

5-3 RESTRICTED

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**THE
ARMORED FORCE**



Employment of Armored Units

**THE ASSAULT GUN
SECTION AND PLATOON**

RESTRICTED

950

HEADQUARTERS ARMORED FORCE

Fort Knox, Kentucky

February 16, 1942.

This document is published as a guide for the tactical training and operation of the Armored Force.

The tactical procedures and methods set forth herein are not to be followed as arbitrary rules but as a basis for uniform tactical training and operations.

A departure from the guide lines set forth is a privilege of command but such departure must be justified by results.

BY COMMAND OF MAJOR GENERAL DEVERS:

E. N. HARMON,

**Colonel, General Staff Corps,
Chief of Staff**

OFFICIAL:

**F. A. MACON,
Lieut. Colonel, A. G. D.
Adjutant General**

DISTRIBUTION "A".

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SYMBOLS USED IN ILLUSTRATIVE SKETCHES

To simplify description and expedite publication certain special symbols have been used in the sketches appearing throughout this book. A key to these symbols appears below.

	ASSAULT GUN
	AMMUNITION CARRIER
	PLATOON COMMAND CAR
	LIGHT TANK IN MOTION
	MEDIUM TANK IN MOTION
	LIGHT TANK IN POSITION
	MEDIUM TANK IN POSITION
	SCOUT CAR
	ARTILLERY (HOWITZER)
	ANTI-TANK GUN
	ANTI-TANK GUN IN POSITION
	HEAVY MACHINE GUN
	HEAVY MACHINE GUN IN POSITION
	RIFLEMAN
	OBSERVATION POINT
	BUNKER WITH LOOP-HOLE
	EXPLOSIVE SHELL FIRE
	SMOKE SHELL FIRE

CHAPTER 1

INTRODUCTION

1. **PURPOSE.**—The purpose of this text is to outline the tactical employment of the assault gun section and the assault gun platoon in the basic combat situations of the Armored Division. It is not the intention that the rules laid down be considered inflexible. They are guide lines.

2. **TYPES OF ASSAULT GUN.**—The principles of tactical employment set forth in this text will, with minor exceptions, hold good for any type of assault gun. A standard type has not yet been determined, but one of the three types shown (Figures 1, 2 and 3) will probably be issued to the service initially. Figure 4 shows the development type of self-propelled mount to be used as the divisional artillery weapon.



Figure 1. M3 T/2 mounting 75-mm howitzer.

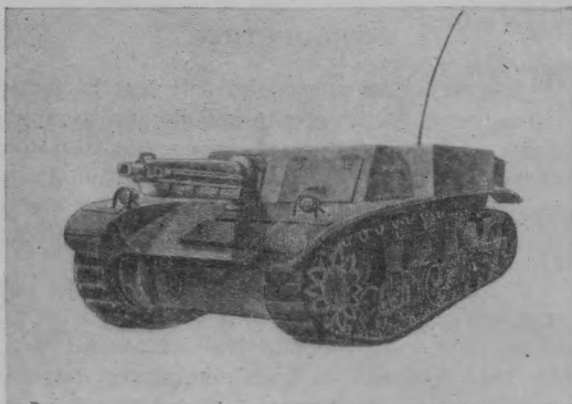


Figure 2. Light tank chassis (M3) mounting 75-mm howitzer.



Figure 3. Trackless tank chassis mounting 3" anti-aircraft cannon. A development type of assault gun.

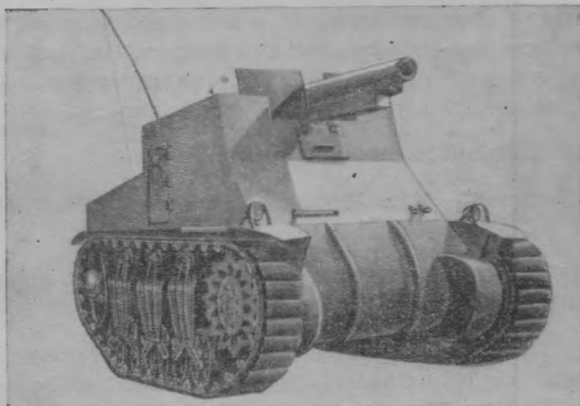


Figure 4. Medium tank (M3) chassis mounting 105-mm howitzer. Divisional artillery weapon.



Figure 5. Self-propelled gun used as "tank destroyer". Equipment of anti-tank battalion.

3. ORGANIZATION.—a. The assault gun platoon consists of three sections and a command vehicle. The assault gun section (gun, car and ammunition carrier) is an organic part of the following organizations in all of which it is identically equipped and manned.

(1) Reconnaissance Platoon.

(2) Assault Gun Platoon, Headquarters Company, Tank Battalion (L and M).

(3) Assault Gun Platoon, Headquarters Company, Infantry Battalion (Armd).

b. The Platoon Headquarters of the Infantry Gun Platoon (one M2 half-track) is similar to that of the Tank Battalion Gun Platoon except with the addition of four riflemen.

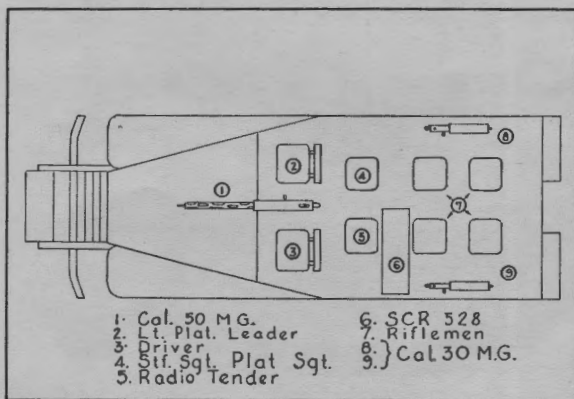


Figure 6. M2 T/2 platoon command car with crew in mounted position.

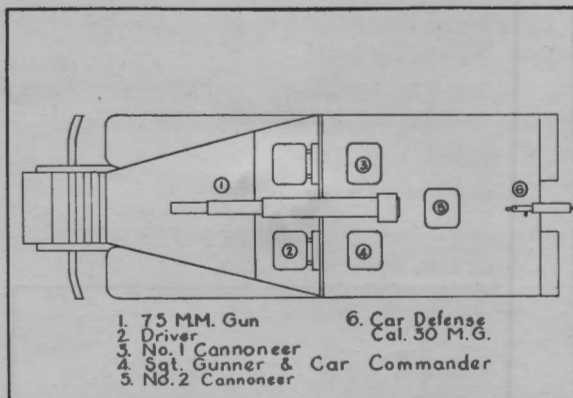


Figure 7. M3 T/2 assault gun car with crew in mounted position.

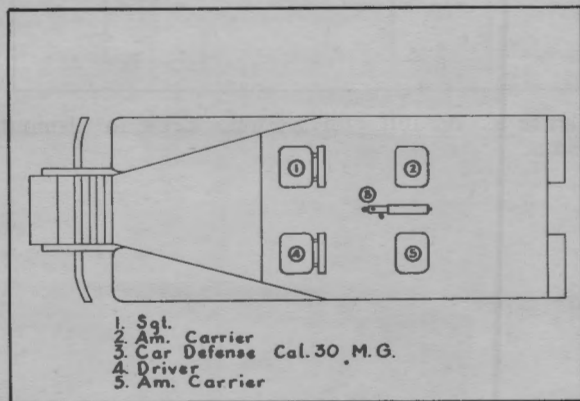


Figure 8. M3 T/2 Ammunition car with crew in mounted position.

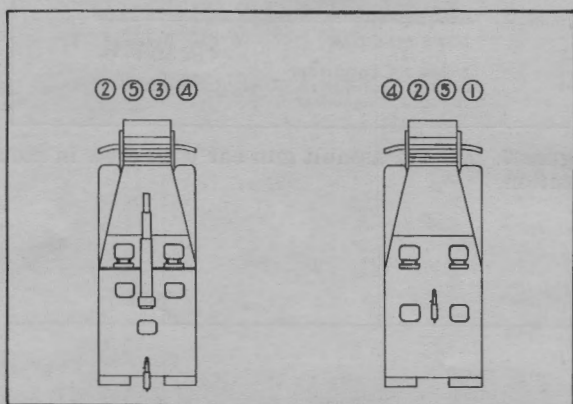


Figure 9. Assault gun section. Crew in dismounted positions.

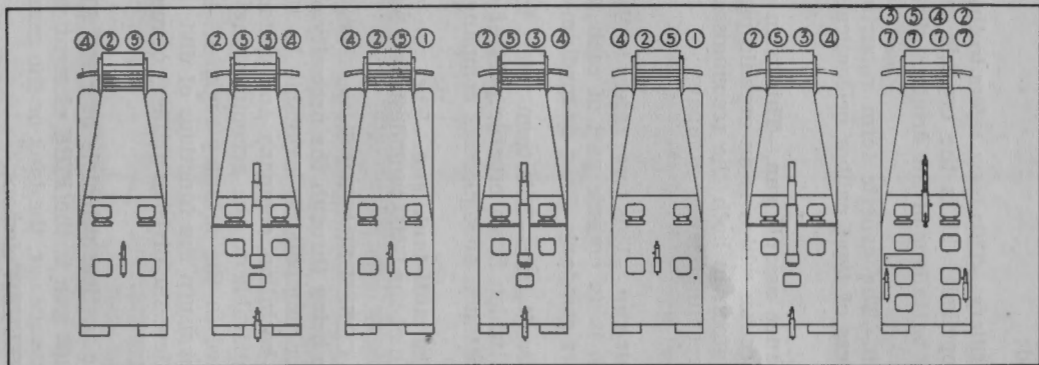


Figure 10. Assault gun platoon of the tank battalion and infantry battalion, armored. Crew in dismounted position. Tank gun platoon (1-25). Infantry gun platoon (1-29).

4. **DEFINITIONS.**—For purpose of clarity, the following terms are used:

a. **Division artillery.**—This term refers to the 105-mm howitzer (self-propelled). It is the organic weapon of the three artillery battalions of the armored division.

b. **Assault gun.**—The generic term referring to assault gun regardless of type, caliber or tactical employment.

c. **Reconnaissance assault gun.**—This term refers to the assault gun section which is an organic part of the reconnaissance platoon in both the reconnaissance battalion and the reconnaissance company of the tank regiment.

d. **Tank assault gun.**—This term refers to the assault gun platoon which is an organic part of each tank battalion headquarters company (light or medium).

e. **Infantry assault gun.**—This term refers to the assault gun platoon which is an organic part of each armored infantry battalion headquarters company.

f. **Self-propelled anti-tank gun.**—The gun which is the organic weapon of the GHQ tank destroyer battalions.

5. **GENERAL CONSIDERATIONS.**—a. The assault gun has come into being through the necessity of having artillery fire power immediately available to the small unit commander—battalion, company and platoon. Historically it is comparable to the accompanying artillery which was attached to the infantry regiment in World War I. It does not usurp the functions of division artillery but it does relieve the division artillery of many close support missions.

b. In the basic tactical principle of **FIRE AND MANEUVER** the assault gun is the **FIRE** element while the armored reconnaissance car, the tank or the armored infantry is the **MANEUVER** element.

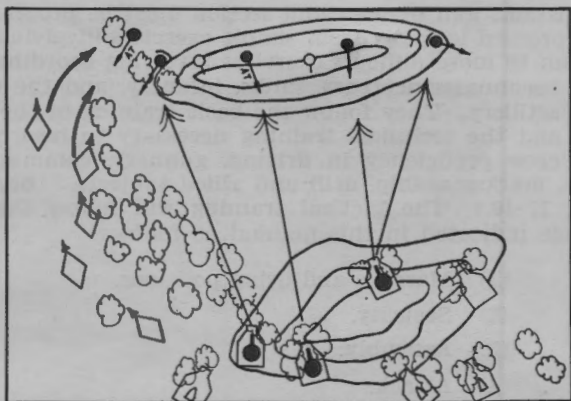


Figure 11. Fire and maneuver.

6. USE OF ILLUSTRATIONS.—This text contains a large number of illustrations. It has been said that a picture is worth 10,000 words. It must be remembered that it requires almost the same amount of time to understand a picture as it does to read and understand 10,000 words. **DON'T LOOK AT THE PICTURES! STUDY THEM.**

CHAPTER 2

TRAINING

7. **GENERAL.**—a. The tactical training exercises for the assault gun platoon and section must be progressive and proceed logically from simple exercises involving the section to more difficult exercises involving coordination with reconnaissance cars, tanks, infantry, and the division artillery. They follow the basic training of the soldier and the technical training necessary to insure the gun crew proficiency in driving, gunnery, communications, marksmanship, drill and allied subjects. (See FM 17-5, 17-10.) The tactical training will follow the sequence indicated in this manual as follows:

- (1) Marches and firing positions.
- (2) Security.
- (3) Assembly.
- (4) Attack.
- (5) Pursuit.
- (6) Defense.
- (7) Delaying action.
- (8) Withdrawal.

b. The subject of assembly is taken up before attack because the procedure is basic and must be executed before and after every type of attack. The major portion of the time devoted to field training should be spent on the large number of attack situations with which the commander must be familiar. Due to the limited size of the gun crew, all drivers and ammunition carriers must be trained in the duties of cannoneers.

8. **TRAINING PROCEDURE.**—It has been the custom to consider tactical training exercises as something to be gotten through with quickly and with as little discomfort as possible. It must be fully realized that the only purpose of training is to prepare for battle. Therefore, tactical exercises are a vital portion of training. They are

the final dress rehearsal before the curtain goes up. Tactical solutions will not be stereotyped. Initiative in solutions will be encouraged. Conversely, the slightest change in the situation always presents a changed problem. The following procedure will be used in the preparation and execution of all tactical training exercises:—

a. The officer in charge of training selects the ground and sets up the problem. He plays it out on the map with other officers.

b. The problem is then played out on a sand table using numbered blocks of wood or miniature cars to represent the vehicles. During this phase the non-commissioned officers and selected privates are present. The problem should be worked several times, calling on the non-commissioned officers for their solution.

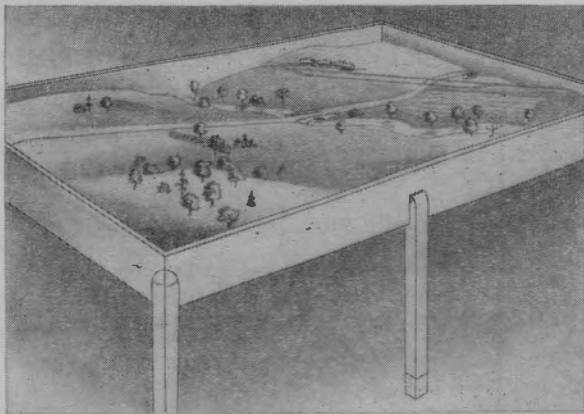


Figure 12. Sand table layout for preliminary instruction in tactical exercises.

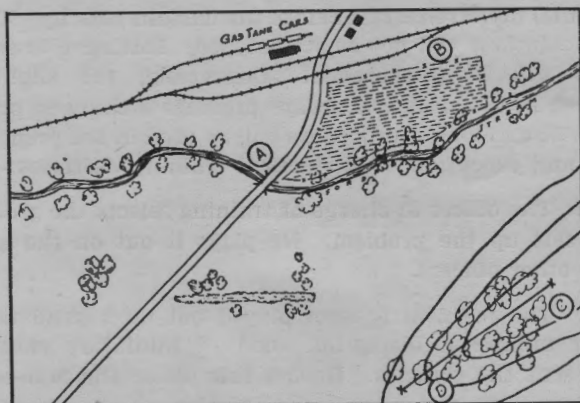


Figure 13. Illustrative Problem. Tank platoon attacking railway station, supported by assault gun section.

Illustrative Problem.—Figure 13 shows a possible layout for a sand table problem. The officer conducting the problem sets up the sand table. He states the problem to the student group as follows:

"The purpose of this problem is to illustrate the action of an assault gun section, supporting a tank platoon. It must be borne in mind that this is just a small phase of a far larger action. There are other tank units to the right and left. Infantry and division artillery are to the rear.

"You are in hostile territory.

"The tank platoon assembled at D, supported by the assault gun section at C, has the mission of attacking the railway siding and destroying all installations.

"There has been no reconnaissance to the front beyond line x—x.

"Any student may be called on to act as tank commander, tank platoon leader or assault gun section leader. He will be required to answer one of two questions.

"Estimate of the terrain.

"Decision and orders necessary to meet the situation."

With this introduction, the instructor asks for the decision and orders of the tank platoon sergeant to include his orders to the assault gun section.

Note that the instructor has given no enemy information beyond the fact that the platoon is operating in hostile territory.

The instructor having heard the student's decision and order, directs him to move the miniature vehicles to initial positions.

From that point on the successful conduct of the problem depends upon the imagination and thorough preparation on the part of the instructor. There are a wide variety of small situations he can introduce to illustrate important points. A few suggestions appear below:—

Ammunition car fails to start.

Heavy firing is heard on the flanks.

Enemy AT gun opens fire from point A.

Enemy machine guns open fire from B.

All these require the decision and order (action) of the leaders or an estimate of the terrain.

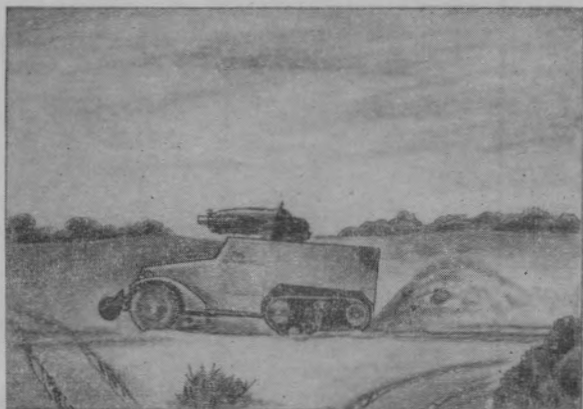
c. Following the sand table phase, the section or platoon executes the problem on the ground. Once is not sufficient. After the first play all personnel should be assembled, the problem critically discussed and questions answered. The problem should then be executed again. If a satisfactory degree of proficiency has not been attained, the problem should be played a third and, if necessary, a fourth time. With some of the more difficult problems, it will be necessary to practice an even greater number of times.

d. During the practice officers and non-commissioned officers must be alert to observe errors in technique and make proper corrections on the spot. If any individuals

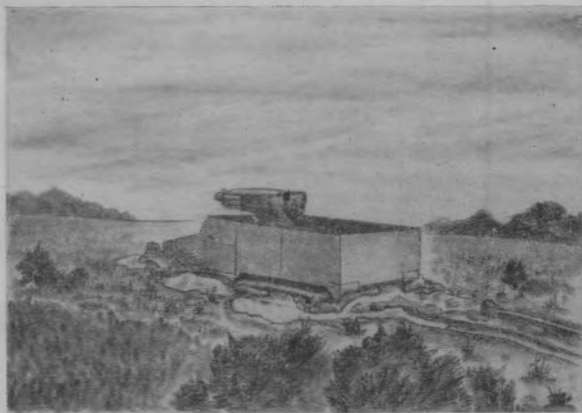
appear who are not basicly trained, corrective measures will be initiated at once. These may take the form of special instruction or special corrective physical exercises.

9. STUDY OF TERRAIN.—Battles are won or lost by the ability of the leader and soldier alike to make the maximum use of the ground. Throughout all phases of training the officers and non-commissioned officers must stress tactical appreciation of the terrain. All personnel will be trained to ask themselves the questions listed below and be ready to answer them promptly and accurately. The question and answer method serves to keep the personnel alert and to improve their powers of observation.

a. What is the nature of the soil? Is it hard or soft? Will the vehicle sink in a short distance and then be able to move forward, or is there a crust which may carry the vehicle for a time and then break, bogging the machine?



Soft. Vehicle sinks in short distance. Is able to proceed in low gear.

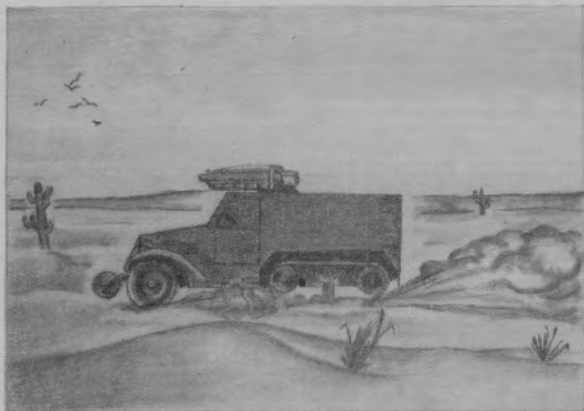


Crust. Vehicle breaks through and bogs.

Figure 14.



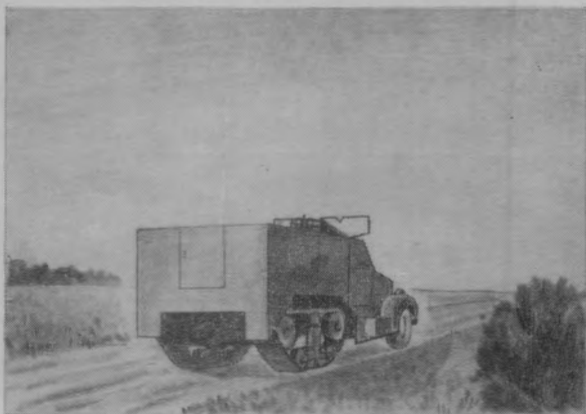
Hard. Good travelling.



Sandy. Passable but increases fuel consumption.

Figure 15.

- b. Is the ground level or rolling?
- c. Is the surface eroded, forming natural barriers around which a route must be reconnoitered?



Level and open. Requires more care in camouflage.



Rolling. Offers good cover and excellent firing positions. If soil is hard, watch for eroded places.

Figure 16. Nature of Terrain.

d. How are the stream banks? Soft and swampy, or hard? Steep or sloping?

e. How are the stream bottoms? Hard sand or gravel, or soft mud?



Swampy. Will probably require hasty corduroy. Avoid tracking.

Sandy and hard. Can be crossed easily. Precipitous requires bridging or cutting banks.

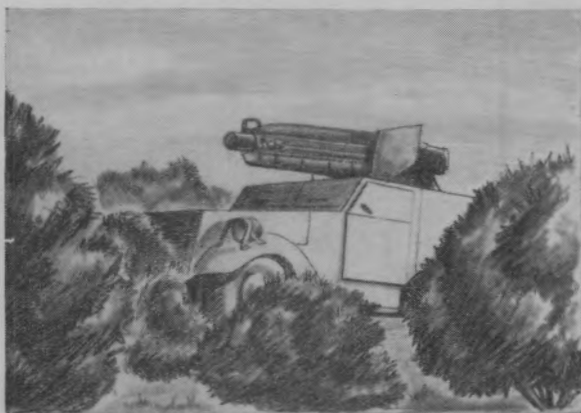
Figure 17. Nature of stream banks.

f. What is the type of vegetation? Does it provide concealment—from air observation, ground observation?

g. Does the terrain offer good firing positions?



Forested. Requires careful reconnaissance to traverse. Offers poor fighting positions. Good concealment.



Light brush. Easy to traverse. Good firing positions. Good concealment from ground but poor concealment from air observation.

Figure 18. Type of vegetation.

10. **SELECTION OF POSITION.**—The platoon leader, the gun commander and every member of the crew must be trained to constantly ask and answer two vital questions: **WHERE IS THE NEXT SUITABLE FIRING POSITION TO MY FRONT—MY FLANKS?** Following this, each man must ask and answer: **WHAT IS THE BEST AVAILABLE ROUTE TO THAT POSITION—OUT OF THE POSITION?** Every time a hill is crossed or a corner turned these questions must be asked, and answered. Illustrations of firing positions appear in Chapter 3 of this text.

11. **RANGE ESTIMATION.**—Training in range estimation is not a subject to be covered in an hour lecture and then forgotten. It is a continuing subject and ties in naturally with appreciation of the terrain. The basic principles of range estimation are illustrated in Figures 19 and 20. All men must be accustomed to range estimation and should automatically estimate the range to prominent land marks.

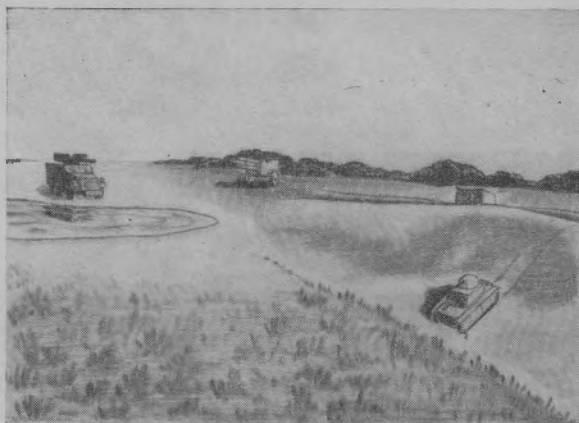


Figure 19. Range estimation. Conditions under which objects appear close.



Figure 20. Range estimation. Conditions under which objects appear more distant.

12. RANGE CARDS.—In certain situations (outpost, defense, delaying action) range cards must be prepared. The section leader prepares a card for his gun. The platoon leader (if the platoon is acting as a unit) prepares a consolidation range card.

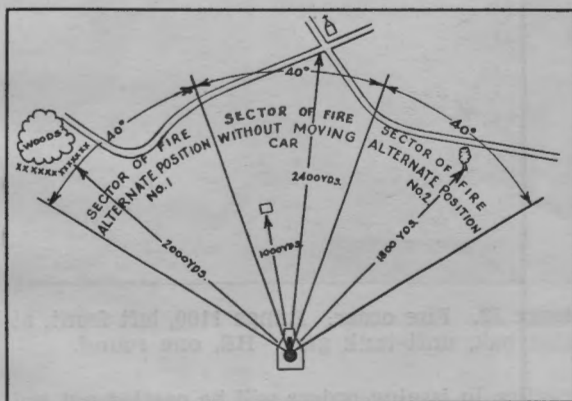


Figure 21. Range card.

13. **DECISIONS AND ORDERS.**—The decision to open fire and the selection of targets is the prerogative of the commander of the supported unit. He may, however, direct the platoon leader or the section leader to select and occupy a position and open fire on favorable targets without further orders. Since this will frequently be the case the leader must be prepared at all times to decide promptly upon the most important target, if more than one appears, and to issue clear and unmistakable orders to initiate fire. All fire orders must include:—

- a. Range.
- b. Direction.
- c. Description of target.
- d. Type of ammunition (HE, Smoke).

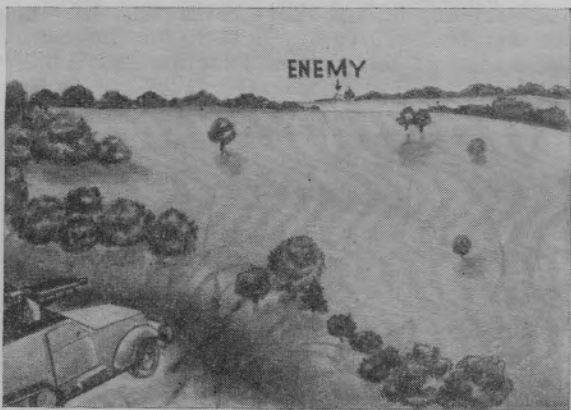


Figure 22. Fire order. Range 1100, left front, at base of large oak, anti-tank gun. HE, one round.

Practice in issuing orders will be carried out not only in field exercises, but in the sand table practices.

14. COMMUNICATIONS.—The platoon leader and the car commander must be trained to use all means of signal communication available to them. The use of voice radio to direct movement of gun sections will be habitual. To this end, the platoon leader and the gun commander will habitually wear the ear phones and be trained in the use of voice radio procedure. The most important signals used by the assault cannon section or platoon leader are:

a. Whistle signals:—

- (1) **One short blast**—Attention to orders.
- (2) **One long blast**—Cease firing. This signal will be verified by arm-and-hand or other type signal.
- (3) **Three long blasts**—repeated several times. Danger, air or mechanized attacks. It is followed by the individual giving the signal, indicating the direction of attack.

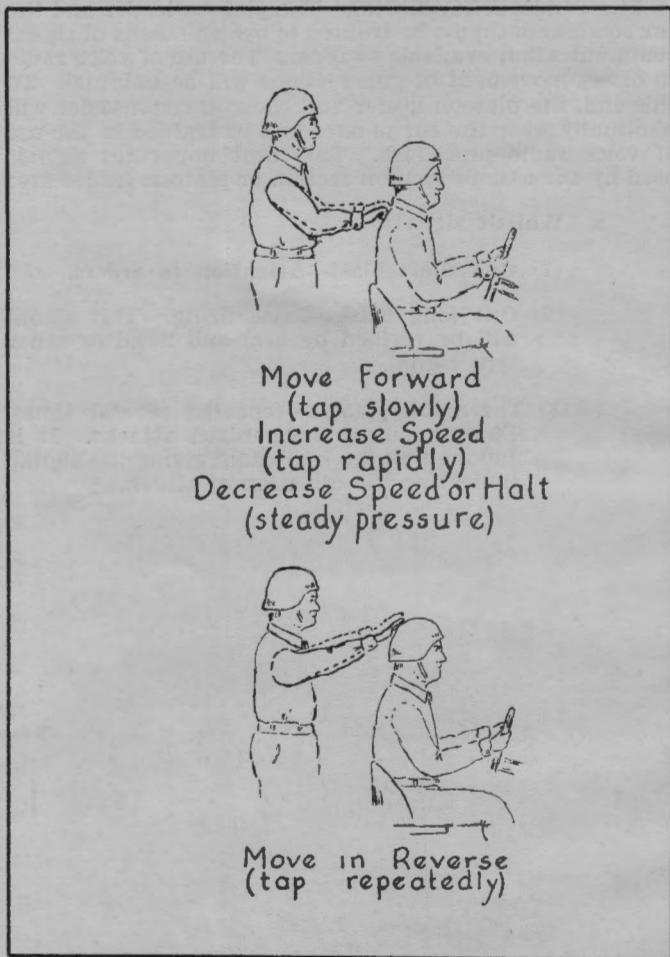


Figure 23

b. Touch signals—See Figure 23.



Change Direction
(press on right or
left shoulder until
turn is finished)



Action Front, Right,
Left, or Rear (thrust
fist in direction of
action)



Are you, or I am
ready (extend
arm)

Figure 23

b. Touch signals—See Figure 23.

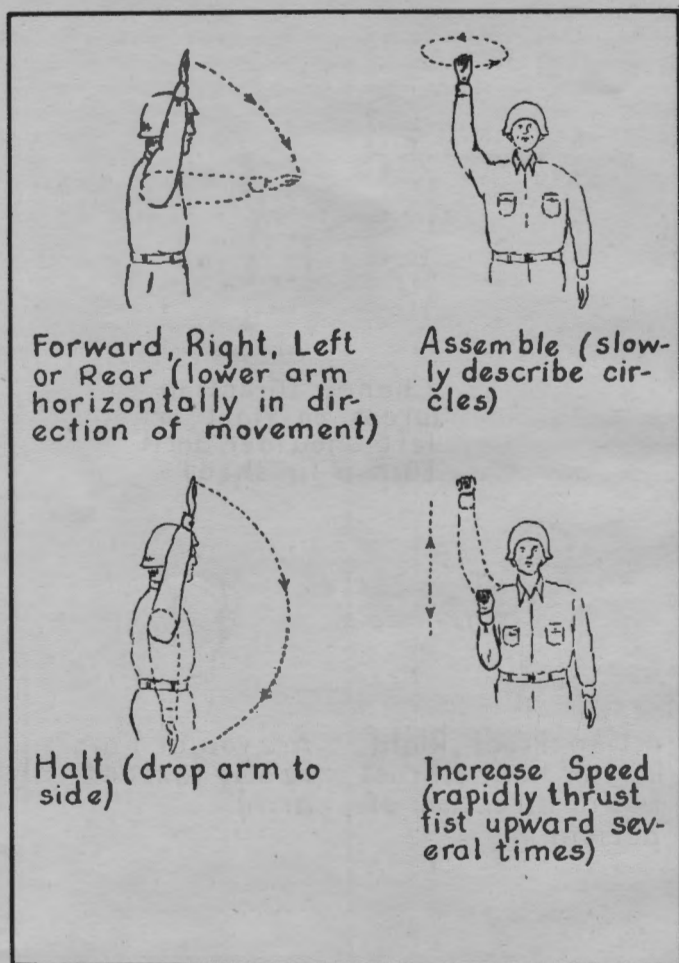


Figure 24

c. Arm-and-hand signals—See Figure 24.

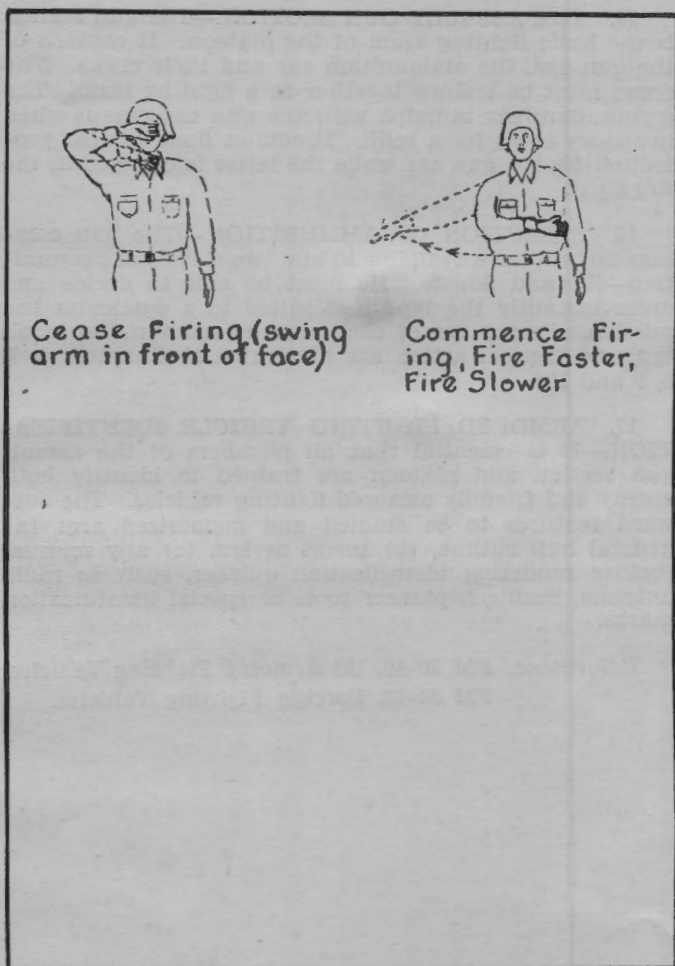


Figure 24

c. Arm-and-hand signals—See Figure 24.

15. **THE ASSAULT GUN SECTION.**—The gun section is the basic fighting team of the platoon. It consists of the gun car, the ammunition car and their crews. The crews must be trained together as a fighting team. The ammunition car remains with the gun car except when necessary to go for a refill. It acts as flank or rear protection for the gun car while the latter is engaged in the fire fight.

16. **SELECTION OF AMMUNITION.**—The gun commander will have available to him two classes of ammunition—HE and Smoke. He must be able to decide and order instantly the type best suited to a particular fire mission. Proper use of each class of ammunition in all types of tactical action are illustrated in Chapters 6, 7, 8, 9 and 10.

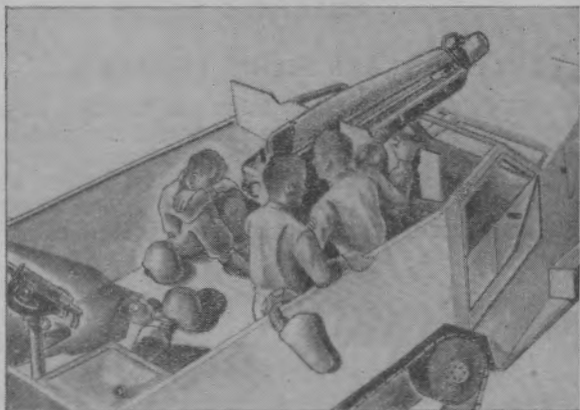
17. **ARMORED FIGHTING VEHICLE IDENTIFICATION.**—It is essential that all members of the assault gun section and platoon are trained to identify both enemy and friendly armored fighting vehicles. The outward features to be studied and memorized are: (a) general hull outline, (b) turret design, (c) any unusual feature rendering identification quicker, such as radio antenna, mufflers, pioneer tools or special identification marks.

References: FM 30-40, US Armored Fighting Vehicles.
FM 30-42, Foreign Fighting Vehicles.

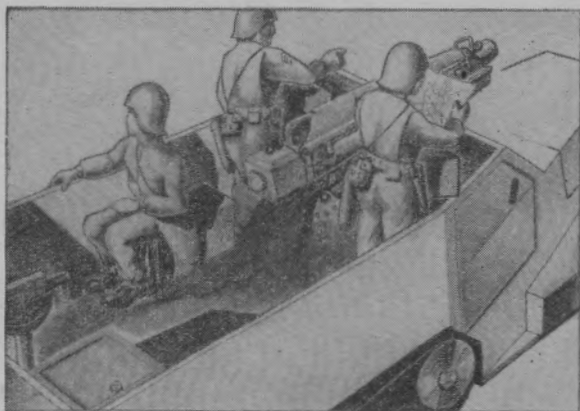
CHAPTER 3

MARCHES AND FIRING POSITIONS

18. GENERAL.—March training and march discipline are the foundation stones for successful occupation of firing positions, attack and movement to assembly areas. Marches must be conducted in a military fashion at all times. They are not joy-rides, during which everyone except the driver enjoys the scenery or goes to sleep.



Do not remove equipment and go to sleep.



Remain alert. Have air sentinel and navigator on duty.

Figure 25. March order. The crew.

19. DUTIES OF CREW.—a. Car Commander.—(1) He is responsible that the driver and the assistant driver perform the proper vehicle checks and that they rotate at the controls so that neither becomes excessively fatigued.

(2) He checks the equipment for its presence and serviceability and insures that it is loaded in its proper place and securely fastened.

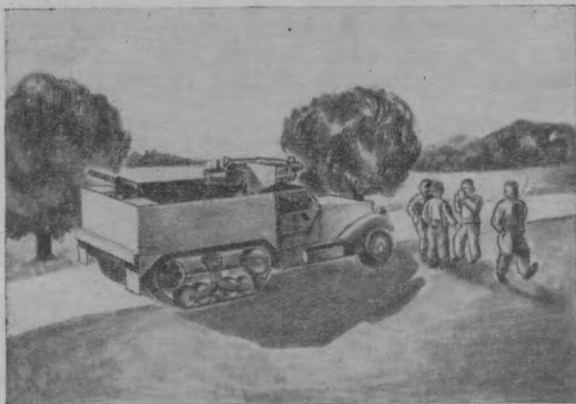
(3) He is responsible that the radio tender (if one is assigned) checks the radio and that it is in working order.

(4) He appoints a car navigator, either himself or some member of the crew. The appointment of a navigator, does not relieve the car commander of the responsibility for maintaining the prescribed speed, distance and route.

(5) He appoints an air sentinel. The duties of air sentinel must be rotated frequently.

(6) He requires one man to remain on the alert and in position to man the car defense machine gun during halts.

(7) He requires the driver to perform the proper vehicle checks at the halt.



Do not stand idle during a halt.



The vehicle commander is responsible that all members of the crew perform their proper duties during a halt.

Figure 26. Duties of crew.

(8) Except when in the immediate presence of the enemy, crew members are permitted to relax in order that they may be in condition to take their turn at the above listed duties. On forced marches, the car commander should encourage the crew members not on duty to sleep.

(9) When in immediate presence of the enemy, all members of the crew are alert, the gun is loaded and the defense machine gun is half-loaded. Carbines are ready at hand.

b. **Navigator.**—The navigator is the guide. He must know the prescribed speed, the distance between vehicles, and his place in column. He must have a map or sketch of the route or written directions of where to go and how to get there. At the start of the journey the navigator sets the odometer trip mileage to zero. As the march progresses he jots down the mileage to cross road and other important terrain features and notes the time. At all times the navigator should know the general direction of travel and should keep himself oriented by means of his compass, the sun or the stars. Thus, if a wrong turn is made, it will be promptly noted. The record of mileages will enable rapid back-tracking.

20. **FORMATIONS.**—There are two formations used by the assault gun platoon. These are illustrated in Figures 27 and 28.

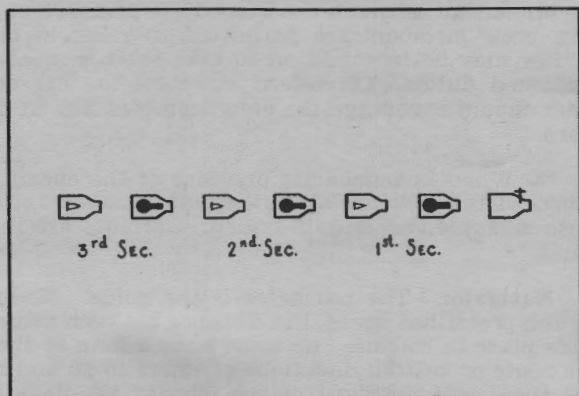


Figure 27. March formation. Column.

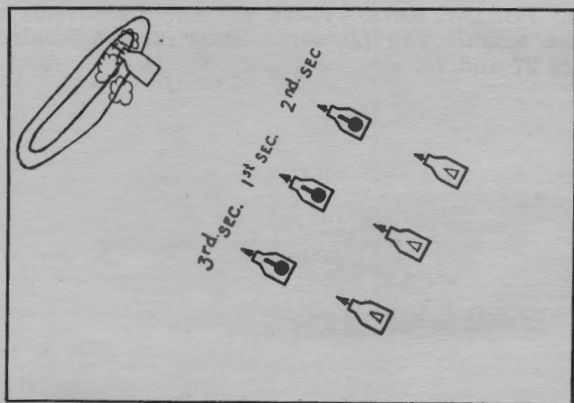
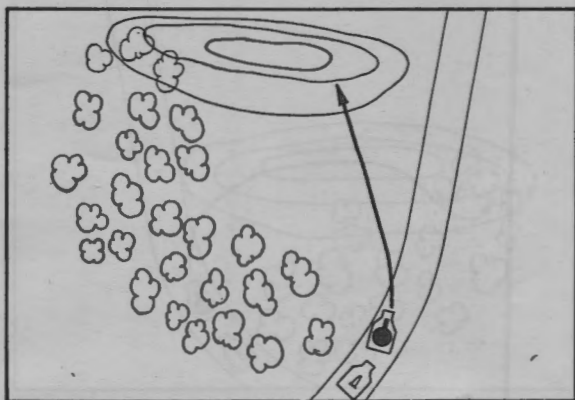
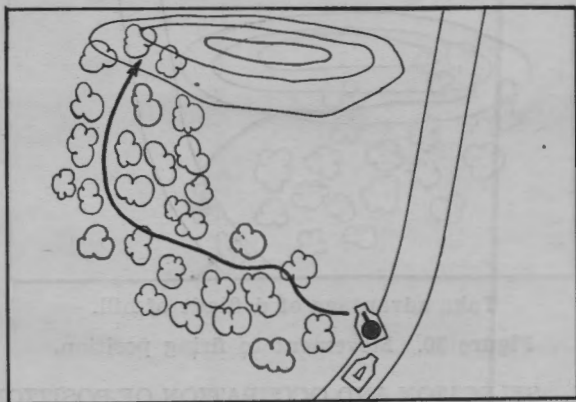


Figure 28. March formation. Deployed.

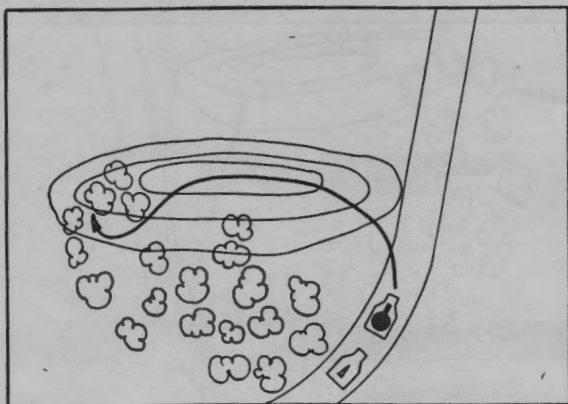


Don't move across open country to firing positions.

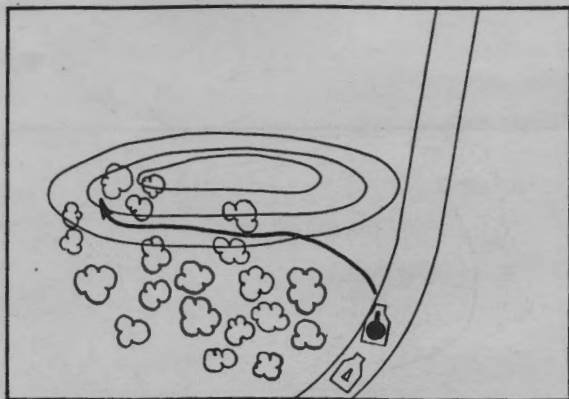


Take advantage of concealment to move into position.

Figure 29. Movement to firing position.



Do not move to firing line along crest.



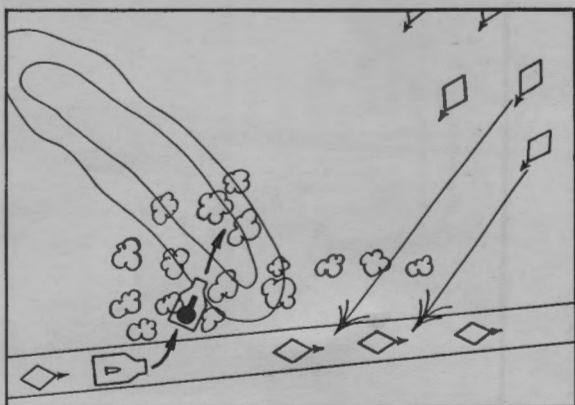
Take advantage of defilade of hill.

Figure 30. Movement to firing position.

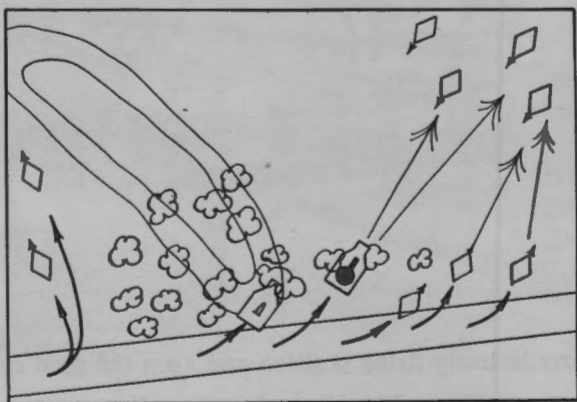
21. SELECTION AND OCCUPATION OF POSITION.—

a. Firing positions are divided into three classes.

(1) **Hasty**—The closest available position from which fire can be delivered immediately.

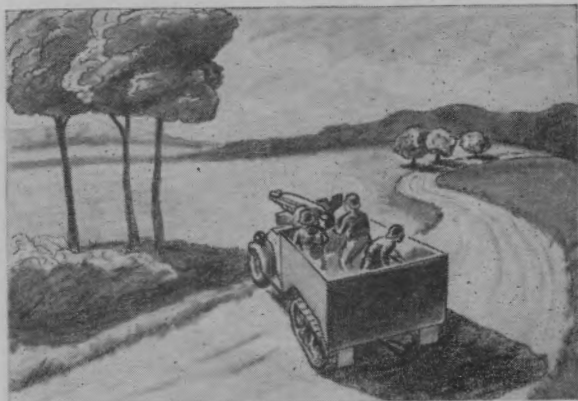


Do not wait for orders if enemy launches surprise attack.

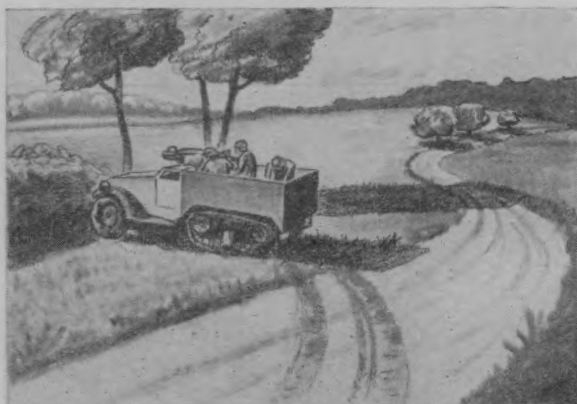


Move at once to nearest position and open fire.

Figure 31. Hasty firing position.



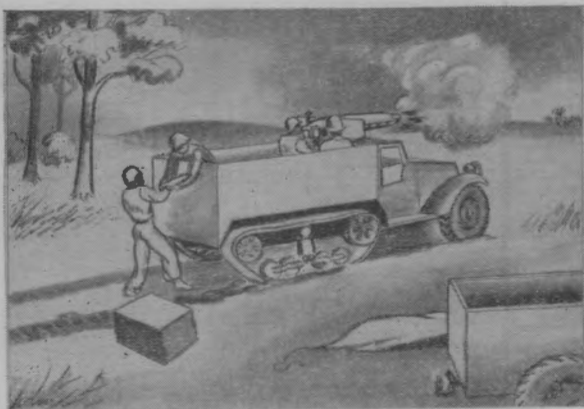
In enemy surprise attack, do not open fire fight on road.



Move to hasty firing position and keep the road clear.

Figure 32. Hasty firing position.

(2) **Prepared**—A position reconnoitered in advance camouflage material may be prepared and extra ammunition brought forward. This type of position will be used by assault gun only in the initial assault and in defensive actions.



Do not go into position in the open.



Use defilade and concealment and hasty camouflage.

Figure 33. Prepared firing position.



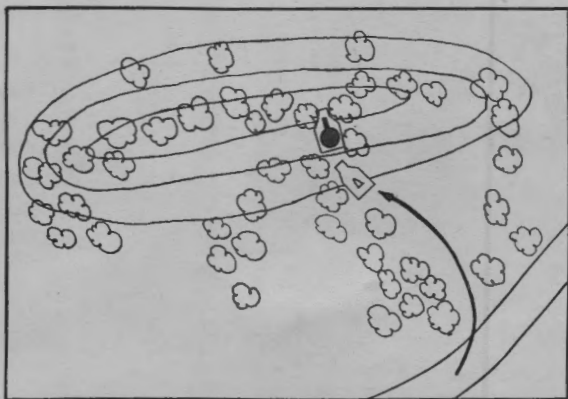
Do not occupy a prepared position which requires extra movement to leave.



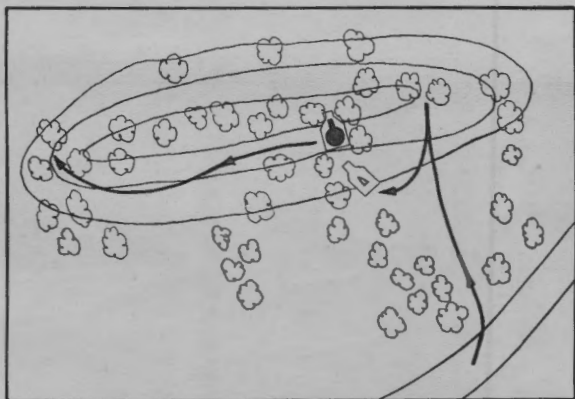
Select position from which move can be made to front or rear without delay.

Figure 34. Prepared firing position

(3) **Alternate**—A position located near a prepared position. To be occupied if prepared position is discovered or to cover another field of fire.



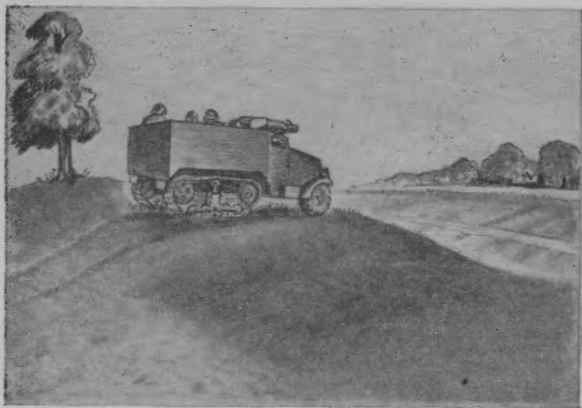
Do not select only one firing position.



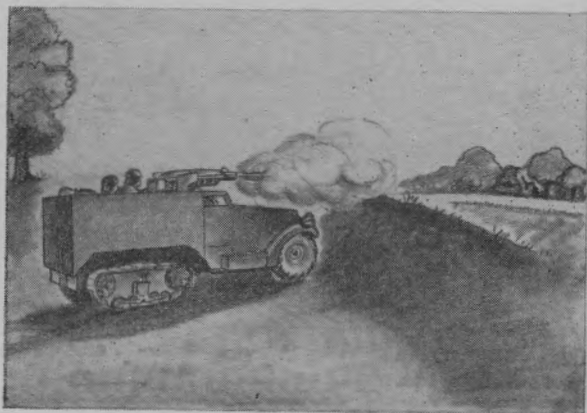
Select one or more alternate firing positions. Reconnoiter routes to them and mark.

Figure 35.

b. In selecting and occupying positions, whether they are hasty, prepared or alternate, the following fundamentals must always be observed.

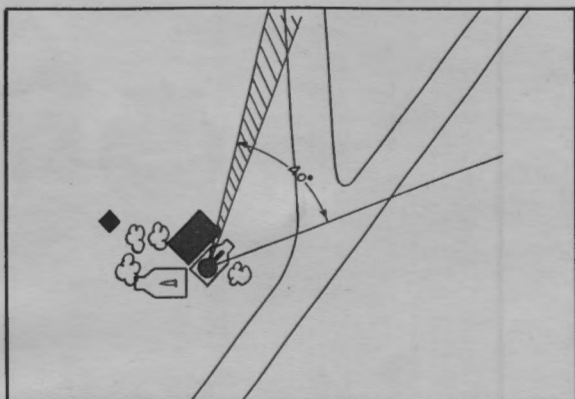


Do not occupy firing position on crest of hill.

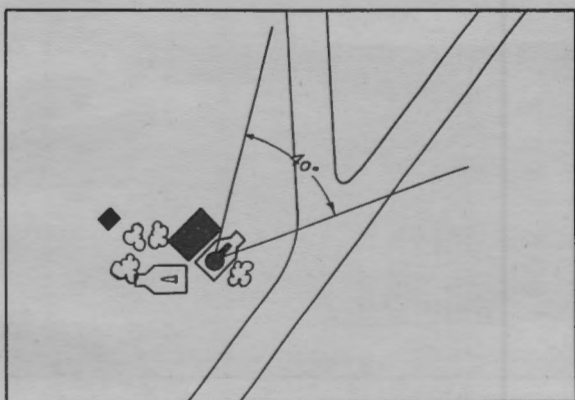


Select position behind crest so that chassis of vehicle is defiladed. Only gun is exposed.

Figure 36. Chassis defilade.



Do not put vehicle in position where part of arc of fire is masked.



Place vehicle so that all available traverse can be used.

Figure 37.



Avoid open places where vehicle is silhouetted.

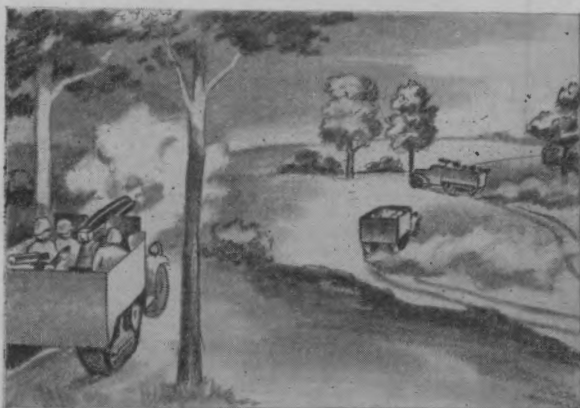


Select position where vehicle blends with rock or brush.

Figure 38. Vehicle silhouetted.



Do not occupy position and do nothing.



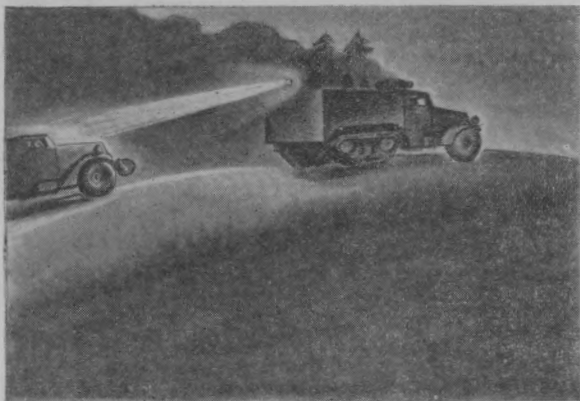
Support with fire the movement of another gun section into position.

Figure 39. Supporting another Gun Section.

22. MOVEMENT AT NIGHT.—Movement at night without lights requires a high degree of training and discipline. The platoon leader is responsible for instructing his vehicle commanders in the following:—

a. Route of march, distance and direction to be maintained, speed, nature of road surface (if known).

b. The limits on the use of lights; are the tactical lights to be used full or dim? Are masked flashlights permitted?



Do not flash an unshielded light. Be particularly careful not to flash light in the eyes of the vehicle driver.



Keep shaded light down, except when giving signals.

Figure 40. Use of unshielded light.



Do not lose distance, then speed to catch up.



Keep closed up to prescribed distance and hold a steady pace.

Figure 41. Keep distance.

CHAPTER 4

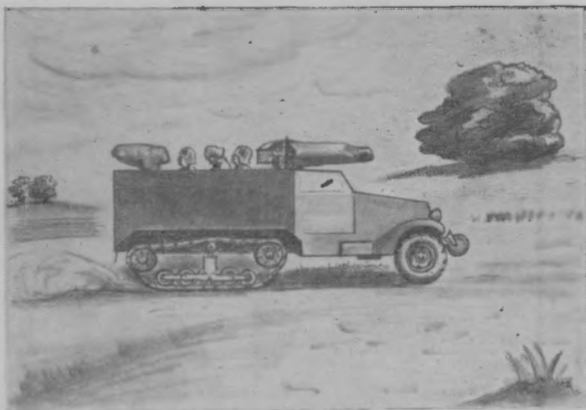
SECURITY

23. **GENERAL.**—Security is the responsibility of command. It is divided into two parts.

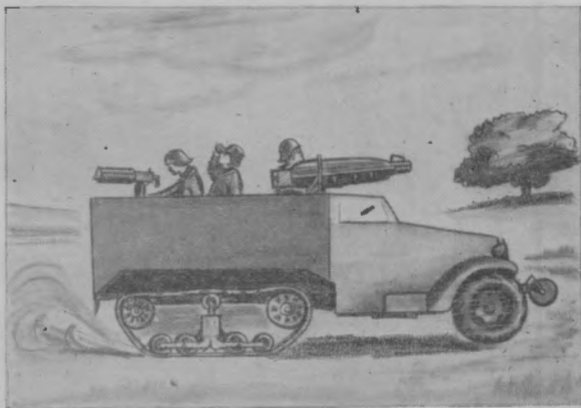
a. The local security of the section and platoon.

b. The security of a unit which includes such measures as advance or flank guards, and outposts. This chapter deals only with local security. The employment of the assault gun section and platoon on security missions will be found in Training Guides on the Reconnaissance Platoon, Tank Battalion, Armored Infantry Battalion.

24. **SECURITY.**—The ammunition carrier provides local security for the assault gun on the march, Figure 42; at the halt, Figure 43; in firing position, Figures 44 and 45; and in assembly areas, Figure 46.



Do not march with gun covers on and guns locked in position.



Remove gun covers. Set guns for probable direction of fire and clamp lightly. Keep air sentinel alert.

Figure 42. Security on march.

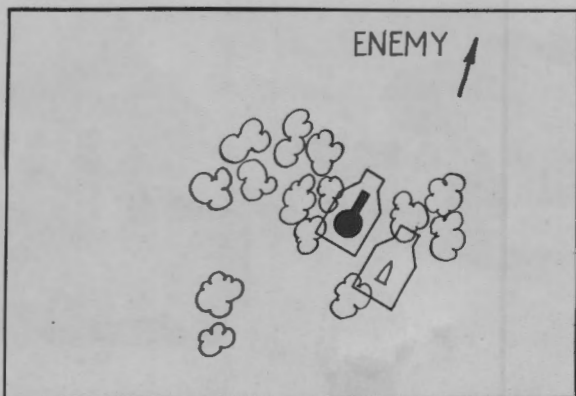


Do not halt and do nothing.

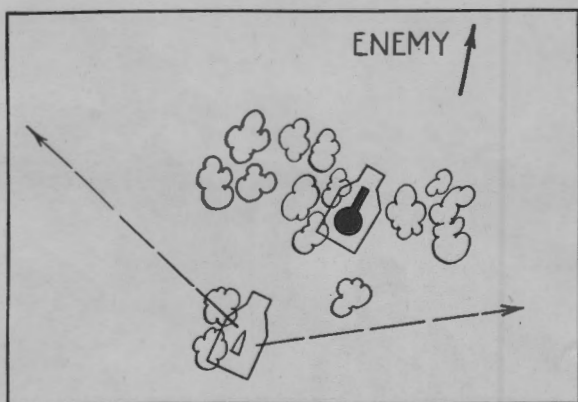


Keep air and ground sentinel alert. Keep crew close to car.

Figure 43. Security at halt.

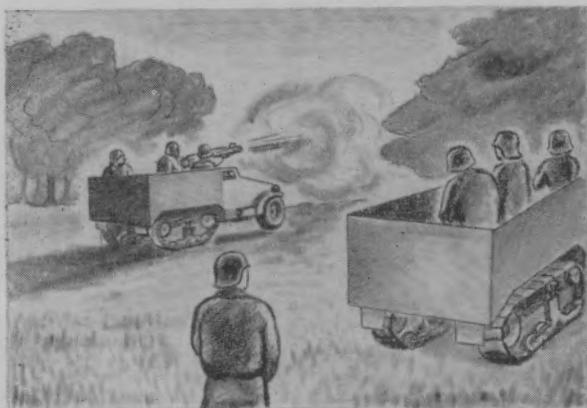


Do not place ammunition carrier too close to gun car.



Place the ammunition carrier so that it can protect the flank of the gun from ground attack.

Figure 44. Security in firing position.

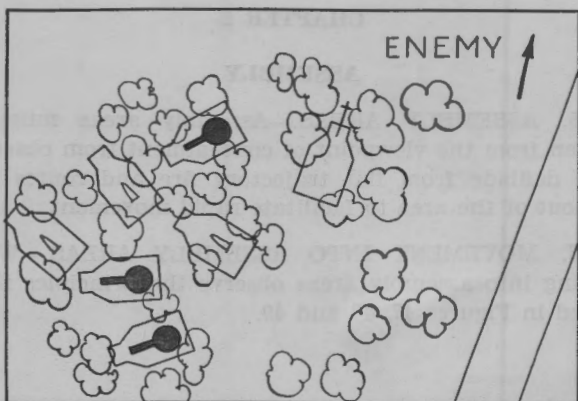


Do not allow members of crew to watch target.

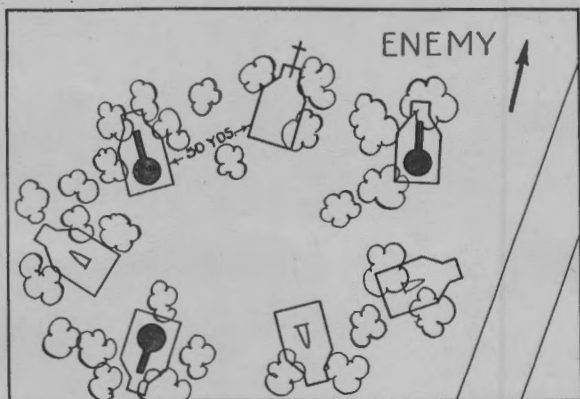


Detail the driver of the ammunition carrier as air and ground sentinel to watch flank and rear.

Figure 45. Security in firing position.



Do not bunch vehicles in assembly area.



Place the vehicles in a position from which they can go into action without delay.

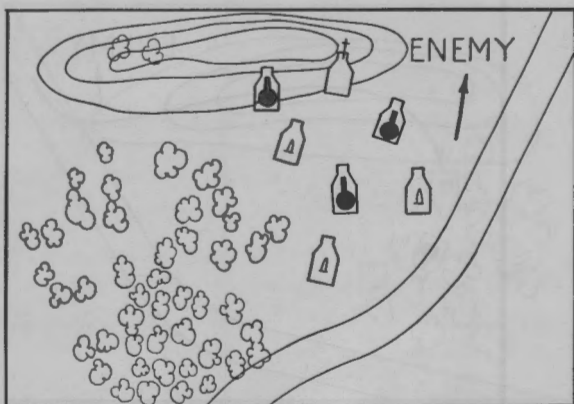
Figure 46. Security in assembly area.

CHAPTER 5

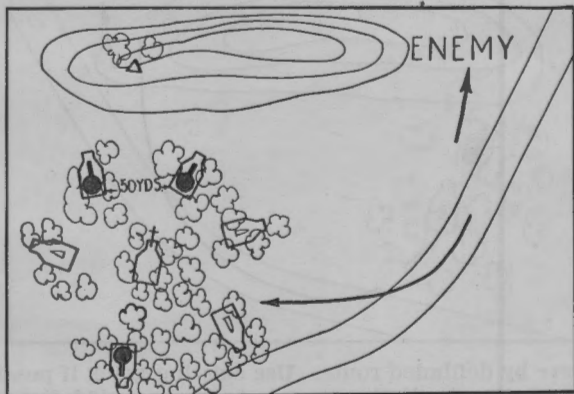
ASSEMBLY

25. **ASSEMBLY AREAS.**—Assembly areas must be chosen from the viewpoint of concealment from observation, defilade from flat trajectory fire and routes into and out of the area to facilitate rapid movement.

26. **MOVEMENT INTO ASSEMBLY AREAS.**—When moving into assembly areas observe the principles illustrated in Figures 47, 48 and 49.

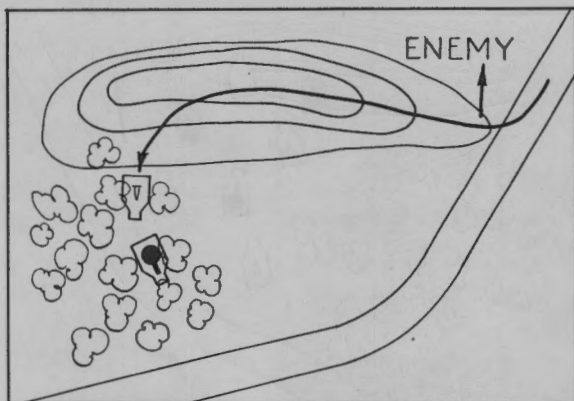


Do not assemble vehicles in open.

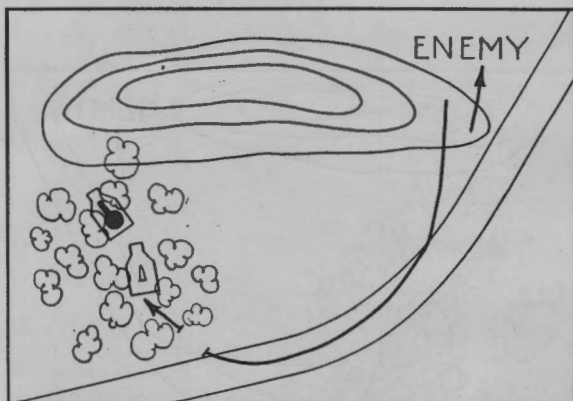


Take advantage of nearby concealment.

Figure 47. Movement to assembly area.

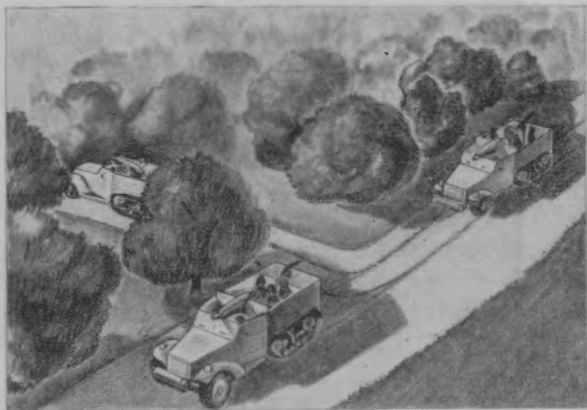


Do not move vehicles to assembly along skyline.

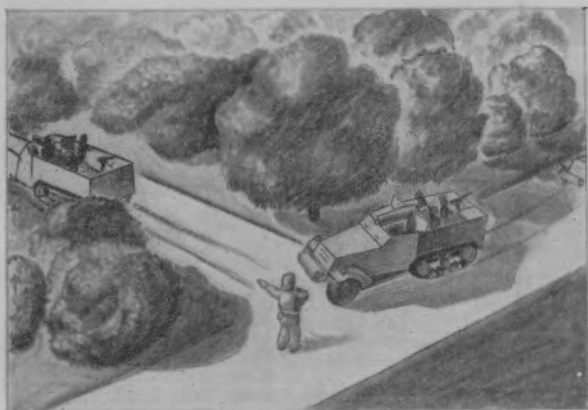


Move by defiladed route. Use existing track if possible. Obliterate tracks if the area is to be occupied for some time.

Figure 48. Movement to assembly area.



Do not move into assembly area and hope other vehicles will follow.



Post guide from leading vehicle to insure that remainder of platoon follows.

Figure 49. Posting Guides.

27. ACTION OF SECTION LEADER.—Immediately upon arrival in an assembly area, the section leader checks the following points: (Figure 50.)

Presence of all vehicles. If any are missing, he inquires where they went.

Presence of all men. Notes number missing and reorganizes personnel available to him so that all gun cars can be properly manned.

Has car commanders check amount of fuel on hand and report to him amount needed for a complete refill.

Has ammunition corporal check ammunition on hand and report to him type and amount needed for replacement.

Turns above information over to platoon leader.



Figure 50. Action of section leader.

28. ACTION OF PLATOON LEADER.—The platoon leader consolidates information regarding his platoon and gives pencil note to his immediate commanding officer.

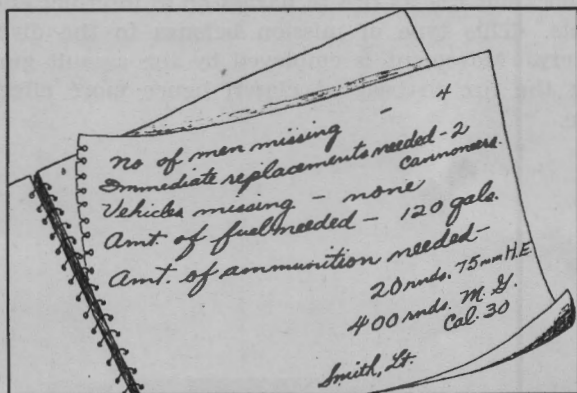
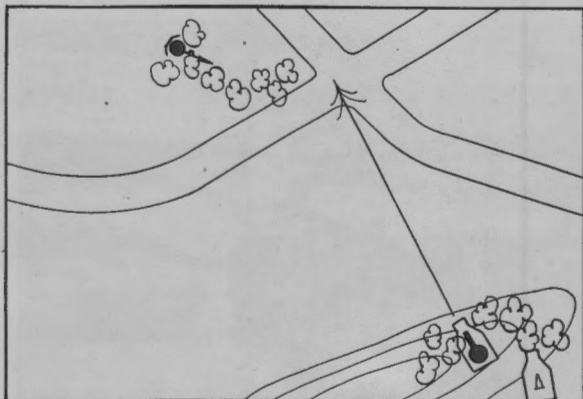


Figure 51. Sample report of platoon leader.

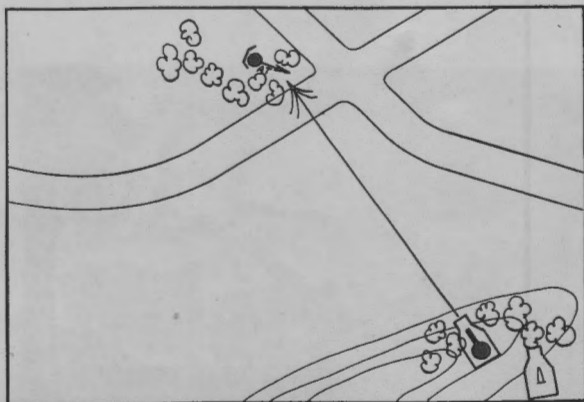
CHAPTER 6

ATTACK

29. GENERAL.—The assault gun attacks by fire. The fire missions of assault gun are **DIRECT FIRE** from **CLOSE RANGE** against **POINT TARGETS** (stationary and moving) for **SHORT** periods of time. The assault gun does not use its fire to harass or to interdict enemy targets. This type of mission belongs to the division artillery. Movement is employed by the assault gun to bring the fire to bear at closer, hence more effective range.



Do not fire at general areas to harass or interdict the enemy.



Fire at well defined targets to destroy them.

Figure 52.

30. SURPRISE.—Surprise is a prerequisite to success in battle. The assault gun secures surprise by the following means:—

a. Careful movement by concealed routes into position and strict attention to camouflage to avoid detection before fire is opened.



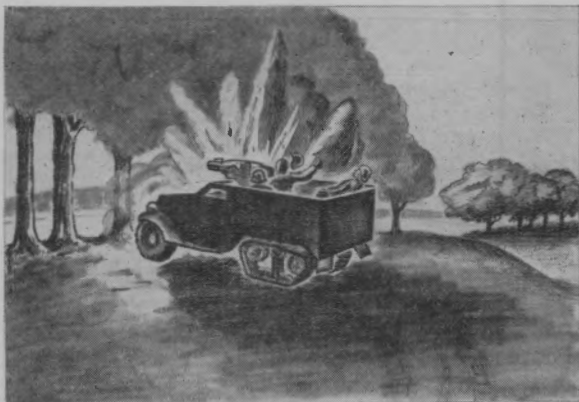
Do not reveal your intention by careless movement or inaccurate fire.



Gain surprise by moving quietly into position. Open accurate and rapid fire.

Figure 53. Surprise fire.

b. Frequent lateral displacement to deceive the enemy as to the direction from which the fire comes.



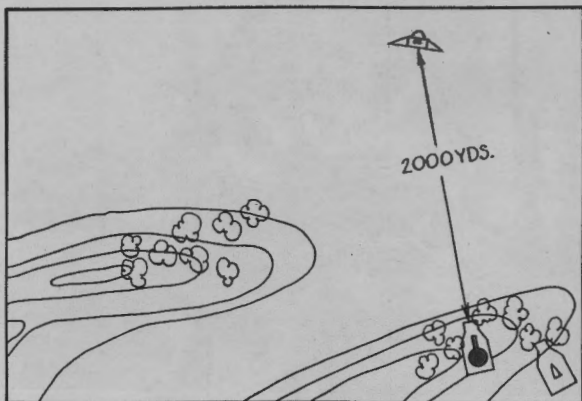
Do not wait until enemy locates firing position.



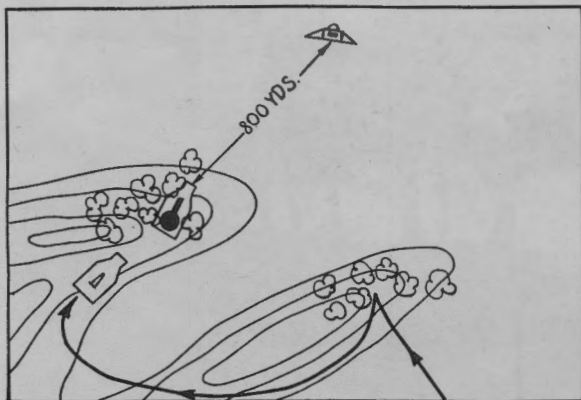
Concentrate your fire on the decisive target then displace laterally and open fire again.

Figure 54. Lateral displacement.

c. Accurate range determination and aggressive forward displacement to insure maximum fire effect.



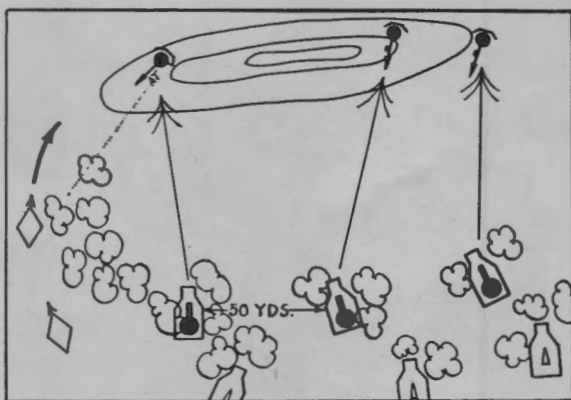
Do not open fire from this position. Range too great.



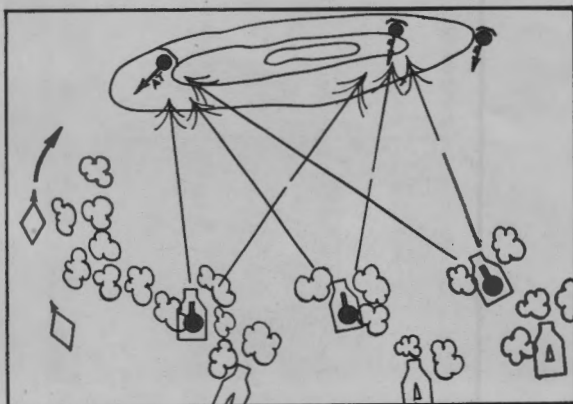
Move to more advanced position to shorten range and increase accuracy of fire. Reducing the range enables the section leader to estimate it more accurately.

Figure 55.

d. When the platoon is operating as a unit, concentrate fire on the target selected rather than disperse it.



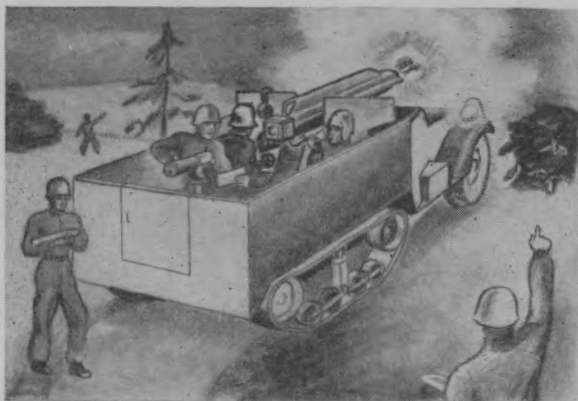
When platoon is operating as a unit do not disperse the fire.



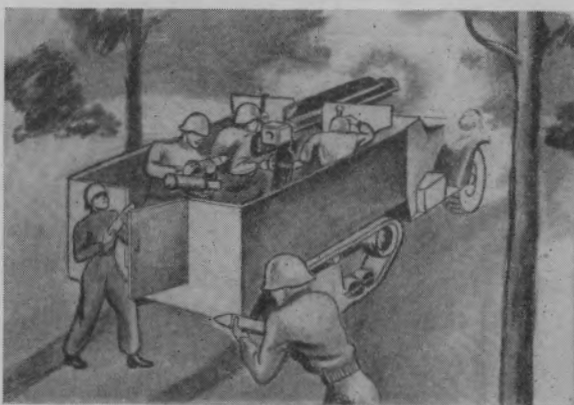
Concentrate on most dangerous target then shift quickly and accurately on next target.

Figure 56.

e. Rapidity of fire as soon as gun is registered on the target.



Do not fire leisurely. This wastes ammunition.



Once the target is determined, open fire as rapidly as the gun can be loaded and laid. Fire only what is necessary to neutralize target.

Figure 57.

31. **FIRE MISSION.**—Fire missions are divided into three classes, (1) principal, (2) secondary, and (3) emergency. These terms are defined as follows:—

a. Principal fire mission.—Those enemy targets which must be destroyed to insure the success of the supported unit.

b. Secondary fire mission.—Those enemy targets which are engaged only after the principal targets have been destroyed.

c. Emergency fire mission.—Any enemy armored fighting vehicle which comes within proper range. They must be engaged by fire until destroyed or until they are out of range. The principal and secondary fire missions depend upon whether it is the reconnaissance, tank or infantry assault gun. The emergency mission is constant regardless of other assignment. Figures 58, 59, and 60 illustrate these missions.

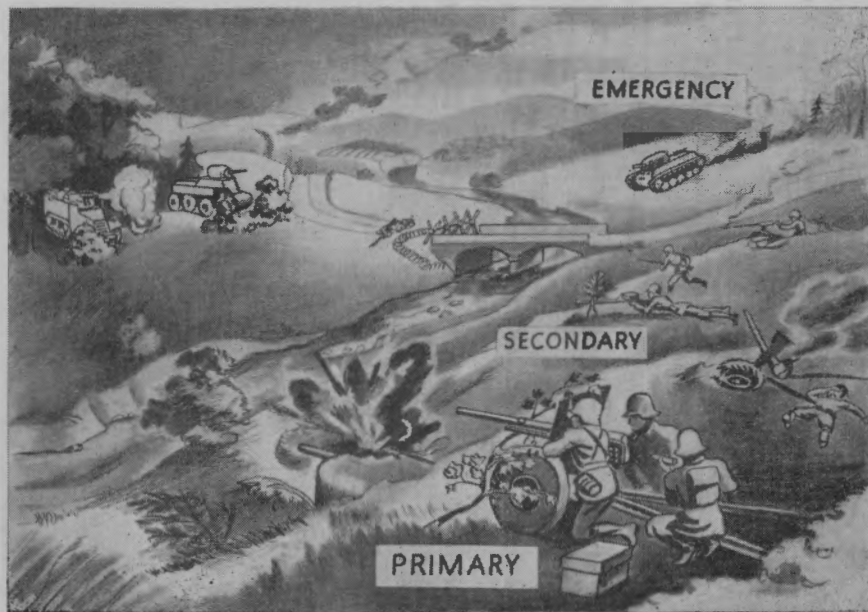


Figure 58. Fire missions of the Reconnaissance Gun Section.

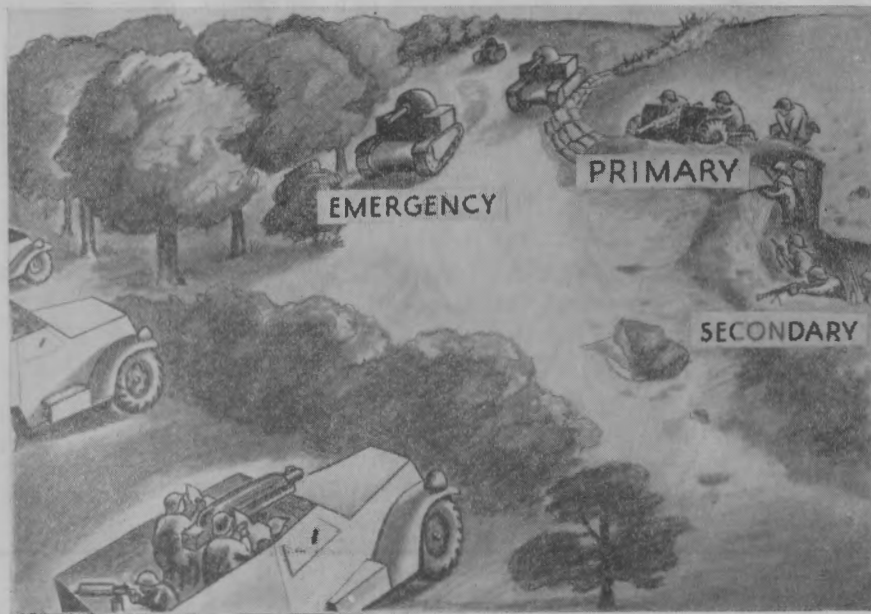


Figure 59. Fire mission of the Tank Gun Platoon.

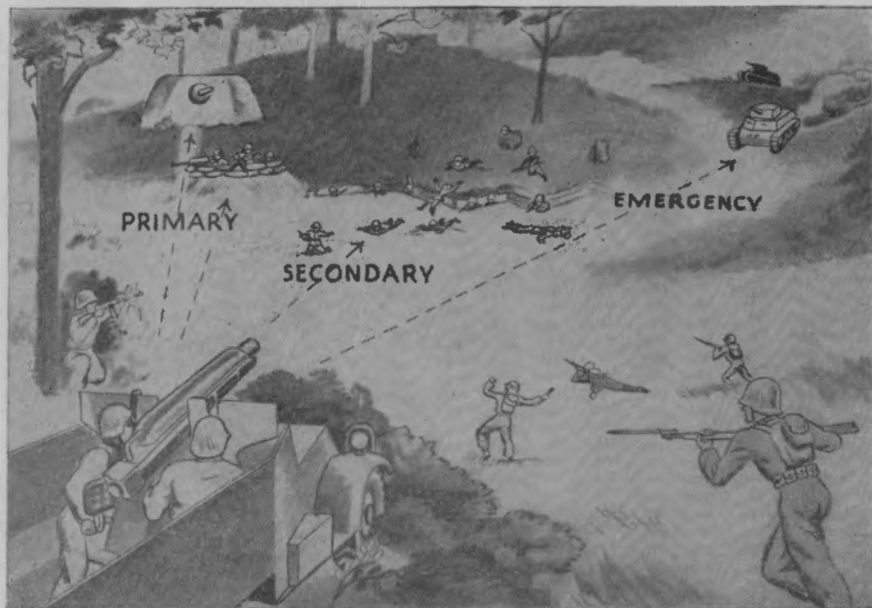
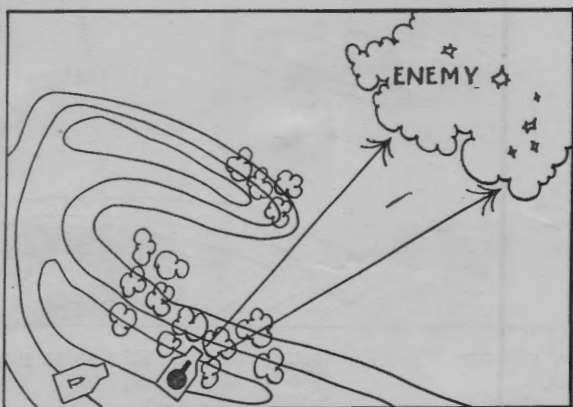
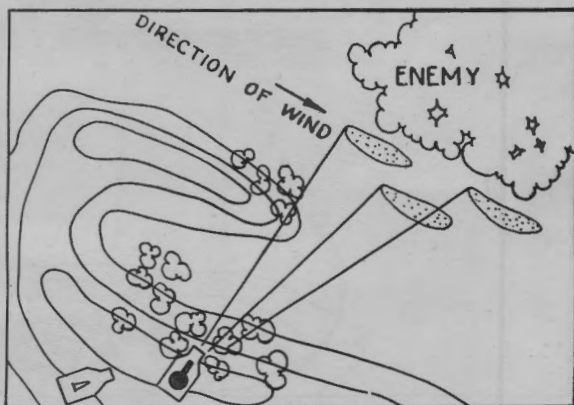


Figure 60. Fire mission of the Armored Infantry Gun Platoon.

32. SELECTION OF AMMUNITION.—The general principles governing the selection of ammunition are illustrated below.

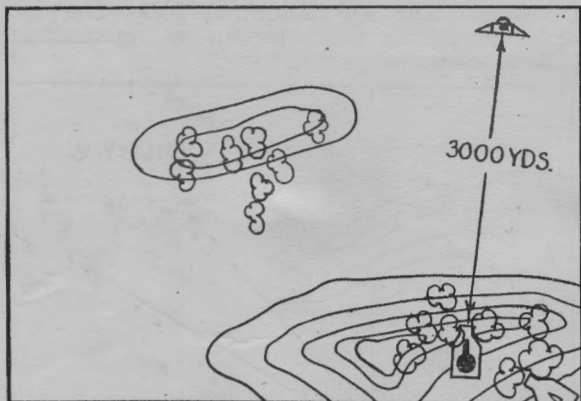


Do not use HE against targets not definitely located.

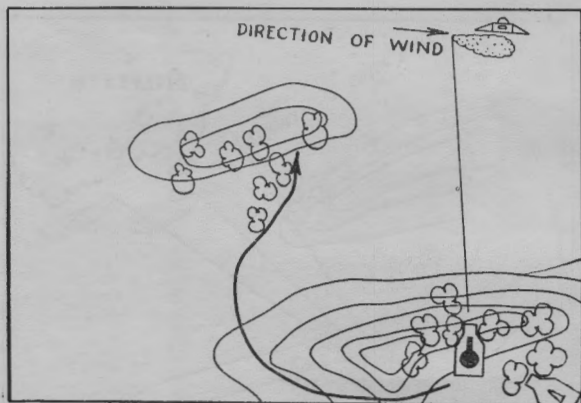


Use smoke to blind the enemy position while maneuver element seeks it out and destroys it.

Figure 61.



Do not use HE at extreme ranges. It wastes ammunition.



Use smoke to blind enemy observation. Under cover of smoke, displace forward to effective range.

Figure 62.



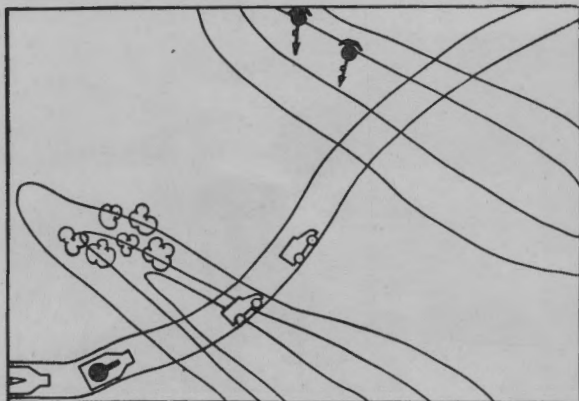
Do not shift to alternate position under enemy observation.



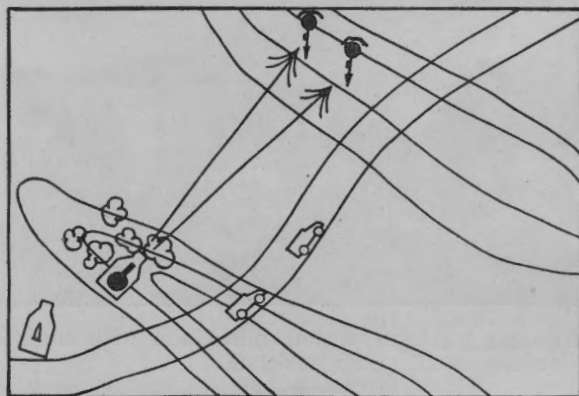
If enemy has observation, blind him with smoke before moving to alternate position.

Figure 63.

33. RECONNAISSANCE ASSAULT GUN.—The figures below illustrate battle procedure of the assault gun section of the reconnaissance platoon.

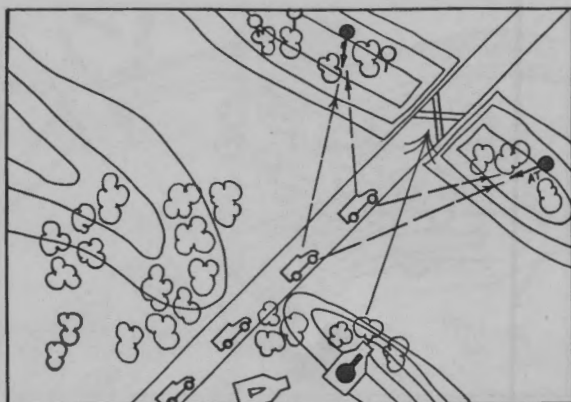


Do not leave assault gun idle while armored reconnaissance cars advance in open.

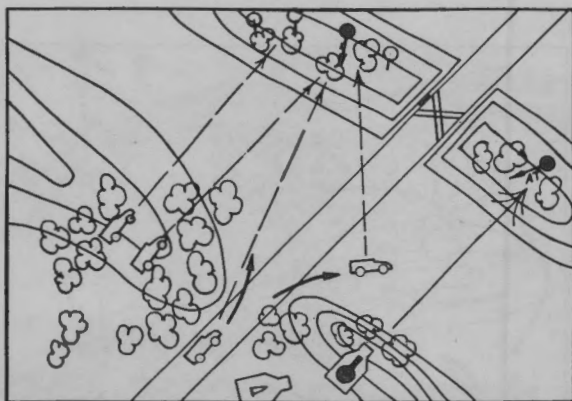


Put gun in position to support advance by fire.

Figure 64

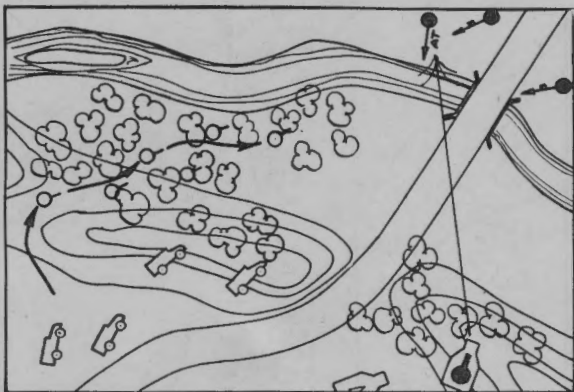


Do not shoot at the barricade or the machine gun.

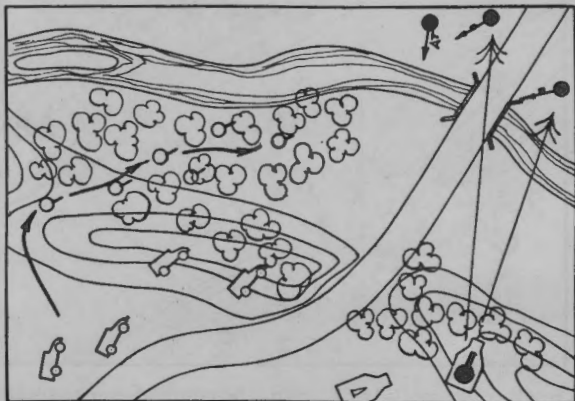


Knock out anti-tank gun. Armored reconnaissance cars fire and maneuver to knock out machine gun and defending riflemen.

Figure 65

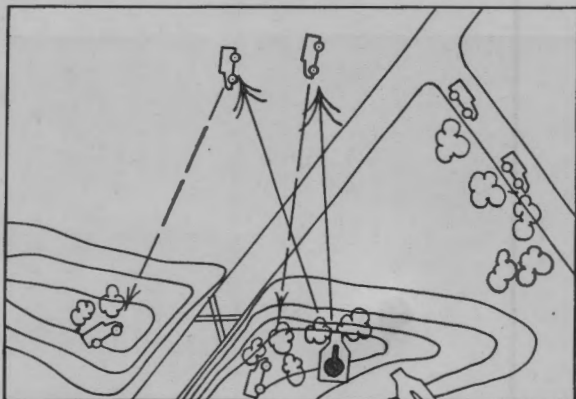


Don't shoot at anti-tank gun in support of dismounted attack.

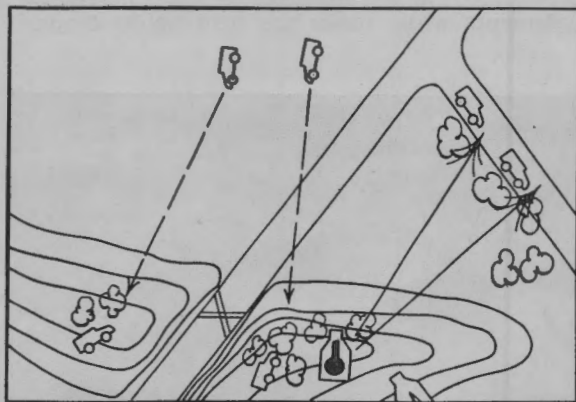


Knock out the machine guns. They are the threat to the dismounted troops. Avoid hitting bridge.

Figure 66



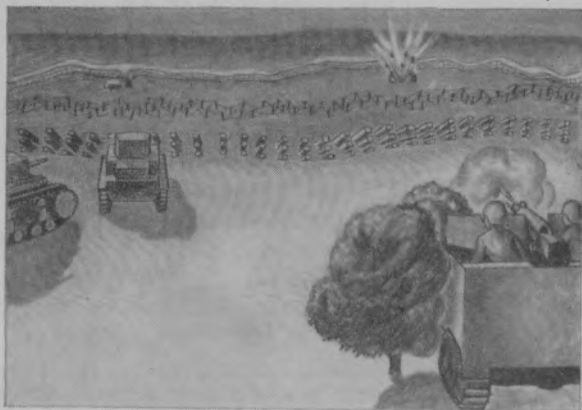
Do not fire at enemy reconnaissance cars attacking defended road block.



Use fire to intercept enemy cars trying to slip past road block.

Figure 67. Support of Reconnaissance Platoon on counter-reconnaissance mission.

34. TANK ASSAULT GUN.—The figures below illustrate battle procedure of the tank assault gun section and platoon.



Do not shoot at enemy machine guns defending wire entanglements while tanks are held up by traps.



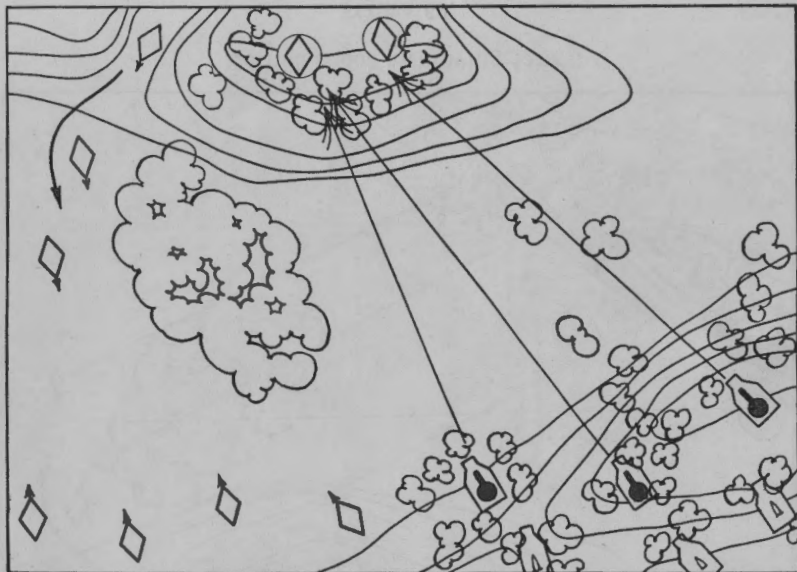
Shoot at tank traps, breaking down the walls sufficiently to permit the tanks to cross.

Figure 68.



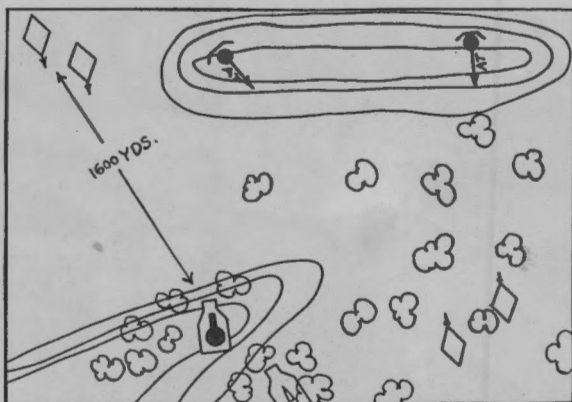
Do not shoot at moving tanks.

Figure 69.

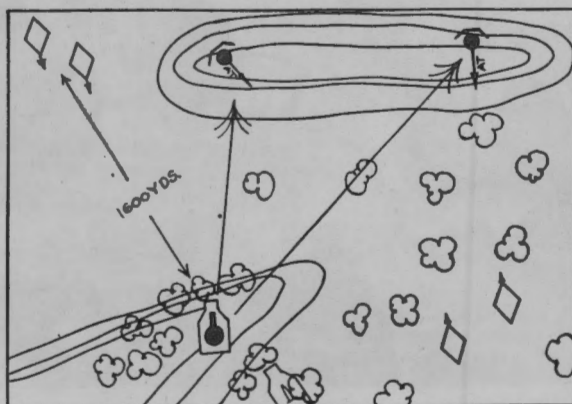


Shoot at stationary enemy tanks. They are the greatest threat.

Figure 69

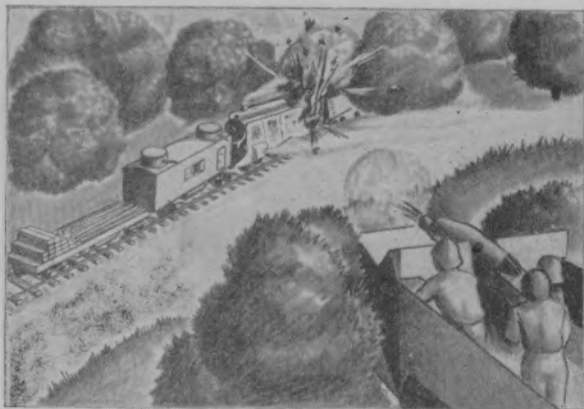


Do not shoot at enemy tanks.

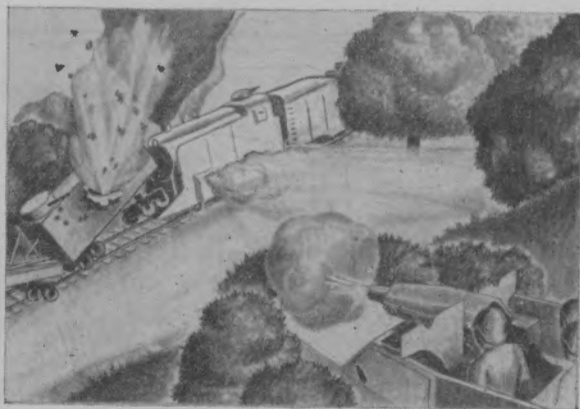


Destroy enemy anti-tank guns.

Figure 70.

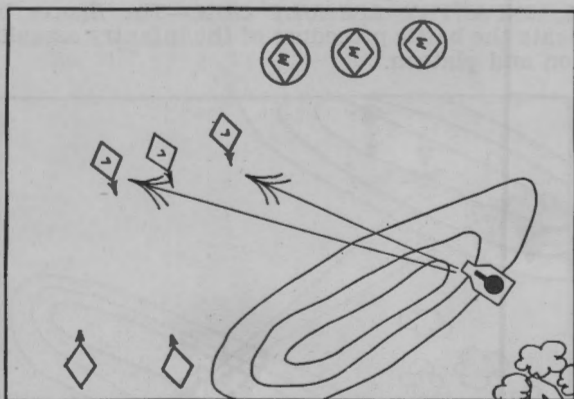


Do not shoot at locomotive of armored train.

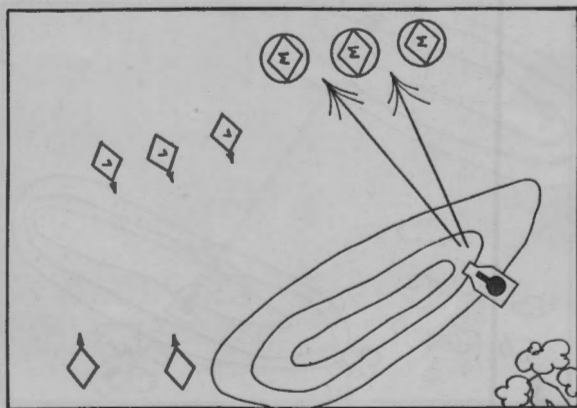


Shoot at gun cars. A hit on the trucks will stop the train. Then use fire to destroy gun cars.

Figure 71.



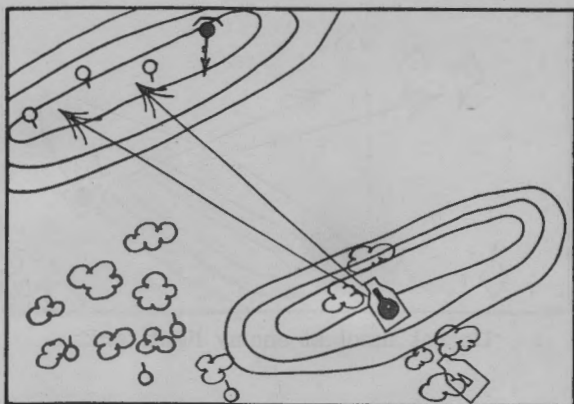
Do not shoot at enemy light tanks.



Destroy enemy medium tanks.

Figure 72.

35. INFANTRY ASSAULT GUN.—The figures below illustrate the battle procedure of the infantry assault gun section and platoon.

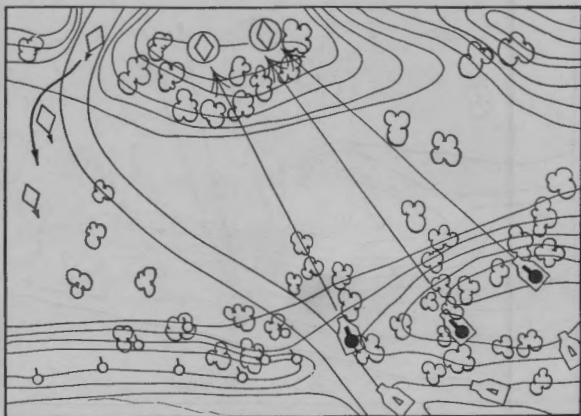


Do not shoot at deployed enemy riflemen.

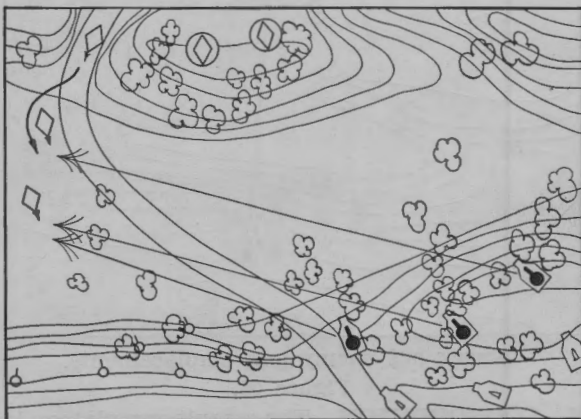


Destroy enemy machine gun nests.

Figure 73.

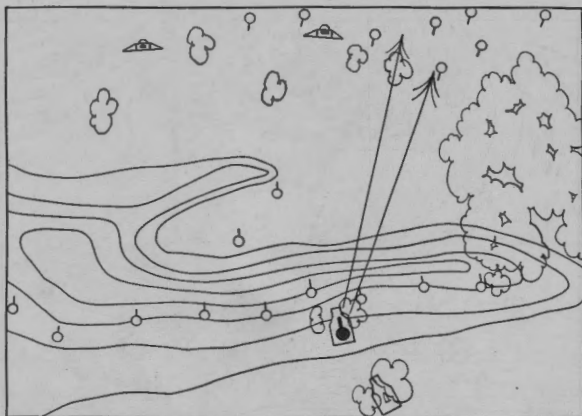


Do not shoot at stationary tanks.

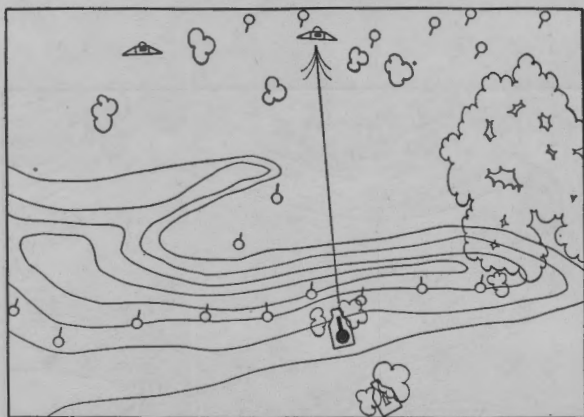


Shoot at enemy tanks closing with friendly infantry. They are the greatest threat.

Figure 74. Supporting infantry attacked by tanks.



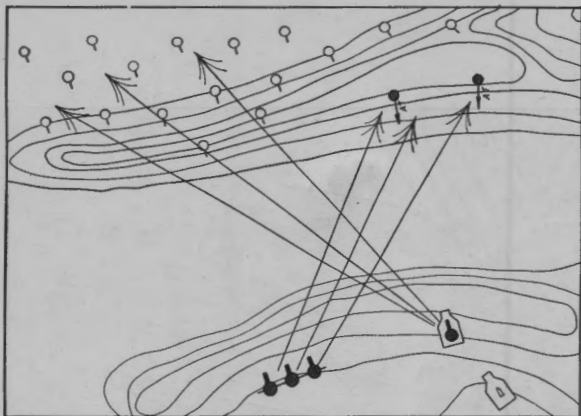
Don't shoot at infantry or light machine guns in open.



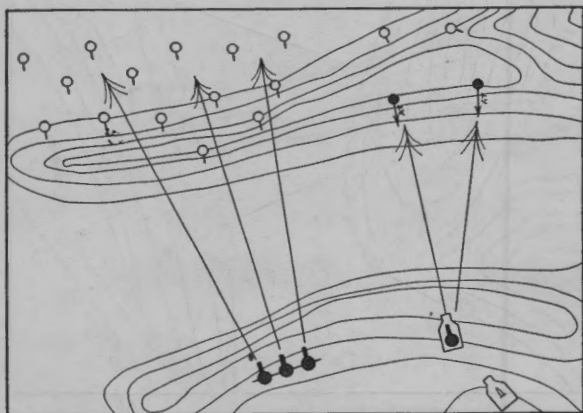
Knock out enemy gun emplacements.

Figure 75.

36. COORDINATION.—The assault gun platoon leader must constantly bear in mind the fact that his unit is a member of a team. Figures 76 and 77 illustrate, in schematic form, the varying firing missions of assault guns, mortars and machine guns.



Lack of coordination causes wrong target to be taken under fire. Mortars shooting at enemy of forward slope and guns shooting over slope.



Coordination gives effective fire. Mortars shoot at enemy behind hill. Guns shoot at enemy on forward slope.

Figure 76.

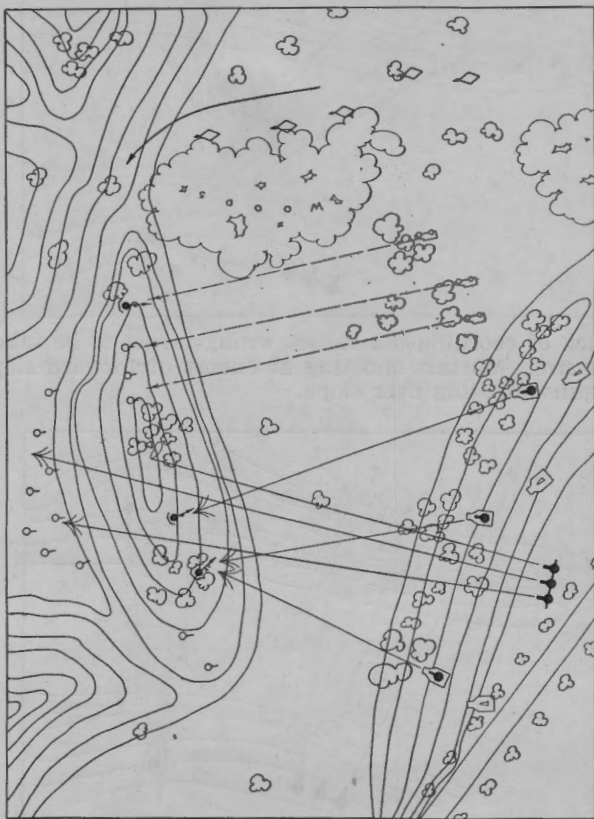


Figure 77. Fire coordination.

CHAPTER 7

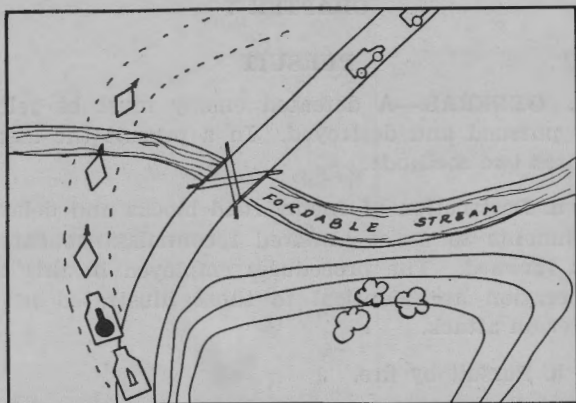
PURSUIT

37. **GENERAL.**—A defeated enemy must be relentlessly pursued and destroyed. In a pursuit the assault gun uses two methods:

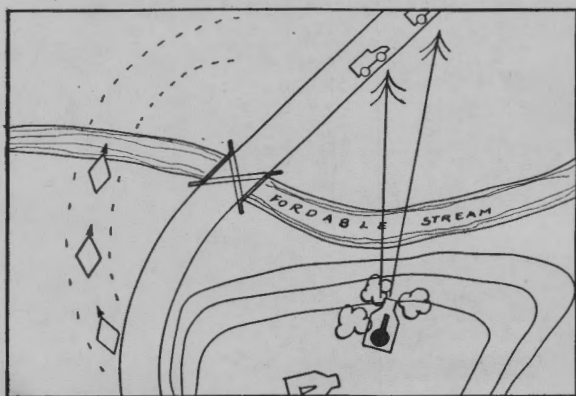
a. Destruction of enemy road blocks and delaying detachments to assist armored reconnaissance cars or tanks forward. The procedures employed in this type of operation are identical to those illustrated in the chapter on attack.

b. Pursuit by fire.

38. **PURSUIT BY FIRE.**—Situations arise where obstacles may temporarily halt the pursuing force. The assault gun must not be allowed to remain idle. It must continue the pursuit by fire as long as the enemy is within range.



Do not put assault gun in rear of column effecting crossing.



Bring assault gun to forward position where it can employ its fire to destroy withdrawing enemy forces.

Figure 78.

CHAPTER 8**DEFENSE**

39. **GENERAL.**—Defense presupposes the determination to hold a position at all costs. But from the viewpoint of the assault gun leader, it is not static in the sense that the gun remains constantly in one position or expends its fire power on a single cross-road or patch of woods. The fire missions of assault gun on defensive missions are the same as those listed for attack.

40. **DEFENSE POSITIONS.**—a. In the defense the careful selection of principal and alternate positions, use of concealment and defilade is of great importance. If the position is to be occupied for any length of time, slit trenches must be dug.

b. One type of position not mentioned in Chapter 3, Marches and Positions, is the dug-in emplacement. It will be used only in very flat terrain where no concealment or defilade is available.

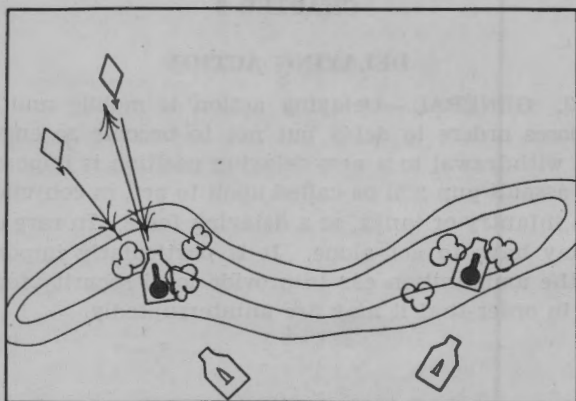


Figure 79. Entrenched assault gun position.

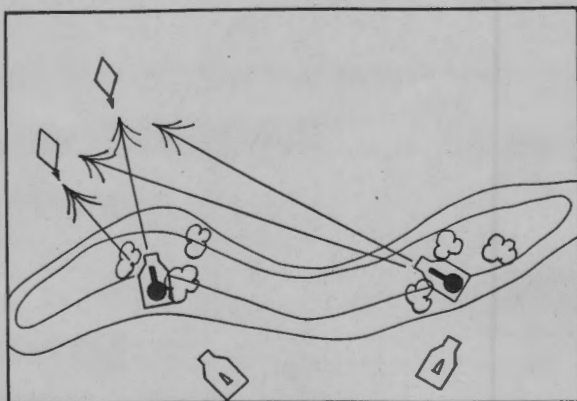
This type of emplacement has two principal disadvantages. They are:

- a. Length of time to dig pit.
- b. Difficulty of preparing alternate positions.

41. COOPERATION IN DEFENSE.—The enemy will seek to blind and disrupt all means of communication in a defensive position. The platoon leader and to a greater extent the section leader must be prepared to act on his own initiative.



Do not remain idle while nearby section is overrun.



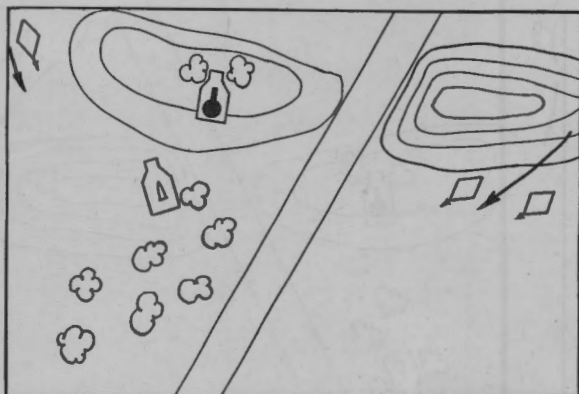
If enemy is not attacking your position, use your fire in support of other sectors. If communication with leader is impossible, move to alternative position on initiative.

Figure 80.

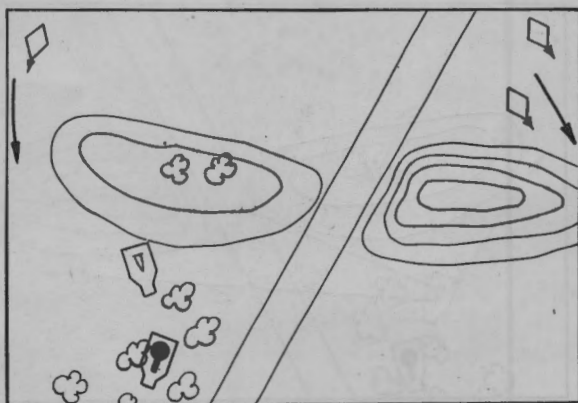
CHAPTER 9

DELAYING ACTION

42. **GENERAL.**—Delaying action is mobile and presupposes orders to delay but not to become so engaged that withdrawal to a new delaying position is impossible. The assault gun will be called upon to act, in conjunction with infantry or tanks, as a delaying force. In rare cases it may have to act alone. It is particularly important for the ammunition car to provide local security for the gun in order that it may fire uninterruptedly.

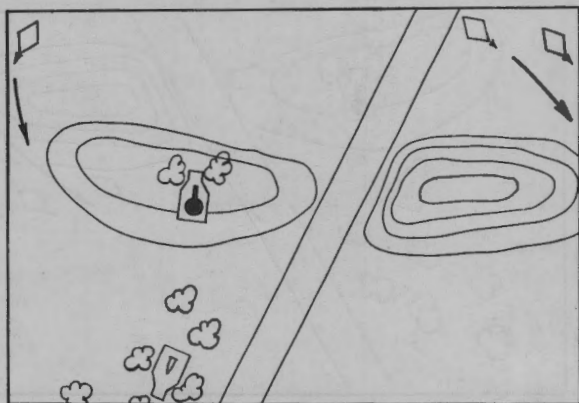


In withdrawal, do not become trapped.

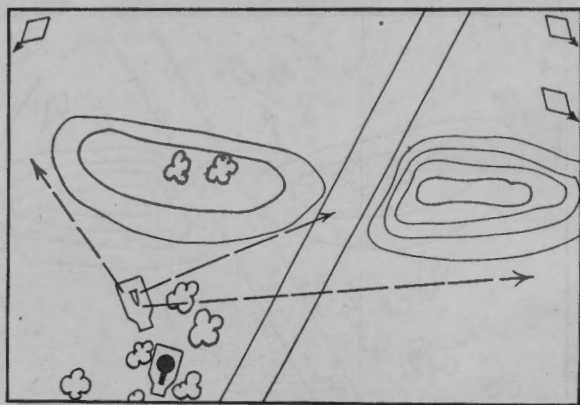


Move to next delaying position before enemy cuts route.

Figure 81.

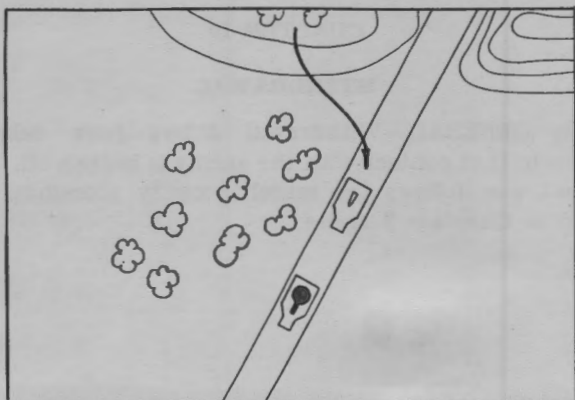


Do not send ammunition car back to second delaying position ahead of gun.

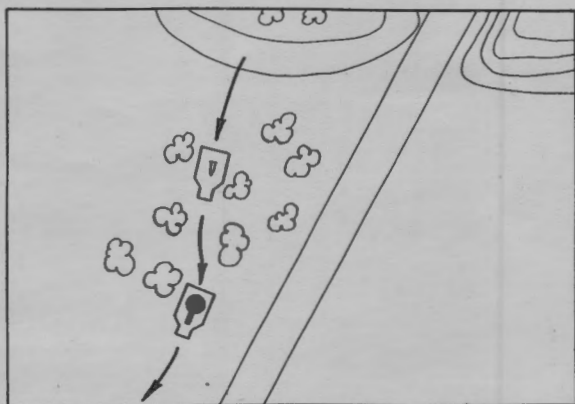


Send gun car back first. Use ammunition car, with machine guns mounted to rear, to provide protective fire.

Figure 82.



Do not send vehicles back along road subject to interdiction by artillery.



Send vehicles back by concealed routes if available. If concealed routes are not available, send car across open at maximum speed.

Figure 83.

43. FIRE MISSIONS.—The principal, secondary and emergency fire missions of assault gun in a delaying action are the same as for attack.

CHAPTER 10**WITHDRAWAL**

44. GENERAL.—Withdrawal differs from delaying action in that contact with the enemy is broken off. The assault gun follows the march security procedure laid down in Chapters 3 and 4.