own decisions. He must have good reasons for his actions, and must instantly report his decision by messenger to his commanding officer. He must also inform neighboring units about it.

h. In action there must be constant communication between leaders and their commanding officers. Runners must be careful not to betray, by indiscreet or clumsy movements, the positions of weapons or of the commanding officer. Terrain that the opposition can observe must be avoided. Areas which are under fire, or which are commanded by hostile weapons, must be avoided or crossed at a run. Every runner must take pride in getting his message through, regardless of the circumstances.

THE UNSEEN WAR

1. WHAT THE ENEMY WANTS TO KNOW

Mere fragments of military information can be of the greatest assistance to the enemy. Often the individual items are not significant in themselves; but when they have been pieced together with other bits of information, they may disclose secrets of incalculable value to the Germans and Japanese. Items like those in the following list are constantly being sought by enemy Intelligence:

a. *Order of battle.*—Troop movements, location and strength of units. Names and personal characteristics of high officers and their staffs.

b. *Shipping.*—Sailing dates, ports of embarkation, destinations and routes of ships. Troops and cargoes carried.

c. *War Production.*—New developments, monthly totals of specific items, changes of schedule, production details at specific plants, key items and where they are produced.

d. *War Transportation.*—Bottlenecks in transportation, weak points, key centers.

e. *War Labor.*—Difficulties, stoppages, individuals sympathetic to the Axis, and labor movements which

can be used to advantage by the Axis. Workers with relatives in Axis-occupied territory.

f. *Battle Plans.*—All details of training, production, transportation and scheduling which might indicate future strategy. Conferences, trips of high officials, messages, codes, unguarded comments which might reveal plans. Marked interest by United Nations military personnel in maps of specific areas. Activities in the field which might indicate points of attack.

g. *Battle Training.*—All details. Agents to assemble these by means of personal contacts with soldiers. Location of strategic units in training. Dates of completion of training. Probable destinations.

h. *Axis Prisoners of War.*—Location, numbers, and movements. Also, details about Axis nationals under our control.

i. *Morale of troops and civilians.*—Weak points that can be exploited by means of Fifth Column work and propaganda.

j. Our casualties, losses of material.

k. Location of antiaircraft units, landing fields, fortifications, supply depots, ammunition dumps, distribution centers, and all other strategic units of defense.

2. ESPIONAGE

The system devised by the Axis for securing military information is amazingly elaborate. It goes

everywhere and makes use of everything. Anyone who can be blackmailed or bullied into furnishing information to German Intelligence is drawn into the system, whether he is a follower of the Nazi leaders or not.

A little pressure sometimes brings a non-Nazi European into line. His wife, his children, or his parents are held as hostages, and he is told about the tortures that will be inflicted upon them if he does not do what is expected of him. He is then trained for his mission and is allowed to "escape" to the United States or Latin America. Many refugees—Christians and Jews alike—from Poland, France, and the Low Countries were subjected to such pressure and sent over to the United States to secure information on specific subjects. Lists of these subjects are constantly turning up on microfilm, in code, and in information from neutral countries. Sometimes the unfortunate person who has been bullied into working for the Axis reports the whole matter to United States authorities. Recently such a man defied the Gestapo and turned over all his information to the FBI, performing a great service; through his cooperation and through the work of many American investigators, an entire Nazi spy ring was rounded up and its leaders executed.

But the use of hostages is only one method. Blackmail is another. For example, agents were dispatched to the American republics before Pearl Harbor to check on all Axis nationals, naturalized or not, who were in

trouble with the police, who had made themselves vulnerable by shady activities in the past, or who were experiencing business difficulties. Lists of these people were compiled. Some were forced to travel on Axis errands. Others were required to set up businesses which could serve as fronts for espionage. Many were placed in war plants. Others were dispatched on "professional" missions to gather facts for their masters. Although Axis spy rings are broken from time to time, they are continually being re-formed. The following is typical of questionnaires with which Berlin furnishes these agents.

INSTRUCTIONS ISSUED TO AXIS AGENTS BY GERMAN INTELLIGENCE

Information regarding the following matters is to be secured:

Order of Battle

a. Identification of Army units located in Iceland, Greenland, Newfoundland, and at the bases leased by Britain to the United States.

b. The composition and effectiveness of tank companies used to protect airdromes.

c. Composition and number of all parachute units and air landing personnel. Where are these units trained?

d. Description of all insignia. Color of uniforms. Vehicles used by all troops observed. To what units do they belong?

e. Location of all bases where American troops are located.

f. Composition of all large units (division or higher).

g. Where are the headquarters? Names of commanding officers, and personal data about them? How many armored divisions?

h. Coast defenses. All details, including land and water obstacles, antitank guns, flame throwers, artillery, and fortifications.

i. All troop movements. Dates, routes, details of all components involved.

j. Always indicate how the information was obtained.

Air Forces

a. Disposition of air units.

b. Activation of new air units.

c. Presence, and degree of advancement, of Allied pilots in U. S. flying schools.

d. Number (identification) and strength of antiaircraft units.

e. Number (identification) of pilots: Army, Navy, and civilian.

f. Number (identification) of aviation ground personnel: observers, radio-telegraphists, and mechanics.

g. Losses of planes and aviation personnel in combat.

h. Number of available planes of all types. Disposition.

i. Fields used as points of departure, by U. S. Air Forces in Great Britain for bombing attacks against Germany and Northern France.

j. Details concerning these airdromes.

k. Position of antiaircraft batteries. Number? Types and calibers?

l. Searchlights. How many?

m. Signal lights for night flying.

n. Fuel dumps. Above ground? Under ground? Types of roofing?

o. Types and condition of runways.

p. Repair shops. Assembly shops. How important?

q. Number of hangars per field. What kind? Size?

r. Is the airdrome a base for a bomber command, a fighter command, a coastal command, or units engaged in other work?

s. Identification of each group and its squadrons.

t. Flying schools. Locations. Courses of instruction. Number of pupils.

u. How are barrage balloon units organized?

v. How are the antiaircraft divisions subdivided? The antiaircraft regiments? Listening stations and alarm methods.

w. Is the antiaircraft defense dependent upon the Army? Upon mobile or fixed defenses?

x. Types of planes transported from the United States. Quantities (per month or per week). Airports of arrival.

Parachutists

a. All details concerning locations of parachute units. Names of bases. What are the nearest towns? How far away?

b. To what armies are parachutists being attached?

c. Number and types of planes destined for the parachutists?

d. How long is the course of instruction?

e. Where are the parachute instruction centers located?

Convoys and Shipping

a. Itineraries of war matériel convoys.

b. Places where matériel for embarkation is concentrated.

c. All details on composition and load of convoys. Formations adopted by ships.

d. Debarkation ports in the countries for which matériel and troops are destined.

e. New embarkation and debarkation bases in the United States, on the European continent, and in Africa.

f. Bases in South America for the transportation of troops and matériel destined for Europe, Africa, and the Near East.

g. Plane bases in South America. Bases for war matériel in general.

h. New sea lanes used in transporting supplies and raw matériel from Africa and South America to the United States, and lanes used along both coasts of the American continent.

i. Results of attacks on shipping.

j. Statistics of total U. S. tonnage.

k. Means of protection employed for transports and convoys by aviation and antiaircraft units.

l. Losses of plane carriers and other units of the Navy and Merchant Marine.

m. Arrival of convoys. It is important to know in advance the time of arrival of the convoy, the nature of the load of the convoy, the names and tonnage of the ships, and the same details regarding convoys that are leaving.

n. New combat methods employed against submarines and mines.

o. Precise nature of damage to warships.

p. Effect of mines. Effect of air attacks against ports and port installations.

q. Passenger ships equipped with cranes.

r. Cold storage plants in the great ports. To what extent are these plants utilized, and what kinds of merchandise are stored?

Lend-lease Material

a. All data regarding matériel, especially the number of planes transported per month or per week. Airports of arrival. Routes traveled. New developments. Note especially any increase in quantities, or changes in specifications which might indicate use in a particular geographic area.

b. Raw material and machinery for war production.

c. All armament and ammunition, especially for aircraft.

d. Antiaircraft equipment, searchlights, all methods of detection.

e. Replacement parts for airplane motors.

f. Fuselage of planes with or without motors.

g. Points of concentration for war material to be transported to lend-lease countries.

War Industries

a. Location of naval shops, docks. Dates when units of the Navy and Merchant Marine are placed in the shops, when construction is begun, and when it presumably will be completed. Data on specifications and all equipment.

b. Location of factories serving war industries. Layouts of these factories.

c. Types of manufacture undertaken by each war plant. All available data, including monthly statistics.

d. Types of raw material most urgently required in these industries, and scarcities of essential material.

e. All developments and changes in production.

f. Conditions within factories.

g. The food situation in general. Quantities? Prices?

h. Where and in what quantities are what gases being manufactured?

i. Information about electronic production and research.

3. FIFTH COLUMN METHODS

The following methods are commonly employed in espionage. They are also used in preparing the ground for sabotage:

a. Embassies, legations, and consulates in neutral countries are utilized to control the activities of agents in general and to serve as clearing houses for information.

b. Neutral ministries in United Nations countries are often infiltrated for the same purpose.

c. Consulates of nations under Axis control are forced to report on all nationals or refugees in key United Nations cities and strategic areas. Vulnerable individuals are then blackmailed into collaborating with the Axis.

d. Agents are placed in key United Nations and neutral cities to direct Fifth Column work and to apply pressure wherever needed.

e. Bogus refugees are sent to strategic United Nations cities or to "jumping-off" points in neighboring nations, to be used in espionage.

f. Threats of reprisal are made against relatives in Axis-controlled territories to keep genuine refugees and other vulnerable individuals in line.

g. Attempts are made to plant key agents in legislative and executive agencies of United Nations governments, and on the payrolls of states and municipalities. Appointments pertaining to key services, such as transportation, police, and communications, are especially sought.

h. Attempts are made to get agents into patriotic organizations and philanthropic groups, especially those close to the armed forces.

i. Sincerely patriotic individuals are used as "fronts" and are led to indorse Axis agents.

j. Agents infiltrate into political, racial, and religious organizations, and turn them against each other.

k. Agents infiltrate into labor unions, especially communications unions. By dividing and confusing labor groups, the agents attempt to turn the balance of power to their own advantage.

l. Armed groups are established under various patriotic or social auspices.

m. Agents are placed in key overseas areas to collect information about United Nations troops and matériel, as well as to stir up discontent among local groups.

n. Whispering campaigns are started against friendly nations, especially against Great Britain. Nationalist movements are encouraged to disseminate anti-British propaganda.

o. Propaganda is spread among non-white races in the United States, especially among Negroes. The cooperation of all non-white races with the Japanese is urged for overthrow of the whites. The greater part of Japanese Fifth Column work is carried on in this field.

p. Particular use is made of social leaders, scientific men, scholars, and other prominent individuals who have emigrated from countries occupied by the enemy. Their families or their money are held under promise of release if they will work for the Axis.

q. Pacifist groups are encouraged, and bona-fide religious groups are duped into protecting them.

r. Agents infiltrate into the armed forces to spread discontent and encourage propaganda against United Nations aims.

s. Attempts are made to introduce code into radio network broadcasts.

t. Attempts are made to secure classified documents, photograph them on microfilm, and return them without arousing suspicion.

u. Attempts are made to use press cards for admission to key installations, for interviewing informed officials, and for getting into places where classified information can be picked up verbally or otherwise.

v. Attempts are made to use legitimate magazines and trade and technical publications as "fronts" for getting photographs of key installations and equipment. Violations of the Censorship Code are encouraged so as to establish precedents and to make the Code inoperative whenever possible.

w. Agents infiltrate into civilian defense and war relief agencies.

x. Subversive literature is distributed, not only among national, racial, and religious groups, but to members of the armed forces.

y. Food and gift packages are sent to promising members of the armed forces, and hospitality is offered. Efforts are made to dupe the recipients into revealing information. When service men and women voice slight grievances, every effort is made to encourage and magnify these complaints so that discontent will spread.

4. LOOSE TALK

Unguarded conversation takes place everywhere, but especially in bars, cafes, restaurants, dance halls, barber shops, beauty parlors, hotels, railway stations, and public conveyances. There is a great deal of it in the family circle, especially when men and women of the armed forces are home on furlough. It takes place wherever people relax and give in to the human temptation to show off, to gossip, or to pass on an interesting item just for the sake of relieving boredom.

Ernest Lehmitz, the Staten Island air-raid warden who sold military secrets to Germany, made full use of our American weakness of talking too freely to people we like. He patronized bars and restaurants where soldiers, sailors, and war workers gathered. Lehmitz went into as many as five or six such places a day. Incidentally, he worked in a restaurant himself, as many agents do. He was regarded by his neighbors as an upright and patriotic American citizen. The best Axis agents usually are so regarded, not only because our innate sense of fair play often causes us to lean over backwards in giving naturalized citizens the benefit of the doubt, but also because they appear to be exemplary individuals. Naturally, they pretend to be violently anti-Axis.

From their vantage points in war factories, in shipyards, in the armed forces, and elsewhere, undiscovered enemy agents are in a good position to profit from the indiscretions, the mistakes, and the friendly trustfulness of others. They are pleasant fellows in bars, generous at setting up the drinks for soldiers home on leave and for dockworkers wanting a little amusement after hours. They like to talk to workers in war plants, or to trusting clerks on a night out. They ask harmless-sounding questions, after telling interesting things themselves. Some of these agents are inducted into the Army in the natural course of events. Careless talk among soldiers and officers is particularly undesirable, not only because agents often

succeed in wearing the uniform for an appreciable period, but because members of the armed forces have constant access to vital information. The example they set in guarding it is of the greatest importance. One of the most frequent comments made by civilians on the subject of loose talk is that men in uniform are guilty of most of it. The moral is obvious.

U. S. GOVERNMENT PRINTING OFFICE: 1944