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LANDING FORCE MANUAL

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LANDING-FORCE MANUAL

UNITED STATES NAVY

1938



CHAPTER 1

INTRODUCTION

(Reprinted 1941, with all changes up to and including No. 5)



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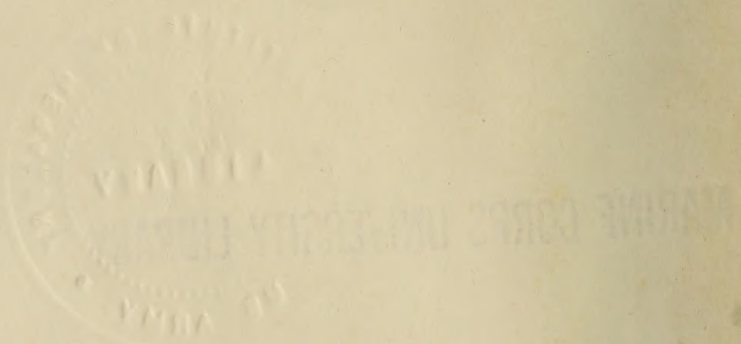
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DEPARTMENT OF THE NAVY,
OFFICE OF THE SECRETARY,
Washington, 17 July, 1938.

The Landing-Force Manual, United States Navy, 1938, is approved and herewith published in nineteen chapters for the information and guidance of the United States Naval Service.

These instructions supersede all others of a similar nature and will be strictly observed.

CLAUDE A. SWANSON.



PREFACE

The Landing-Force Manual is published in nineteen chapters to facilitate changes when required, and to provide for the issue of parts to organizations not requiring the whole. Chapter 1 should be given general distribution as it contains general rules for close-order drill. Chapter 5 should be issued to all organizations provided with hand drawn carts for the transportation of equipment.

The principal changes in this edition of the Landing-Force Manual are as follows:

CHAPTER 1

(1) The scope of the Landing-Force Manual does not include major military operations.

(2) The titles applied to petty officers in the 1927 edition have been replaced by appropriate titles depending upon the duties of the individual, such as *squad leader*, *platoon guide*, *gunner*, etc., instead of *second petty officer*; and *platoon guide*, *platoon petty officer*, *gun captain*, etc., instead of *first petty officer*.

(3) The organization of the platoon has been changed from 6 to 3 squads.

CHAPTER 2

(1) ***Stand at, EASE*** has been designated as ***Parade, REST*** and the old ***Parade, REST*** has been eliminated.

(2) Suspend firing has been eliminated as superfluous.

(3) Rules have been included for the Thompson submachine gun.

(4) The manual of the pistol has been amplified.

(5) Elementary principles for bayonet training replace the advanced course prescribed in the 1927 edition.

(6) Revised 1939 to conform to simplified drill adopted by U. S. Army.

CHAPTER 3

(1) Revised 1939 to conform to simplified drill adopted by U. S. Army.

CHAPTER 4

(1) Drill for headquarters companies has been made to conform with drill for rifle companies.

(2) Revised 1939 to conform to simplified drill adopted by U. S. Army.

PREFACE

CHAPTER 5

- (1) Cart drill has been simplified.
- (2) Revised 1939 to conform to simplified drill adopted by U. S. Army.

CHAPTER 6

- (1) Provides for machine-gun drill. Reference is made to current War Department publications for the training in mechanics, marksmanship, and technique of fire.

CHAPTER 8

- (1) Provides primarily for artillery drill to include putting the gun into action and out of action. The conduct of fire has been omitted, and reference is made to current War Department publications on such related subjects.
- (2) The drill for the 75-mm pack-howitzer has been added.

CHAPTER 9

- (1) Display of clothing on the bunk (Marine Corps) has been added.

CHAPTER 10

- (1) New alternate battalion and regimental parades have been included.
- (2) The position of the reviewing officer, with arms folded, has been eliminated.
- (3) Provision is made for passing in review in mass formation.
- (4) Regulations for funeral ceremonies have been amplified.
- (5) The officers' manual of the sword has been made applicable to enlisted men so armed.

CHAPTER 11

- (1) Revised to provide for the performance of guard duty on board ship as well as ashore.
- (2) The position of officers of the day, with arms folded, has been eliminated.

CHAPTERS 12, 15, 16, AND 17

- (1) Completely revised and simplified.

CHAPTER 14

- (1) The detail of life-saving methods has been omitted. Reference should be made to the current American Red Cross publication on that subject.

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CHAPTER 18

- (1) Physical drill without arms has been added.

The Navy Department acknowledges the courtesy of the War Department and Marine Corps Schools for authorizing the use of various publications in the preparation of this manual.

FOREWORD

The Landing-Force Manual, U. S. Navy, 1938, is published in nineteen chapters as follows:

CHAPTER 1. INTRODUCTION.

SECTION I. Scope of manual.

II. Glossary.

III. General rules for close-order drill.

IV. Organization of the landing force.

V. Organization of units within a landing force, and command and staff function.

CHAPTER 2. INDIVIDUAL INSTRUCTION WITHOUT ARMS AND WITH ARMS (RIFLE, AUTOMATIC RIFLE, SUBMACHINE GUN, PISTOL, AND BAYONET).

SECTION I. General.

II. Positions.

III. Steps and marchings.

IV. Manual of arms, the rifle.

V. Loadings and firings, the rifle.

VI. The automatic rifle.

VII. The submachine gun.

VIII. Manual of the pistol, dismounted.

IX. The bayonet.

CHAPTER 3. DRILL, THE SQUAD, PLATOON, AND COMPANY.

SECTION I. The squad.

II. The platoon.

III. The company.

IV. Company inspection.

CHAPTER 4. FORMATIONS OF THE BATTALION, REGIMENT, AND BRIGADE.

SECTION I. General.

II. The battalion.

III. The regiment.

IV. The brigade.

V. Battalion and regimental inspection.

CHAPTER 5. CART DRILL.

SECTION I. Introduction.

II. Squad drill.

III. Platoon and company drill.

CHAPTER 6. DRILL, MACHINE GUN, CALIBER .30.

SECTION I. Introduction.

II. Gun drill, the squad.

III. Organization of the machine-gun section, platoon, and company.

IV. Inspection, the company.

V. The Lewis machine gun.

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CHAPTER 7. DRILL, THE SPECIAL-WEAPONS PLATOON (37-MM GUN AND 81-MM MORTAR).

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CHAPTER 8. DRILL, ARTILLERY.

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- II. 3-inch Naval landing-gun platoon.
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CHAPTER 10. CEREMONIES; AND MANUAL OF THE COLOR, SWORD, AND GUIDON.

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- XI. Manual of the guidon.

CHAPTER 11. INTERIOR GUARD DUTY AND GUARD MOUNTING.

SECTION I. General information.

- II. Duties of personnel.
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- IV. Prisoners and prisoner guards.
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- VI. Compliments, salutes, raising and lowering the flag.
- VII. Guard mounting.
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CHAPTER 12. MARCHES, SECURITY ON THE MARCH, AND OUTPOSTS.

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- II. Advance guards.
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CHAPTER 13. TENT DRILL AND SHELTER.

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(A) Wounds, hemorrhage, shock, sprains, dislocations, and fractures.

(B) Transportation of sick and wounded.

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CHAPTER 15. EXTENDED-ORDER EXERCISES, COMBAT PRINCIPLES OF THE RIFLE SQUAD AND PLATOON, AND COMBAT SIGNALS.

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III. Extended order, the rifle squad.

IV. Combat principles, the rifle squad.

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VI. Extended order, the rifle platoon.

VII. Combat principles, the rifle platoon.

VIII. Extended order, the company.

IX. Extended order, weapons squads, sections and platoons.

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CHAPTER 16. TACTICS AND TECHNIQUE OF THE RIFLE COMPANY AND INFANTRY BATTALION, REGIMENT, AND BRIGADE.

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II. Offensive combat, general.

III. Successive steps of the offensive.

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VI. Small arms, instruction—general.

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VIII. Preparatory exercises—rifle.

IX. Sight setting and examination on preparatory exercises.

X. Preparatory exercises—pistol.

XI. Preparatory exercises—machine gun and automatic rifle.

XII. Range instruction and schedules.

LANDING-FORCE MANUAL

UNITED STATES NAVY

CHAPTER I

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SECTION I

SCOPE OF MANUAL

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1-1. *SCOPE OF MANUAL.*—*a.* (1) The drill prescribed herein is based on War Department Training Regulations and Basic Field Manuals, with such modifications as are necessary to conform to the organization, equipment, and requirements of the U. S. Navy. This drill is designed for general use and may be adapted to any type of unit; therefore some of the explanation is of a general nature which gives sufficient latitude for adaptation to specific units. Interpretation should be based on these general provisions, and all should learn to use this manual as a guide to a common sense solution of minor points which are not specifically covered in the text. Much discussion over trifles or failure to make appropriate adaptation indicates a failure to grasp the spirit of the regulations. Higher commanders should encourage subordinates to make minor adjustments without calling on higher authority for interpretation. Necessary adaptation should be simple and should not complicate the drill. Stress should be placed on precision in execution of the manual of arms and in marching in step with proper alignment. Nothing inspires the military spirit more than to see or to be a part of a compact group moving in unison, confidently and to a measured cadence. Complicated procedure destroys this effect.

(2) Basic strengths of units are governed by appropriate Tables of Organization. The diagrams of organizations shown in the figures herein are based specifically on Tables of Organization for the Landing Force (Chapter 1, sec. V). They must be adapted to the actual strength of the units concerned. They may be adapted to any type of unit, to change in Tables of Organization, and to the maneuver space available.

b. The extended-order exercises, combat principles, tactics, and technique herein described have been so prepared as to assist ships' landing forces to accomplish the following tasks:

(1) To assist local authorities in time of national disasters such as fires, floods, earthquakes, etc.

(2) To quell riots or disperse mobs.

(3) To operate against irregulars, usually for the purpose of protecting life and property.

c. Chemical warfare.—Occasions may arise when the use of chemicals or a knowledge of their use by an enemy will be necessary. Data

SCOPE OF MANUAL

relating to this subject are, at present, restricted, and have been omitted from the Landing-Force Manual. For regulations and instructions pertinent to chemical warfare in attack and defense, reference should be made to the following:

- (1) Chemical Warfare Service Field Manual, Volume I, Tactics and Technique (in the possession of all officers of the Marine Corps).
- (2) OP 706—War Department Basic Field Manual (BFM), Volume I, Chapter 8. Defense Against Chemical Attack.
- (3) Service Chemicals, USN. (Issued by the Chief of Naval Operations. Division of Fleet Training.)
- (4) Chemical Warfare, Part I (Marine Corps Schools).
- (5) Chemical Warfare, Part II (Marine Corps Schools).
- (6) Handbook of Chemical Weapons and Munitions (Marine Corps Schools).

d. The conduct of military operations of the nature usually associated with modern major warfare is beyond the scope of this manual.

e. Detailed information contained in other publications which are issued by or available to the Naval Service has been omitted from this manual, except by reference, and their sources indicated. War Department Training Regulations, War Department Basic Field Manuals, and other War Department publications, upon which parts of the text are based, have been indicated by reference at the beginning of each chapter or section concerned. Some of the subjects which were included in the 1927 edition of Landing-Force Manual have been eliminated as the need for them is not apparent. A list of these, as well as others, which may have occasional application in landing-force operations is as follows:

- (1) List of Marine Corps and War Department Training Publications (usually published annually).
- (2) BFM, Volume I, Chapter 5 or FM 21-25—Map and Aerial Photograph Reading.
- (3) BFM, FM 21-30—Conventional Signs, Military Symbols, and Abbreviations.
- (4) BFM, 21-35—Sketching.
- (5) BFM, FM 30-20—Military Maps.
- (6) Engineer Field Manual, FM 5-15—Field Fortification.
- (7) BFM, Vol. I, Ch. 9 or FM 21-45—Scouting and Patrolling, Dismounted.
- (8) BFM, FM 30-5—Combat Intelligence.
- (9) Antiaircraft Chapters of FM 23-10, FM 23-20, FM 23-55.
- (10) FM 7-5—Organization and Tactics of Infantry, the Rifle Battalion.
- (11) Field Service Regulations, FM 100-5—Operations.

SECTION II

GLOSSARY

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1-2. *GLOSSARY*.—As used in this manual, the following words and terms have the meanings indicated:

Alignment:

- (1) A straight line upon which several elements are formed, or are to be formed.
- (2) The dressing of several elements upon a straight line.

Attached: Temporarily assigned without becoming an organic part of.

Attached unit: A unit placed temporarily under the orders of a commander other than its regular commander.

Base: The element on which a movement or formation is regulated.

Battle sight: The position of the rear sight of a rifle when the leaf is laid down.

Beaten zone:

- (1) The intersection of the cone of dispersion or sheaf of fire with the surface on which the target is located.
- (2) The space on the ground in which the bullets strike.

Center: The middle point or element of a command.

Coach and Pupil method of instruction: A method by which men work in pairs, one as instructor, called the coach; the other, under instruction, called the pupil. Each in turn acts as coach and pupil.

Column: A formation in which the elements are placed one behind another.

Defilade:

- (1) Concealment from enemy observation or protection from his fire by intervening obstacles, such as hills or ridges.
- (2) The vertical distance from the defiladed position to the line of sighting or trajectory which just clears the covering mask.
- (3) To protect by defilade.

GLOSSARY

Demonstration: An attack delivered on a front where a decision is not sought, made with the object of deceiving the enemy as to the point of decisive action.

Deploy: To extend the front; in general, to change from column to line, or from close order to extended order.

Depth:

- (1) The space from head to rear of any formation or of a position, including the leading and rear elements.
- (2) The depth of a man is assumed to be 12 inches.

Distance:

- (1) Space between elements in the direction of depth.
- (2) Distance is measured with respect to dismounted men, from the back of the man in front to the breast of the man in the rear, or, in case of vehicles, from the rear part of the vehicle in front to the front part of the vehicle or breasts of leading men on drags (as the case may be) in rear.
- (3) Distance between troops in formation is measured from the rear rank of the unit in front to the front rank of the unit in rear.
- (4) Platoon commanders, guides, and others whose position in a formation is at 40 inches distance from a rank are themselves considered a rank. Otherwise the commander of any unit and those accompanying him are not considered in measuring distance between units.
- (5) The colors and guard are not considered in measuring distance between subdivisions of a unit with which they are posted.
- (6) The distance between ranks of dismounted men is 40 inches in both line and column.

Double time: A cadence of 180 steps to the minute, the length of the step being 36 inches.

Echelon:

- (1) In battle formations, the different fractions of a command in the direction of depth, to each of which a principle combat mission is assigned; e. g., the assault echelon, support echelon, and reserve echelon.

GLOSSARY

- (2) The various subdivisions of a headquarters, as forward echelon (the command group) and rear echelon (administration and supply group).
- (3) A formation where the elements are arranged in parallel lines, but displaced in depth to the right or left. For example, when a platoon is in the triangular formation with the leading squad in front of the center of the interval between the two rear squads, rear squads are echeloned to the right and left.

Element: One of the component subdivisions of a command, such as a file, squad, platoon, company, or any unit forming part of a larger unit.

Field music: The musicians of an organization other than the band; normally consisting of buglers (trumpeters) and drummers.

File: A column of men one behind the other.

Flank:

- (1) The right or left of a command in line or in column.
- (2) The element on the right or left of the line.
- (3) Either side of a force or of a position.

Formation:

- (1) The arrangement of the elements of a command.
- (2) The placing of all fractions in their order in line, in column, or for battle.

Front:

- (1) The lateral space occupied by an element or unit measured from one flank to the opposite flank. The front of a man is assumed to be 22 inches.
- (2) When a combat situation does not exist or is not assumed, the front is the direction towards which the command is faced.
- (3) The direction of the enemy.

Frontage: The extent of front occupied or covered by a unit in any drill or battle formation.

Group: A number of men formed for a specific purpose.

Guide:

- (1) An individual upon whom an organization or element regulates its march or alignment.
- (2) To regulate upon in marching.

GLOSSARY

Head: The leading element of a column in whatever direction the column may be facing or moving.

Interval:

- (1) A space between military units or elements on the same line.
- (2) Interval is measured, with respect to dismounted men, from the shoulder or elbow; vehicles from the hub of the wheel or the track.
- (3) Between troops in formation interval is measured from the left flank of the unit on the right to the right flank of the unit on the left.
- (4) The normal interval is one arm's length; the close interval is 4 inches.
- (5) The commander of any unit, or element thereof, and those accompanying him are not considered in measuring interval between units.
- (6) The colors and guard are not considered in measuring interval between elements of a unit with which they are posted.

Left: The left extremity or element of a body of troops.

Line: A formation in which the different elements are abreast of each other.

Loose pieces: Rifles, submachine guns, and automatic rifles not used in making stacks.

Mass formation: The formation of a company or any larger unit in which the squads in column are abreast of one another.

Mil:

- (1) A unit of angular measurement used in gunnery.
- (2) A true mil is the angle measured by an arc whose length is $\frac{1}{1000}$ of its radius. As the true mil is incommensurable with the circumference, the mil in general use is $\frac{1}{6400}$ of the circumference.

Order, close: A drill formation in which the elements are arranged in line or column with normal distances and normal or close intervals.

Order, extended: A formation in which the individuals or units are separated by intervals or distances, or both, greater than those in close order.

Pace: A step of 30 inches; the length of the full step in quick time.

Piece:

- (1) A general term for a rifle or firearm of any nature.
- (2) A single gun.

GLOSSARY

Point of rest:

- (1) The point at which a formation begins.
- (2) Specifically, the point toward which units are aligned in successive movements.

Position defilade: A gun is said to have position defilade when located behind a crest so that the gun is invisible from the target, but an observer standing at the gun position can see the target: sometimes called site defilade.

Quick time:

- (1) A cadence of 120 steps to the minute, the length of the step being 30 inches.
- (2) The normal cadence for drills and ceremonies.

Rank: A line of men placed side by side.

Right: The right extremity or element of a body of troops.

Step: The distance measured from heel to heel between the feet of a man walking. The half step and back step are 15 inches. The right step and left step are 12 inches. The steps in quick and double time are 30 and 36 inches, respectively.

Special-weapons platoon: A platoon which comprises a platoon headquarters, a 37-mm gun squad, an 81-mm mortar squad, and an ammunition squad. (In some military publications this platoon is called a Howitzer platoon but this leads to confusion in organizations having a pack-howitzer section.)

Support platoons: The platoons of the company used as a support to the assaulting platoons.

Supporting weapons: Supporting weapons are weapons other than those with which a rifle unit is normally equipped. They are used to support and assist in the accomplishment of the task of rifle units. Supporting weapons in ships' landing forces include 37-mm guns, 81-mm mortars, machine guns, artillery pieces, and weapons in airplanes.

Supporting unit: A unit which affords assistance to another given unit in combat, or is designated to do so, by fire, movement, shock action, or otherwise.

Wave: One of a series of lines of skirmishers or small columns of an attacking unit.

SECTION III

GENERAL RULES FOR CLOSE-ORDER DRILL

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1-3. *PURPOSES OF CLOSE-ORDER DRILL.*—The purposes of close-order drill are:

a. To enable a commander to move his command from one place to another in an orderly manner and to provide simple formations from which dispositions for combat may readily be assumed.

b. As an aid in disciplinary training.

c. To provide a means through ceremonies of enhancing the morale of troops and giving interesting spectacles to the public.

d. To give junior officers and petty officers practice in commanding troops.

1-4. *PRECISION IN DRILL.*—In order best to accomplish its mission, close-order drill should be frequent and of short duration. Smartness and precision should be required in the execution of every detail.

1-5. *QUIBBLING.*—In the interpretation of these regulations, the spirit must be sought. Quibbling over the minutiae of form is indicative of failure to grasp the spirit.

1-6. *EXPLANATION OF TEXT IN USING RIGHT AND LEFT.*—Movements that may be executed toward either flank are

GENERAL RULES FOR CLOSE-ORDER DRILL

explained as toward one flank. To adapt a description of a movement executed toward the opposite flank it is necessary only to substitute the words "left" and "right" for "right" and "left" as the case requires.

1-7. *GENERAL RULES CONCERNING MOVEMENTS.*—*a.* In movements executed toward the right flank when marching, the command of execution is given when the right foot strikes the ground; in movements toward the left flank, when the left foot strikes the ground.

b. Any movement may be executed either from a halt or when marching unless otherwise prescribed. If at a halt the command for movements involving marching, such as: 1. **Column right (left)**, 2. **MARCH**, is not prefaced by the command **Forward**.

1-8. *DOUBLE TIME.*—*a.* Any movement not specially excepted may be executed in double time.

b. If a unit is at a halt, or marching in quick time, and it is desired that a movement be executed in double time, the command **Double time** precedes the command of execution.

c. To hasten the execution of a movement begun in quick time, the command: 1. **Double time**, 2. **MARCH**, is given. Where applicable the leading or base unit continues to march in quick time, or remains at a halt if already halted; the other units complete the execution of the movement in double time and then conform to the gait of the leading or base unit.

1-9. *CORRECTION OF ERRORS AND COMMANDS.*—To revoke a command, or to begin anew a movement improperly begun from a halt, the command is: **AS YOU WERE**, at which command the movement ceases and the former position is resumed.

1-10. *DIRECTION OF THE GUIDE.*—*a.* Unless otherwise announced the guide of a platoon or subdivision of a company in column or line is right.

b. To march with the guide other than as prescribed above, or to change the guide, the command **GUIDE RIGHT (LEFT OR CENTER)** is given. The leading man in each file is responsible for the interval. The guide is responsible for the direction and cadence of march.

c. In column of subdivisions, the guide of the leading subdivision is charged with the step and direction; the guides in the rear preserve the trace, step, and distance.

d. The announcement of the guide, when made in connection with a movement, follows the command of execution for the movement.

PARTIAL CHANGES OF DIRECTION

1-12. *PARTIAL CHANGES OF DIRECTION*—*a.* Changes of direction of 45 degrees may be executed by interpolating in the preparatory command the word “half”, as **Column half right (left)**.

b. Slight changes in direction are effected by the command, **Incline to the right (left)**. The guide or guiding element moves in the indicated direction, and the remainder of the command conforms.

1-16. *DUTIES OF PETTY OFFICERS*.—As far as practicable, considerable responsibility and initiative should be given to petty officers; they should be required to exercise actual command of their units in drill, as they will in combat. In order to add prestige to petty officers, those who exercise command at ceremonies are posted at the head or in front of their units.

1-17. *NUMBERING UNITS*.—For permanent designation of infantry units, platoons within each company and squads within each rifle and heavy weapons platoon are numbered from right to left when in line, and from front to rear when in column. In the weapons platoon of the rifle company, squads are numbered within each weapons section. For drill purposes, the platoon or squad on the right (when in line) or in front (when in column) is referred to as the first unit, other units being designated in numerical order from right to left when in line or from front to rear when in column.

1-18. *POSTS OF OFFICERS, PETTY OFFICERS, GUIDONS, AND SPECIAL UNITS*.—*a.* The posts of officers, petty officers, guidons, or special units, in the various formations of the platoon, company, battalion, or regiment, are shown in the figures in succeeding chapters which cover the drill of each unit.

b. When changes of formation involve changes of posts the new post is taken by the most convenient and direct route, except where otherwise prescribed, as soon as practicable after the command of execution for the movement; officers and petty officers who have prescribed duties in connection with the movement ordered, take their new posts when such duties are completed. In executing any movement or facing, in aligning units, or in moving from one post to another, officers and petty officers maintain a military bearing and move with precision.

c. When acting as instructors, officers and petty officers go wherever their presence is necessary. They rectify mistakes and insure steadiness and promptness in the ranks.

d. In subsequent movements after the initial formation, guidons and special units maintain their relative positions with respect to the flank or end of the command on which they were originally posted.

e. In all formations and movements, a petty officer commanding a platoon or company carries his rifle as the men do, if he is so armed. He takes the same post as prescribed for an officer in command.

GENERAL RULES FOR CLOSE-ORDER DRILL

When giving commands, making reports, or drilling a unit, his rifle is at the right shoulder, if he be so armed.

1-19. *COMMANDS*.—*a*. Commands only are employed in close-order drill (signals are not used).

b. In these regulations a command is the direction of the commander expressed orally and in prescribed phraseology.

c. Where it is not mentioned in the text who gives the prescribed commands, they will be given by the commander of the unit.

d. There are two kinds of commands:

(1) The preparatory command, such as ***Forward***, which indicates the movement that is to be executed.

(2) The command of execution, such as ***MARCH, HALT, or ARMS***, which causes the execution.

e. Preparatory commands are distinguished in these regulations by ***boldface italics*** and those of execution by ***BOLDFACE ITALIC CAPITALS***.

f. The preparatory command is given at such interval of time before the command of execution as to admit of proper understanding, and to permit necessary commands of subordinate leaders; the command of execution is given at the instant the movement is to commence.

g. Officers and men fix their attention at the first word of command.

h. The tone of the command should be animated, distinct, and of a loudness proportioned to the number of men for whom it is intended. Indifference in giving commands must be avoided, as this leads to laxity in execution. Commands must be given with spirit.

i. If all men in the unit are to execute the same movement simultaneously, the subordinate leaders do not repeat commands; otherwise they repeat the command or give the proper new command for the movement of their own unit.

j. When giving commands to troops, the commander faces them. When the platoon, in close-order drill or in ceremonies, is part of a larger unit, the leader turns his head toward the column to give commands but does not face about.

k. While describing the execution of a number of individual movements with and without arms, the words (TWO), (THREE), etc., appear in the text. These numbers are not to be construed as commands but merely the count on which that particular part of the movement is to be executed. In executing these movements ***By the numbers***, they are the commands of execution for that part of the movement.

MASS COMMANDS

1-20. *MASS COMMANDS.*—*a.* Mass commands assist in overcoming diffidence, timidity, and awkwardness. They help to develop confidence, self-reliance, assertiveness, and enthusiasm. They require the individual to rely upon his own initiative and intelligence in order both to give the commands correctly, and to execute properly the movement requested by the command. They develop proficiency by making each individual his own drill instructor, and through their use the benefits of individual instruction may be transmitted to large masses.

b. Each individual is required to give the commands as if he alone were giving them to the entire unit. The volume and smash of the combined voices impels each man to extend himself to the limit in performing the movements with snap and precision. Giving the commands in unison results in an early development in coordination and sense of cadence in the individual.

c. Each movement should be explained in detail and illustrated before it is attempted by the mass. The necessary commands for putting the required movement into operation should be rehearsed, without performing the movement, until the mass has learned to give the command properly. When this has been accomplished, the movement should be performed at the command of the mass.

d. The interval between the preparatory command and the command of execution will depend upon the number of men being drilled and their degree of proficiency. Care must be exercised that this interval is not too short.

e. Instructors should give their preparatory commands with a rising inflection, lifting the entire unit with an intonation that rouses the men and makes them eager to respond when the command of execution is given. In no other phase of training is the quality of instruction as accurately reflected as in mass commands, because of the natural emulation of the instructor by the soldier.

f. (1) Mass commands in drill are usually confined to simple movements, those requiring short preparatory commands and commands of execution, and those which are executed simultaneously by all elements of the unit. No movement which requires a repetition of the preparatory command by subordinate leaders or instructors is applicable to mass commands.

(2) The instructor first describes the exercises to be executed, then gives such instructions as are necessary relative to the movement or

GENERAL RULES FOR CLOSE-ORDER DRILL

its cadence. He then causes the mass to give the necessary command to put it into operation. Examples are—

- (a) 1. *Instructor.*—1. *Call the platoon to attention*, 2. *COMMAND*.
2. *Mass.*—1. *Platoon*, 2. *ATTENTION*.
- (b) 1. *Instructor.*—1. *Face the platoon to the right*, 2. *COMMAND*.
2. *Mass.*—1. *Right*, 2. *FACE*.
- (c) 1. *Instructor.*—1. *Give the platoon "At ease"*, 2. *COMMAND*.
2. *Mass.*—*AT EASE*.
- (d) 1. *Instructor.*—1. *Have the platoon stand at parade rest*.
2. *COMMAND*.
2. *Mass.*—1. *Parade*, 2. *REST*.
- (e) 1. *Instructor.*—1. *Halt the platoon*, 2. *COMMAND*.
2. *Mass.*—1. *Platoon*, 2. *HALT*.
- (f) 1. *Instructor.*—1. *March the platoon (squad) forward 8 paces, and halt*, 2. *COMMAND*.
2. *Mass.*—1. *Forward*, 2. *MARCH*, *one, two, three, four*, 3. *Platoon*, 4. *HALT*, *one, two*.

(3) Continuous movements may be conducted as follows:

- (a) *Instructor.*—*All movements until further notice will be at your command*.
- (b) 1. *Instructor.*—1. *Forward March*, 2. *COMMAND*.
2. *Mass.*—1. *Forward*, 2. *MARCH*.
- (c) 1. *Instructor.*—1. *By the right flank*, 2. *COMMAND*.
2. *Mass.*—1. *By the right flank*, 2. *MARCH*.

(4) When the instructor desires to terminate mass commands he cautions, *At my command*.

SECTION IV

ORGANIZATION OF THE LANDING FORCE

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1-21. *GENERAL*.—*a*. Each ship (having landing-force equipment), division, force, and fleet shall maintain a permanently organized landing force consisting of rifle, machine gun, 37-mm gun, 81-mm mortar, artillery, and other units, as prescribed by the force or fleet commander.

b. The organization will be flexible so that all or any part of the landing force may be landed, depending on the nature of the task to be performed.

c. Service Standard.—The organization and equipment herein prescribed will form the basis for each ship, division, force, and fleet landing force. When conducting actual or simulated field operations, units will be fully equipped and organized.

d. Parade Standard.—When the landing force is required to take part in a ceremony or street parade, the organization and equipment may be modified as follows:

(1) May omit special details (cooks, yeomen, signalmen, artificers, etc.) normally included in the various headquarters.

(2) May omit machine-gun, special-weapons, and artillery units.

(3) May organize, equip, and include machine-gun, special-weapons, and artillery units as rifle units.

However, as the exigencies of the service permit and at the discretion of the senior officer present, it is desirable that for parades and shore drills, landing-force units be organized and fully equipped as for *Service Standard*, except that personnel be required to turn out in light-marching order.

e. In some situations, such as the relief of a city which has suffered disaster such as a flood, fire, earthquake, etc., it will be necessary to land more men than are called for in the landing-force organization.

ORGANIZATION OF THE LANDING FORCE

1-22. *SHIP'S LANDING FORCE*.—*a*. The ship's landing force varies in size and composition according to the type of ship. For a ship of the first rate it normally consists of a battalion. (For the organization of a battalion see section V.) When the landing forces of several ships are landed as a part of a fleet organization, the marines of the several ships may be consolidated and formed into separate Marine battalions. The same principle may be applied to the artillery platoons.

b. A small ship which cannot furnish a battalion, should organize its landing force so that a battalion can be formed by combining forces with adjacent ships. (For platoon and company organization, see section V.)

1-23. *PERMANENT ORGANIZATION*.—Whatever the plan of organization adopted for the division, force, and fleet landing forces, it is important that it be made as nearly permanent as possible, complete in all its details, and that units be definitely assigned, in order that all concerned may become familiar with their duties before the time when the landing force may be required. This is especially true of the detail of the commanders and of staff officers for all organizations.

1-24. *BASIS OF ORGANIZATION OF UNITS WITHIN A LANDING FORCE*.—As indicated in succeeding chapters, the organization of the component parts of a landing force will be influenced by the conditions existing at the time of their organization. The organization of the various units described in this manual are based on the current *Table of Organization, U. S. Marine Corps*, and the current *Orders Prescribing the Organization of the Landing Forces of the Battle Force, Scouting Force, Special Service Squadron, and Asiatic Fleet*, respectively.

1-25. *THE MAXIMUM FORCE*.—Where otherwise desirable and the number of men permits, the ship's landing force may be increased by additional units; but enough men shall always be left on board to care for the ship, to use the battery, and to move the engines as may be required by the existing conditions of weather or service. Not more than one-half of the combatant complement of a ship shall be landed at any one time, except under extraordinary circumstances and when specifically directed by the senior officer present.

1-26. *USE OF MARINES*.—*a*. Marines will compose the entire landing force whenever the number present is adequate. In a mixed

RATINGS AND RANKS

force the special training of marine officers and men will be utilized to the greatest practicable extent to increase the efficiency of the entire force.

b. Marine officers are particularly well qualified to serve as executive officers and plans and training officers on landing-force staffs, and as commanders of machine gun, 37-mm gun, 81-mm mortar, and artillery units.

1-27. *RATINGS AND RANKS.*—*a.* Throughout this text the ratings and ranks of various members of the units discussed are given only as a guide and are not mandatory. They serve to show the relative importance of the various offices.

b. Designations of enlisted leaders are given with the Navy ratings. In chapter 11, the terms “corporal of the guard” and “sergeant of the guard” are used to indicate the office, not essentially the rating of the petty officer filling it. The corresponding rating of petty officers of the Navy and the rank of noncommissioned officers of the Marine Corps are as follows:

NAVY	MARINE CORPS
Chief petty officer (regimental)-----	Sergeant major.
Chief petty officer (battalion)-----	Sergeant major.
Chief petty officer (company)-----	First sergeant.
Petty officer, first class-----	Platoon sergeant.
Petty officer, second class-----	Sergeant.
Petty officer, third class-----	Corporal.
Nonrated man-----	Private first class, or private.

SECTION V

ORGANIZATION OF UNITS WITHIN A LANDING FORCE, AND COMMAND AND STAFF FUNCTIONS

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NOTE.—For organization of artillery units, see chapter 8.

1-28. *ORGANIZATION OF THE RIFLE SQUAD*.—A squad at normal strength comprises a petty officer (squad leader) and 7 non-rated men one of whom is designated as second in command. For details, see chapter 3.

1-29. *ORGANIZATION OF THE RIFLE PLATOON*.—*a*. The rifle platoon at normal strength comprises a platoon headquarters and 3 squads (see fig. 1). However, the organization of a rifle platoon may be modified as necessary for the platoon to perform its anticipated missions or to conform to a ship's organization bill.

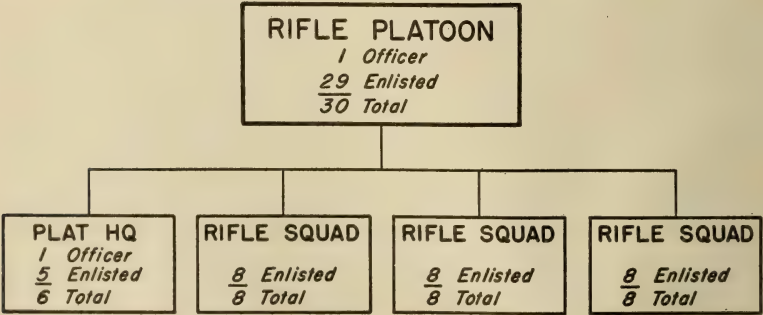


FIGURE 1.—Organization, the rifle platoon.

MODIFICATION OF THE RIFLE PLATOON ORGANIZATION

b. The platoon, once organized, should be maintained as a platoon until its strength is reduced below 2 squads.

c. The platoon headquarters comprises:

1 lieutenant (jg) or ensign.—Platoon leader.

1 petty officer, first class.—Platoon petty officer (platoon sergeant), second in command.

1 petty officer, second class.—Platoon guide.

3 nonrated men.—Messengers; it is desirable that 1 be a signalman.

1-30. *MODIFICATION OF THE RIFLE PLATOON ORGANIZATION.*—*a.* Platoons consisting of four squads may be divided into 2 sections, but this is not essential. Platoons of 5 or more squads should be divided into 2 sections. The extended-order exercises and combat principles described in chapter 15 are for a platoon of 3 squads, and may be adapted to one of 4 squads, provided the platoon is not divided into two sections.

b. A section comprises a section headquarters and 2 or 3 squads. Each section headquarters comprises 1 petty officer, second class (section leader and platoon guide) and 1 petty officer, third class (section guide). Sections are numbered consecutively from right to left in each platoon. These designations do not change. When sections drill as platoons or independently, the platoon guides become section leaders and, as such, drill and control their sections.

c. Platoons organized for independent missions, or a ship's landing force of the size of a platoon, should include such of the following as are considered necessary for contemplated operations:

(1) A medical officer or hospital corps man, and litter bearers as required, from platoon personnel.

(2) A supply group of 1 storekeeper, 1 ship's cook, and an ammunition and ration party of 2 men (assigned to platoon headquarters).

(3) One machine gun squad (with 1 machine gun).

(4) A signalman among the platoon messengers. In the event a ship's landing force of the size of a platoon is combined with landing-force detachments from other ships to form a company, the platoon's medical and supply groups may be assigned to the company headquarters.

ORGANIZATION OF UNITS WITHIN A LANDING FORCE

1-31. *ORGANIZATION OF THE RIFLE COMPANY.*—*a.* The rifle company at normal strength comprises 3 platoons and company headquarters (see fig. 2). However, this organization may be modified as necessary for the company to best perform its anticipated missions or to conform to a ship's organization bill. Suggested modifications include:

(1) A rifle company comprising a company headquarters and 2 or 4 rifle platoons.

(2) A rifle company comprising a company headquarters, 1, 2, or 3 rifle platoons, and a machine-gun squad, section, or platoon.

b. The initial organization of the company should be maintained as far as practicable. If any platoon within a company is reduced below 2 squads, it is either increased to the required number by transfers from other platoons, or it is broken up and its members assigned to other platoons. A company reduced in strength to less than 4 squads should be organized as a single platoon, but retains the company designation.

c. Company headquarters.—The company headquarters is organized into a command group and administration and supply group. Normally company headquarters will comprise 1 officer and 14 enlisted men distributed as follows:

(1) *The command group.*—This group accompanies the forward or assault echelon of the company in combat and should attend all drills, ceremonies, and shore operations. It comprises:

1 lieutenant, U. S. N.—Company commander.

1 chief petty officer.—Company chief petty officer.

1 petty officer.—

1 nonrated man.— } Signalmen.

1 bugler.

4 nonrated men.—Messengers.

(2) *The administration and supply group.*—This group is the rear echelon of the company and does not join in the assault but should attend all drills and formations of the company except when excused to perform their administrative functions. It comprises:

1 yeoman.—Company clerk.

1 storekeeper.—In charge of property.

3 ship's cooks.—The senior cook is the acting commissary steward and is in charge of the company mess.

1 mess attendant.—Officers' servant.

Mess cooks.—Messmen assigned from the platoons as required.

NOTE.—When a battalion mess is established ship's cooks are assigned to it. A battalion mess usually permits a reduction in the commissariat personnel required within a battalion.

ORGANIZATION OF THE MACHINE-GUN AND SPECIAL-WEAPONS COMPANY

d. If sufficient company officers are available, it is generally desirable to detail one as second in command (executive officer) of each company in addition to the platoon leaders. This officer commands the administration and supply group in combat.

e. A company organized for independent missions, or a ship's landing force of the size of a company should include in its administration and supply group such of the following as are considered necessary for the contemplated operations:

(1) Medical section consisting of a medical officer and 1 hospital corps man, and litter bearers assigned from company personnel as required.

(2) Ammunition and ration party consisting of 2 nonrated men per platoon. These men work under the direction of the storekeeper and acting commissary steward.

(3) Artificers.

In the event a ship's landing force of the size of a company is combined with other companies to form a battalion, the above personnel may be assigned to the battalion headquarters company.

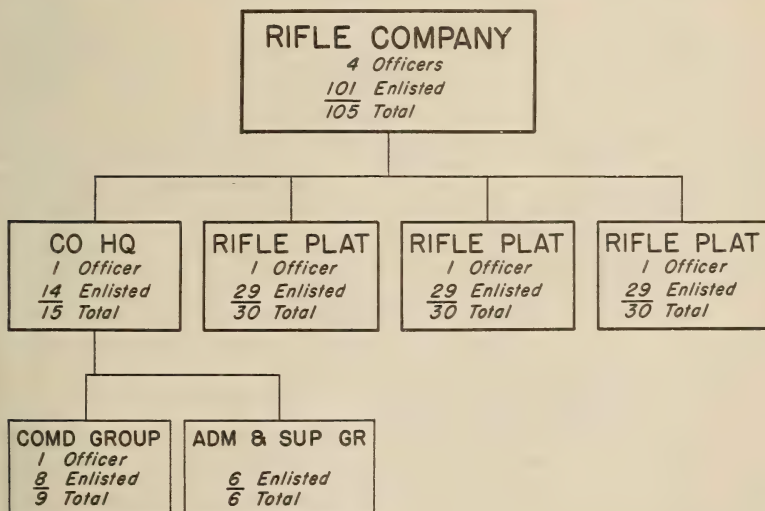


FIGURE 2.—Organization, the rifle company.

1-32. ORGANIZATION OF THE MACHINE-GUN AND SPECIAL-WEAPONS COMPANY.—*a.* The machine-gun and special-weapons company at normal strength comprises a machine-gun platoon, special-weapon platoon, and company headquarters (see fig. 3). However, this organization may be modified as necessary

ORGANIZATION OF UNITS WITHIN A LANDING FORCE

for the company to best perform its anticipated mission, to conform to ship organization bills from various types of ships or to utilize the special weapons with which the ships are equipped.

b. Company headquarters.—The company headquarters comprises 2 officers and 15 enlisted men. Its organization is similar to that of a rifle company. (See par. 1-31 *c.*) The additional personnel is distributed as follows:

(1) Command group.—1 petty officer, second class.—Munitions petty officer.

(2) Administration and supply group.—1 lieutenant (jg).—Executive officer, second in command.

c. For organization of the machine-gun platoon and special-weapons platoon, see chapters 6 and 7, respectively.

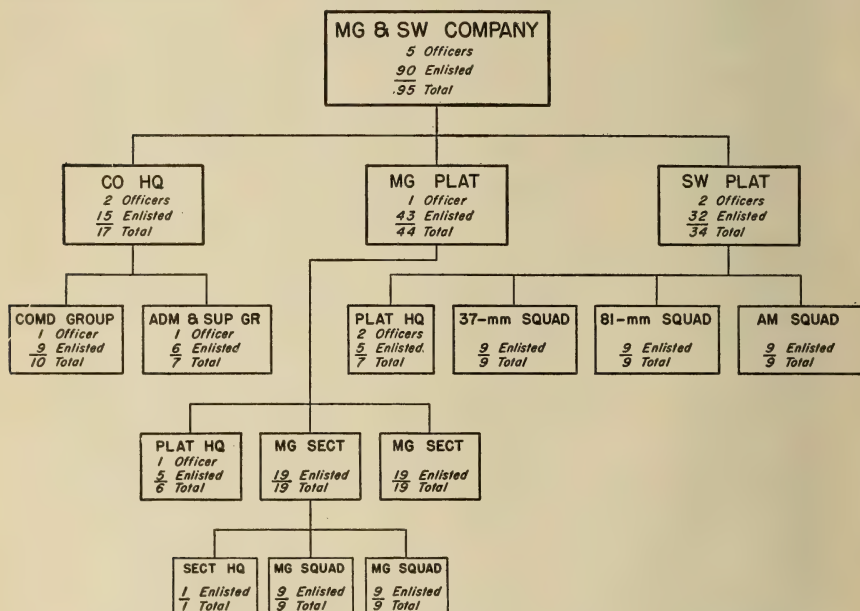


FIGURE 3.—Organization, the machine-gun and special-weapons company.

1-33. ORGANIZATION OF THE INFANTRY BATTALION.—

a. A landing-force battalion should be so organized as to include all command, administrative, and supply functions required for its employment as a combat unit. With such organization, it can function independently or be combined with other battalions to form a regiment. In the latter case the regimental commander will require only a small regimental staff and headquarters company to coordinate the operations of the several battalions.

ORGANIZATION OF THE BATTALION HEADQUARTERS COMPANY

b. An infantry battalion, at normal strength, comprises 3 rifle companies, 1 machine-gun and special-weapons company, and a headquarters company (see fig. 4). The organization of a ship's landing-force battalion should be modified as necessary to enable the battalion to best perform its anticipated mission, or to conform to a ship's organization bill, or the organization bills of the ships furnishing the component parts of the battalion. Suitable modifications in battalion organization include:

- (1) Reduce the number and strength of the rifle companies.
- (2) Omit the machine-gun and special-weapons company. Provide a machine-gun platoon (4 machine guns), and either a 37-mm squad (1 gun) or an 81-mm mortar squad (1 mortar).
- (3) Omit the machine-gun platoon or company, and attach a machine-gun squad (1 gun) or a machine-gun section (2 guns) to each rifle company.
- (4) Attach an artillery platoon (1 gun) to the battalion if it does not contain a 37-mm gun or an 81-mm mortar.

c. As indicated above, machine-gun squads and sections may be organized into a machine-gun company or separate machine-gun platoon, or a machine-gun squad or section may be included as an organic part of each rifle company. Unless the personnel of machine-gun platoons is well trained and is commanded by officers skilled in all phases of machine gunnery, particularly indirect and overhead fire, rifle companies will receive more support per machine gun when the gun squads are attached to or are an organic part of the rifle company than when the gun squads operate in separate, unattached machine-gun platoons. When machine-gun squads are included as organic parts of rifle companies, they may be assembled for training purposes under competent instructors.

d. For ceremonies and street parades the machine-gun elements of rifle companies may be formed into machine-gun platoons and companies, or when combined with special-weapons platoons constitute a machine-gun and special-weapons company. With the latter contingency in view, the diagrams showing the formations of a battalion include a machine-gun and special-weapons company. (See figs. 1 and 2, chapter 4.)

e. A service platoon is organized in and forms a part of each battalion headquarters company. It replaces the regimental service company which is normally part of an infantry regiment.

1-34. *ORGANIZATION OF THE BATTALION HEADQUARTERS COMPANY.*—*a.* This company furnishes the personnel and equipment necessary to the battalion commander for the

ORGANIZATION OF UNITS WITHIN A LANDING FORCE

proper execution of his command and administrative functions, and such other personnel as will enable the battalion to be self-contained. The headquarters company should include such of the below described subdivisions as are considered necessary for contemplated operations. The composition of each of the subdivisions should be followed as a guide only. In some cases two or more functions can be filled by one officer.

b. Battalion headquarters.—Provides for the command, supply, and administration of the battalion as a whole. It comprises:

- 1 commander or lieutenant-commander.—Battalion commander. The commissioned and enlisted staff. (See par. 1-36.)

c. Company headquarters.—Provides for the command, supply, and administration of the battalion headquarters company only. It comprises:

- 1 lieutenant, USN.—Company Commander (also Battalion Adjutant), carried on complement of the battalion staff.
- 1 chief petty officer.—Company chief petty officer.
- 1 yeoman.—Company clerk.
- 1 storekeeper.—In charge of company property.
- 3 ship's cooks.—Senior is the company commissary steward and is in charge of the company mess.
- 2 mess cooks.—Company messmen.
- 1 officers' cook.—For the battalion staff officers' mess.
- 2 mess attendants.—For the battalion staff officers' mess.

NOTE.—When a battalion mess is established, all ship's cooks and mess cooks of the battalion, except the officers' cook, are assigned to it. A battalion mess usually permits a reduction of commissariat personnel within a battalion.

d. Communication platoon.—The communication platoon comprises a platoon headquarters, message center and messenger section, wire section, radio and panel section, and visual section.

(1) Platoon headquarters comprises:

- 1 lieutenant (jg) or ensign.—Battalion communication officer, carried on complement of the battalion staff.
- 1 chief petty officer.—Second in command. A signaller or radioman capable of coordinating the work of the four sections.

(2) Message center and messenger section.—In general, a message center corresponds to a communication office aboard ship. As far as practicable all outgoing messages are dispatched through it and all incoming messages are received, recorded, and delivered by it. This section furnishes messengers to the battalion commander and staff as required. In combat it is augmented by 1 or 2 messengers, from the

ORGANIZATION OF THE BATTALION HEADQUARTERS COMPANY

headquarters of each combat company, who carry messages from the message center to their respective companies. It comprises:

- 1 petty officer.—Chief of section.
- 1 yeoman.—Communication clerk.
- 6 nonrated men.—Messengers.

(3) Wire section.—This section is an organic part of each battalion in the Fleet Marine Force but it is not customary to organize it in ships' landing-force battalions. It comprises:

- 1 electrician's mate.—Chief of section.
- 1 electrician's mate.—In charge of construction (lineman).
- 1 line guard.—Patrols the line, repairs breaks, etc.
- 3 switchboard operators.

(4) Radio and panel section comprises:

- 1 petty officer.—Chief of section.
- 4 radio operators.—They also operate the panel station for air-ground communication. The cloth panels are laid out in accordance with the current air-ground liaison code.
- 3 nonrated men.—Labor party, to assist in carrying the radio set and to operate a hand generator. They may be permanently assigned to the radio section or be detailed from combat companies as required.

(5) Visual section comprises:

- 1 petty officer.—Chief of section.
- 3 signalmen.

e. Service platoon.—The service platoon comprises the supply section, mess section, pioneer section, staff section, and pay section. It is commanded by the battalion supply officer who is carried on the complement of the battalion staff.

(1) Supply section comprises:

- 1 chief commissary steward.—Assistant to the supply officer in supplying the battalion with foodstuffs.
- 1 chief gunner's mate.—Munitions petty officer and assistant to the supply officer in supplying the battalion with ammunition. He is also in charge of repairing the weapons of the battalion which can not be repaired within their respective units.
- 1 storekeeper.—Assistant to the supply officer in supplying the battalion.
- 10 nonrated men.—Ammunition and rations party, employed by the supply officer to furnish the battalion with supplies, particularly rations and ammunition. This detail should include two barbers.

ORGANIZATION OF UNITS WITHIN A LANDING FORCE

(2) Mess section.—When a battalion mess is established the chief commissary steward from the supply section is in charge and the ship's cooks and necessary mess cooks are assigned to it from the various companies.

(3) Pioneer section.—Organized and equipped for purposes of construction and demolition. Construction includes cutting loopholes and passage ways through walls, building or repairing latrines, docks, bridges, water and power installations, etc. Demolitions include destruction of buildings, bridges, railroads, etc. It comprises:

1 chief carpenter's mate.—Chief of section.

1 carpenter's mate.

1 blacksmith.

1 shipfitter or plumber.—For maintenance of water supply.

1 machinist's mate.—For maintenance of power plant.

1 electrician's mate.—For general assignment (two are in the communication platoon).

1 chief gunner's mate.—For handling explosives for demolition purposes.

4 men.—Familiar with demolition explosives.

4 nonrated men.—Labor party, to assist in performing labor of a pioneer nature. Permanently assigned to the pioneer platoon or detailed from the combat companies as required.

(4) Staff section.—Rear echelon of the clerical force of the battalion commander. Includes a typewriter and other articles necessary for establishing an office. It comprises:

2 yeomen.

(5) Pay section.—Organized if necessary and as required.

f. Band section.—Available for service as litter bearers with the medical section. It comprises:

1 bandmaster.—Chief of section.

19 bandsmen, all ratings.

g. Intelligence section.—Commanded by the battalion intelligence officer, carried in the complement of the battalion staff. It comprises:

1 petty officer.—Chief of section.

1 draftsman.—To make maps.

1 topographer.—To make road and area sketches.

2 scouts and observers.—To assist the intelligence officer to gain information of the enemy. They usually man the organization's observation post.

RESPONSIBILITY FOR TRAINING

h. Medical section.—Commanded by the battalion medical officer, carried in the complement of the battalion staff. It comprises:

8 hospital corps men.—1 for each company and 4 at the battalion dressing station or small hospital.

Litter bearers.—Assigned from the various companies as required, usually 2 per 100 combatants.

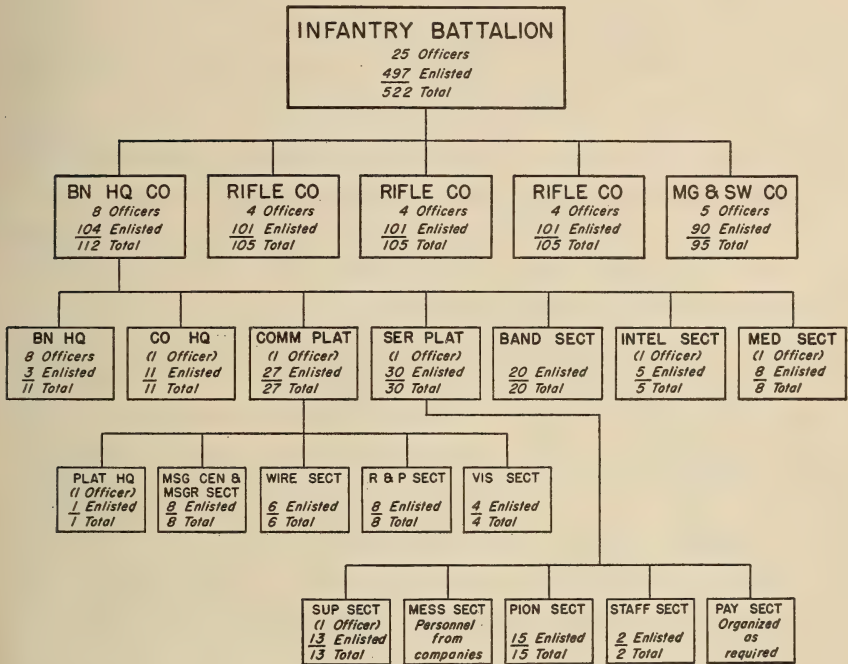


FIGURE 4.—Organization, the infantry battalion.

1-35. *RESPONSIBILITY FOR TRAINING, THE BATTALION HEADQUARTERS COMPANY.*—*a.* The company commander is responsible for the general training of the company and for the supervision of special and technical training.

b. The responsibility for the special and technical training of each platoon and section is normally placed upon the officer under whom the platoon or section functions in time of combat.

c. Company training will include close-order drill.

1-36. *THE BATTALION STAFF.*—*a.* The commissioned and enlisted staff of the battalion commander (commander or lieutenant commander) comprises:

1 lieutenant-commander or lieutenant.—Executive officer, second in command.

ORGANIZATION OF UNITS WITHIN A LANDING FORCE

- 1 lieutenant, USN.—Battalion adjutant.
- 1 lieutenant or lieutenant (jg).—Intelligence officer.
- 1 lieutenant, USN.—Plans and training officer.
- 1 lieutenant, USN.—Supply officer (also munitions officer).
- 1 lieutenant (jg) or ensign.—Communication officer.
- 1 medical officer.
- 1 chief petty officer.—Battalion chief petty officer.
- 1 yeoman.—Battalion clerk.
- 1 bugler.—Bugler and messenger. (Additional messengers are from message center and messenger section.)

b. When desirable or necessary to combine certain staff functions, the executive officer takes over the functions of the plans and training officer, and the adjutant those of the intelligence officer.

1-37. *DUTIES OF THE MEMBERS OF THE BATTALION STAFF.*—*a. Executive officer.*—In general, his position corresponds to that of an executive officer of a ship.

b. Battalion adjutant.—Commands the battalion headquarters company and is charged with staff functions which relate to personnel. His duties include the supervision of:

- (1) Postal service.
- (2) Reports concerning, and handling of, prisoners of war and enemy civilians.
- (3) Strength and casualty reports, station bills and rosters, and other personnel statistics.
- (4) General regulations and routine administration which especially concern personnel, or routine not otherwise assigned to another staff section.

c. Intelligence officer.—Responsible for the collection, classification, and evaluation of information concerning the enemy and the dissemination of the resultant intelligence. His primary function is to keep the commander informed with regard to the enemy's situation and probable intentions. In combat, his section maintains one or more observation posts within his organization's zone of action or area. His duties also include employment of translators and interpreters and procurement and distribution of maps.

d. Plans and training officer.—Responsible in general for those functions which relate to organization, training, and operations. One of his most important duties is to arrange for coordination and employment in combat, of the combined arms. He performs the following specific duties:

- (1) Prepares plans for, and supervises:
- (a) Training.

DUTIES OF THE MEMBERS OF THE BATTALION STAFF

(b) Tactical disposition of troops.

(c) Security measures, reconnaissance, and lateral communication in combat, including liaison with adjacent units.

(2) Keeps himself informed with regard to:

(a) Adaptability of terrain for combat operations.

(b) Instructions, tactical plans, and operation orders received from higher or adjacent units.

(3) Prepares written operation orders and, after they are approved, is responsible for their timely delivery to the troops. Prepares estimates of the situation and plans for combat when required. Assists the organization commander in the preparation and issuance of oral operation orders.

(4) Supervises the system of signal communication.

(5) Keeps the war diary.

e. Supply officer.—The supply officer commands the service platoon. He is charged, in general, with all supply arrangements. He is responsible for such supply arrangements as will accord the utmost freedom of action to the command. His duties include the supervision of activities concerning:

(1) Procurement in the theatre of operations, storage, and distribution of all supplies, including ammunition and animals.

(2) Procurement of shelter and facilities, including their leasing, repair, maintenance, and disposition.

(3) Construction of facilities relating to supply, shelter (housing), transportation.

(4) Payment for damages or claims.

(5) Payment for labor hired.

f. Munitions officer.—The duties of the munitions officer include responsibility for the requisition, receipt, and distribution of ammunition (including pyrotechnics), and for keeping the ammunition records and reports. He is assisted by the munitions petty officer, a chief gunner's mate in the supply section.

g. Communication officer.—The duties of the communication officer include:

(1) Command of the communication platoon. He is responsible for its technical training and functioning.

(2) Establishment and operation of the signal communication system, including the message center, for which his commander is directly responsible.

h. Medical officer.—The duties of the medical officer include:

(1) Technical advisor to the commander and the staff on all matters pertaining to the health and sanitation of the command, or of

ORGANIZATION OF UNITS WITHIN A LANDING FORCE

occupied territory; the care and disposition of sick and injured; the location and utilization of medical personnel; and the training of all troops in hygiene and first aid.

(2) Supply of medical and dental equipment and supplies.

(3) For additional duties see Medical Department Manual, U. S. Navy.

1-38. *ORGANIZATION OF THE REGIMENT.*—*a.* An infantry regiment at normal strength comprises a headquarters company, service company, and two or more battalions, usually three (see fig. 5). If landing-force battalions from several ships are combined to form a regiment, their respective service platoons may be combined to form the regimental service company; otherwise, the service company is not organized. This provision is made so that each ship's landing-force detachment, regardless of its size, will be self-sufficient and capable of conducting independent operations.

b. To provide for the regimental service company, if one is required, its organization is described in this chapter and shown in fig. 5.

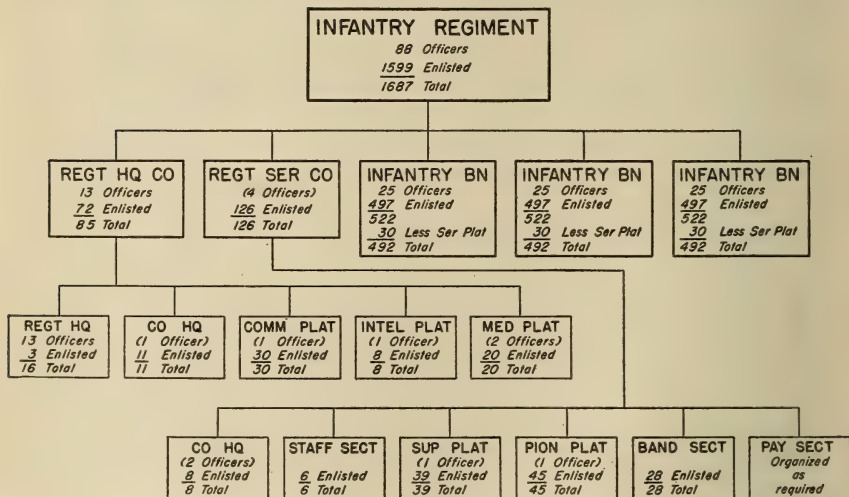


FIGURE 5.—Organization, the infantry regiment.

NOTE.—The staff section, supply platoon, and pioneer platoon comprise the enlisted personnel from the service platoons of the three battalions.

1-39. *THE REGIMENTAL HEADQUARTERS COMPANY.*—The organization, formation, functions, responsibility for training, duties of members of the staff, etc., of the regimental headquarters company are, in general, similar to those of the battalion headquarters company. The principal differences include:

THE REGIMENTAL SERVICE COMPANY

- (1) The regiment is commanded by a captain USN.
- (2) The individual members of the regimental staff are of higher rank than the officers holding corresponding positions in a battalion.
- (3) The regimental staff may include the following additional officers:
 - 1 paymaster.—When supply officer is not disbursing officer.
 - 1 chaplain.
 - 1 dental officer.
 - 1 machine-gun, special-weapons, and artillery officer.—To assist the plans and training officer in coordinating the effort and employment of these weapons.
 - 1 warrant officer.—Assistant to the supply officer.
- (4) The intelligence section, designated as a platoon, has three additional scouts and observers.
- (5) The communication platoon has three additional messengers in the messenger section.
- (6) The medical section, designated as a platoon, has 12 additional hospital corps men and establishes a regimental medical headquarters and a small hospital.
- (7) When the regiment has a service company, the band is usually included as a subdivision of it.

1-40. *THE REGIMENTAL SERVICE COMPANY.*—*a.* This company, when organized from the personnel of the service platoons of the battalions, is commanded by the regimental supply officer, and usually comprises:

- (1) Company headquarters.
 - (2) Staff section.—These men comprise the rear echelon of the clerical force required by the regimental commander and his staff. This section is equipped with typewriters and necessary office supplies.
 - (3) Supply section, designated as a platoon.
 - (4) Pioneer section, designated as a platoon.
 - (5) Band section.
 - (6) Pay section.
- b. Company headquarters.*—The company headquarters comprises:
- 1 lieutenant, USN.—Company commander (also regimental supply officer), carried in complement of the regimental staff.
 - 1 chief petty officer.—Company chief petty officer.
 - 1 yeoman.—Company clerk.
 - 1 storekeeper.—In charge of company property.

ORGANIZATION OF UNITS WITHIN A LANDING FORCE

3 ship's cooks.—Senior is the company commissary steward and is in charge of the company mess.

2 mess cooks.—Company messmen.

c. Normally, a landing-force battalion or regiment does not have a train as an organic part of its organization. Such animals and vehicles as are required are usually engaged for specific tasks and then discharged. In the event a regiment does contain trains they take position in the various formations in rear of their respective units, or as directed by the organization commander.

1-41. *ORGANIZATION OF THE BRIGADE.*—a. A landing-force brigade normally comprises a brigade headquarters, special troops, two infantry regiments, an engineer battalion, and a medical battalion (see fig. 6). Artillery and aviation may be added, in which case the organization is called a reinforced brigade.

b. The commander of a brigade is a flag officer (Navy) or a general officer (Marine Corps). The second in command is Chief of Staff, usually with the rank of captain, USN, or colonel, USMC. Other members of the staff correspond with those provided for the regiment (see par. 1-39), with the addition of an inspector and law officer.

c. Brigade headquarters comprises a forward and rear echelon organized as required by the task (see fig. 6).

d. The special troops, engineer battalion, and medical battalion are organized if necessary and as required (see fig. 6).

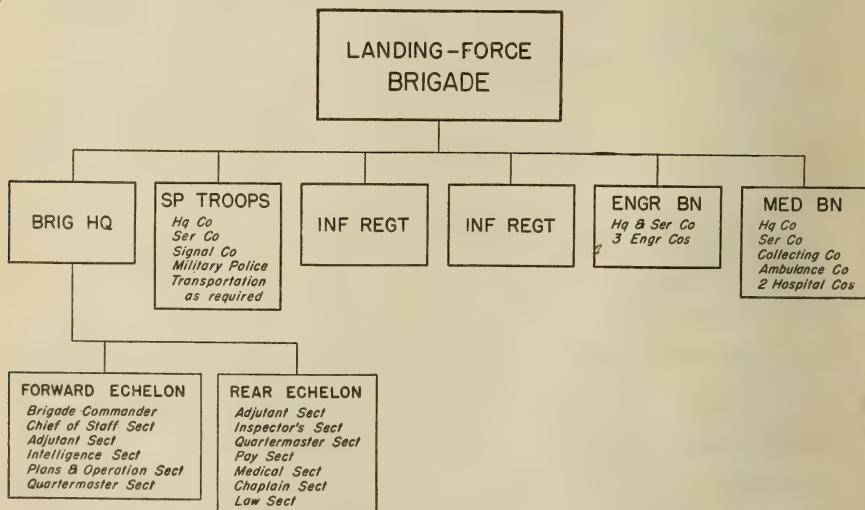


FIGURE 6.—Organization, the landing-force brigade.

LANDING-FORCE MANUAL

UNITED STATES NAVY

1938

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CHAPTER 2

INDIVIDUAL INSTRUCTION WITHOUT ARMS AND WITH ARMS (RIFLE, AUTOMATIC RIFLE, SUBMACHINE GUN, PISTOL, AND BAYONET)

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FOREWORD

The Landing-Force Manual, U. S. Navy, 1938, is published in nineteen chapters as follows:

- CHAPTER 1. INTRODUCTION.
- CHAPTER 2. INDIVIDUAL INSTRUCTION WITHOUT ARMS AND WITH ARMS (RIFLE, AUTOMATIC RIFLE, SUBMACHINE GUN, PISTOL, AND BAYONET).
- CHAPTER 3. DRILL, THE SQUAD, PLATOON, AND COMPANY.
- CHAPTER 4. FORMATIONS OF THE BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 5. CART DRILL.
- CHAPTER 6. DRILL, MACHINE GUN, CALIBER .30.
- CHAPTER 7. DRILL, THE SPECIAL-WEAPONS PLATOON (37-MM GUN AND 81-MM MORTAR).
- CHAPTER 8. DRILL, ARTILLERY.
- CHAPTER 9. THE INFANTRY PACK, AND DISPLAY OF EQUIPMENT AND CLOTHING.
- CHAPTER 10. CEREMONIES; AND MANUAL OF THE COLOR, SWORD, AND GUIDON.
- CHAPTER 11. INTERIOR GUARD DUTY AND GUARD MOUNTING.
- CHAPTER 12. MARCHES, SECURITY ON THE MARCH, AND OUTPOSTS.
- CHAPTER 13. TENT DRILL AND SHELTER.
- CHAPTER 14. FIELD SANITATION, PERSONAL HYGIENE, AND FIRST AID.
- CHAPTER 15. EXTENDED-ORDER EXERCISES, COMBAT PRINCIPLES OF THE RIFLE SQUAD AND PLATOON, AND COMBAT SIGNALS.
- CHAPTER 16. TACTICS AND TECHNIQUE OF THE RIFLE COMPANY, AND INFANTRY BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 17. THE DEFENSE AND ATTACK OF CITIES, RIOT DUTY, AND NATIONAL DISASTERS.
- CHAPTER 18. PHYSICAL DRILL.
- CHAPTER 19. SMALL-ARMS MARKSMANSHIP.

LANDING FORCE MANUAL

UNITED STATES NAVY

CHAPTER 2

INDIVIDUAL INSTRUCTION WITHOUT ARMS AND WITH ARMS (RIFLE, AUTOMATIC RIFLE, SUBMACHINE GUN, PISTOL, AND BAYONET)

NOTES

(1) Sections I to VIII of this chapter are based on BFM, FM22-5; Section IX is based on BFM, FM23-25.

(2) For instructions and additional rules applicable to all close order drill, see chapter 1.

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	III. STEPS AND MARCHINGS-----	2- 2 to 2- 7	5
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SECTION I
GENERAL

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2-1. *DUTIES OF INSTRUCTOR*.—The instructor explains briefly each movement, first executing it himself. He requires the recruits to take the proper positions unassisted and touches them only for the purpose of correction when they are unable to correct themselves. He avoids keeping the recruits too long at any position or movement. Each position or movement should be understood before passing to another. The instructor exacts by degrees the desired precision and uniformity.

2-2. *GROUPING RECRUITS*.—*a*. Recruits are separated into small groups consistent with the available number of trained instructors in order to facilitate individual instruction. Each group is formed as a squad. (See par. 3-2.)

b. As instruction progresses, the recruits are grouped according to proficiency. Those who show a lack of aptitude and quickness are separated from the others and placed under the most experienced drill masters. Care should be taken that men who are naturally inapt are not ridiculed or treated harshly; an officer should carefully superintend the instruction of such men to insure that they are given firm, but quiet and considerate handling.

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2-3. *POSITION OF ATTENTION.*—*a.* Heels on the same line and as near each other as the conformation of the man permits.

b. Feet turned out equally and forming an angle of 45°.

c. Knees straight without stiffness.

d. Hips level and drawn back slightly; body erect and resting equally on hips, chest lifted and arched; shoulders square and falling equally.

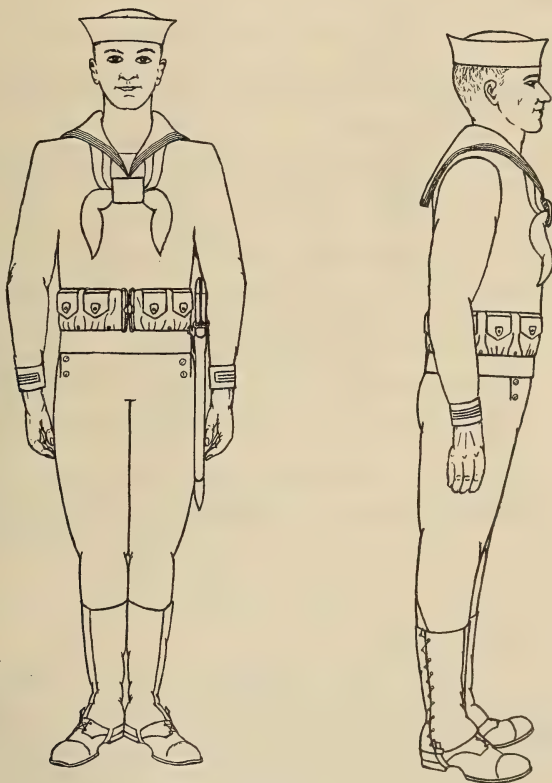


FIGURE 1.—Position of attention.

e. Arms hanging straight down, without stiffness so that the thumbs are along the seams of the trousers; back of the hands out; fingers held naturally.

POSITIONS

f. Head erect and squarely to the front; chin drawn in so that the axis of the head and neck is vertical; eyes straight to the front.

g. Weight of the body resting equally on the heels and the balls of the feet.

h. In assuming the position of attention, the heels are brought together smartly and audibly.

2-4. **RESTS**.—Being at a halt, the commands are: **FALL OUT; REST; AT EASE;** and 1. **Parade**, 2. **REST**.

a. At the command **Fall out**, the men leave the ranks but are required to remain in the immediate vicinity. The men resume their former places at attention at the command **Fall in**. On the march, men will fall in **At ease** unless they were at attention when the command **Fall out** was given.

b. At the command **Rest**, one foot is kept in place. Silence and immobility are not required.

c. At the command **At ease**, the right foot is kept in place. Silence but not immobility is required.

d. At the command of execution, **REST**, of 1. **Parade**, 2. **REST**, move the left foot smartly 12 inches to the left of the right foot keeping the legs straight so that the weight of the body rests equally on both feet. At the same time, clasp the hands behind the back, palms to the rear, thumb and fingers of the right hand clasping the left thumb without constraint; preserve silence and immobility.

e. Being at any of the rests except **Fall out**, to resume the position of attention, the commands are: 1. **Squad**, 2. **ATTENTION**. At the command **Attention** take the position of attention as prescribed in paragraph 2-3.

2-5. **EYES RIGHT OR LEFT**.—The commands are: 1. **Eyes**, 2. **RIGHT (LEFT)**, 3. **Ready**, 4. **FRONT**. At the command **Right**, each man turns his head and eyes to the right. At the command **Front**, the head and eyes are turned to the front.

2-6. **FACINGS**.—All facings are executed from the halt and in the cadence of quick time.

a. To the flank.—(1) The commands are: 1. **Right (left)**, 2. **FACE**. At the command **Face**, slightly raise the left heel and the right toe; face to the right, turning on the right heel, assisted by a slight pressure on the ball of the left foot. Hold the left leg straight without stiffness. (TWO) Place the left foot beside the right.

(2) Execute **Left face** on the left heel in a corresponding manner.

b. To the rear.—The commands are: 1. **About**, 2. **FACE**. At the command **Face**, carry the toe of the right foot a half-foot length to

SALUTE WITH THE HAND

the rear and slightly to the left of the left heel without changing the position of the left foot; weight of the body mainly on the heel of the left foot; right leg straight without stiffness. (TWO) Face to the rear, turning to the right on the left heel and on the ball of the right foot; place the right heel beside the left.

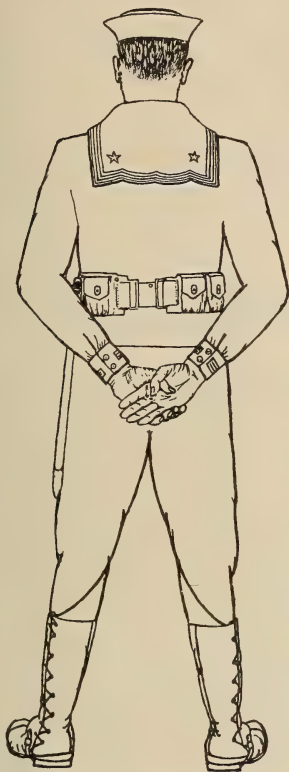


FIGURE 2.—Parade rest.

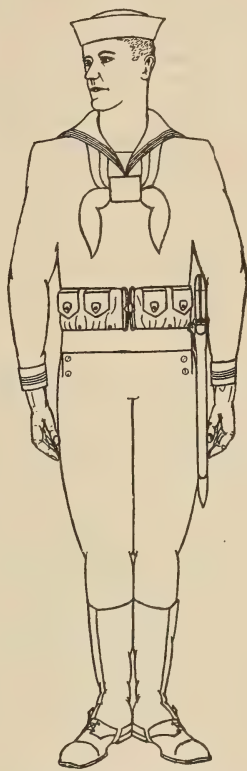


FIGURE 3.—Eyes right.

2-7. *SALUTE WITH THE HAND.*—*a.* The commands are: 1. **Hand**, 2. **SALUTE**. At the command **Salute**, raise the right hand smartly until the tip of the forefinger touches the lower part of the headdress above and slightly to the right of the right eye, thumb and fingers extended and joined, palm to the left, upper arm horizontal, forearm inclined at 45°, hand and wrist straight; at the same time turn the head and eyes toward the person saluted. (TWO) Drop the arm to its normal position by the side in one motion, at the same time turning the head and eyes to the front.

POSITIONS

6. Execute the first position of the hand salute when six paces from the person saluted, or at the nearest point of approach, if more than six paces. Hold the first position until the person saluted has passed or the salute is returned. Then execute the second movement of the hand salute.

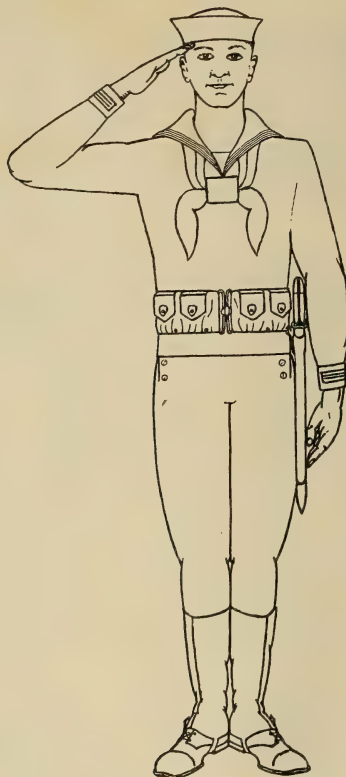


FIGURE 4.—Hand salute.

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STEPS AND MARCHINGS

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2-8. *GENERAL*.—*a*. All steps and marchings executed from the halt, except right step, begin with the left foot.

b. The instructor indicates the proper cadence when necessary by calling “One,” “Two,” “Three,” “Four,” as the left and right foot respectively strike the ground.

2-9. *QUICK TIME*.—Being at a halt, to march forward in quick time, the commands are: 1. **Forward**, 2. **MARCH**. At the command **Forward**, shift the weight of the body to the right leg without perceptible movement. At the command **March**, step off smartly with the left foot and continue the march with 30-inch steps taken straight forward without stiffness or exaggeration of movements. Swing the arms easily in their natural arcs, 6 inches to the front and 3 inches to the rear of the body.

2-10. *DOUBLE TIME*.—*a*. Being at a halt or in march in quick time, to march in double time the commands are: 1. **Double time**, 2. **MARCH**.

(1) If at a halt, at the command **Double time**, shift the weight of the body to the right leg without perceptible movement. At the command **March**, raise the forearms, fingers closed, knuckles out, to a horizontal position along the waistline, take up an easy run with the step and cadence of double time, allowing a natural swinging motion to the arms.

(2) If marching in quick time, at the command **March**, given as either foot strikes the ground, take one more step in quick time and then step off in double time.

STEPS AND MARCHINGS

b. To resume the quick time from double time the commands are: 1. **Quick time**, 2. **MARCH**. At the command **March**, given as either foot strikes the ground, advance and plant the other foot in double time; resume the quick time, dropping the hands by the sides.

2-11. **TO HALT**.—*a.* To halt when marching in quick time, the commands are: 1. **Squad**, 2. **HALT**. At the command **Halt**, given as either foot strikes the ground, execute the halt in two counts by advancing and planting the other foot and then bringing up the foot in rear.

b. To halt when marching in double time, the commands are: 1. **Squad**, 2. **HALT**. At the command **Halt**, given as either foot strikes the ground, advance and plant the other foot as in double time, then halt in two counts as in quick time.

c. To halt from side step the commands are: 1. **Squad**, 2. **HALT**. At the command **Halt**, given as the heels are together, plant the foot next in cadence and come to the halt when the heels are next brought together.

2-12. **TO MARK TIME**.—The commands are: 1. **Mark time**, 2. **MARCH**.

a. Being in march, at the command **March**, given as either foot strikes the ground, advance and plant the other foot; bring up the foot in rear, placing it so that both heels are on line and continue the cadence by alternately raising and planting each foot. The feet are raised 2 inches from the ground.

b. Being at a halt, at the command **March**, raise and plant first the left foot, then the right as prescribed above.

c. Mark time may be executed in either quick time or double time.

d. The halt is executed from mark time as from quick time or double time by taking 2-inch vertical in place of 30-inch horizontal steps.

2-13. **HALF STEP**.—*a.* The commands are: 1. **Half step**, 2. **MARCH**. At the command **March**, take steps of 15 inches in quick time and 18 inches in double time in the same manner as prescribed in paragraphs 2-9 and 2-10.

b. **Forward**, **Half step**, **Halt**, and **Mark time** may be executed one from the other in quick or double time.

c. To resume the full step from half step or mark time the commands are: 1. **Forward**, 2. **MARCH**.

2-14. **SIDE STEP**.—*a.* Being at a halt or marking time the commands are: 1. **Right (left) step**, 2. **MARCH**. At the command **March**, carry the right foot 12 inches to the right; place the left foot

BACK STEP

beside the right, left knee straight. Continue in the cadence of quick time.

b. The side step is executed in quick time from a halt and for short distances only.

2-15. *BACK STEP*.—*a.* Being at a halt or marking time the commands are: 1. **Backward**, 2. **MARCH**. At the command **March**, take steps of 15 inches straight to the rear.

b. The back step is executed in quick time from a halt and for short distances only.

2-16. *TO FACE IN MARCHING*.—The facings in marching are an important part of movements such as, **Column right, Close, Take interval, Extend, etc.**

a. To face to the right in marching and advance from a halt, at the command of execution of the movement, turn to the right on the ball of the right foot and at the same time step off in the new direction with the left foot with a half step, full step, or in double time, as the case may be.

b. To face to the right in marching and advance, being in march, at the command of execution, given as the right foot strikes the ground, advance and plant the left foot, then face to the right in marching and step off in the new direction with the right foot with a half step, full step, or in double time as the case may be.

c. To face to the rear in marching, being in march, the commands are: 1. **To the rear**, 2. **MARCH**. At the command **March**, given as the right foot strikes the ground, advance and plant the left foot; turn to the right about on the balls of both feet and immediately step off with the left foot.

2-17. *TO MARCH BY THE FLANK*.—Being in march, the commands are: 1. **By the right (left) flank**, 2. **MARCH**. At the command **March**, given as the right foot strikes the ground, advance and plant the left foot, then face to the right in marching and step off in the new direction with the right foot.

2-18. *TO CHANGE STEP*.—The commands are: 1. **Change step**, 2. **MARCH**.

a. Being in march in quick time, at the command **March**, given as the right foot strikes the ground, advance and plant the left foot; plant the toe of the right foot near the heel of the left and step off with the left foot.

b. Execute the change on the right foot similarly, the command **March** being given as the left foot strikes the ground.

STEPS AND MARCHINGS

2-19. *TO MARCH OTHER THAN AT ATTENTION.*—The commands are: 1. ***Route step***, 2. ***MARCH***; or 1. ***At ease***, 2. ***MARCH***.

a. 1. ***Route step***, 2. ***MARCH***. At the command ***March***, men are not required to march at attention, in cadence, or to maintain silence.

b. 1. ***At ease***, 2. ***MARCH***. At the command ***March***, men are not required to march at attention or in cadence but they will maintain silence.

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Being at order arms: 1. <i>Unfix</i> , 2. <i>BAYONETS</i>	2-45	26

2-20. *INSTRUCTION OF RECRUIT*.—As soon as practicable, the recruit is taught the use, care, and nomenclature of the rifle. When fair progress has been made in instruction without arms, he is taught the manual of arms. Instruction without arms and with arms should alternate.

2-21. *RULES GOVERNING CARRYING OF RIFLES*.—Except where otherwise indicated, these rules will be applicable alike to the U. S. rifle, caliber .30, M1903, and to the U. S. rifle, caliber .30, M1.

a. (1) The U. S. rifle, caliber .30, M1903, is not carried with cartridges in either the chamber or the magazine except when specifically ordered. When so loaded or when supposed to be loaded, it

MANUAL OF ARMS, THE RIFLE

is habitually carried locked; that is, with the safety lock turned to the "safe." At all other times it is carried unlocked with the trigger pulled. The cut-off is kept turned off except when cartridges are actually used.

(2) Whenever troops equipped with the U. S. rifle, caliber .30, M1903, are formed under arms, pieces are immediately inspected at the commands: 1. **Inspection**, 2. **ARMS**. A similar inspection is made before dismissal. If cartridges are found in the chamber or magazine they are removed and placed in the belt.

b. (1) The U. S. rifle, caliber .30, M1, is not carried with cartridges in either the chamber or the receiver except when specifically ordered. When so loaded or when supposed to be loaded, it is habitually carried locked; that is, with the safety in its rearmost position, inside the trigger guard.

(2) Whenever troops equipped with the U. S. rifle, caliber .30, M1, are formed under arms, pieces are immediately inspected at the commands: 1. **Inspection**, 2. **ARMS**, 3. **LOCK PIECES**. At the command **Lock pieces**, each man in ranks closes the bolt, sets the safety of his piece in its rearmost position, and resumes **Port arms**. Rifles are again inspected at dismissal by the commands: 1. **Inspection**, 2. **ARMS**, 3. **UNLOCK PIECES**. At the command **Unlock pieces**, each man in ranks closes the bolt, sets the safety of his piece in its foremost position, pulls the trigger, and resumes **Port arms**. If cartridges are found in the chamber or receiver, they are removed and placed in the belt. The procedure prescribed for these inspections is intended first, to insure that U. S. rifles, caliber .30, M1, in the hands of troops are carried cocked and locked; second, to insure that hammers are released on unloaded pieces not in use to prevent damage from long continued compression of the hammer springs.

c. The bayonet is fixed only when so ordered.

d. **Fall in** is executed with the rifle at the **Order arms**.

e. (1) Before starting any movement for troops armed with rifles, the commands, 1. **Right shoulder (sling)**, 2. **ARMS**, are given *before* the command for movement.

(2) Movements for short distances may be executed **At the trail** by prefacing the preparatory command with the words "at trail," as 1. **At trail, forward**, 2. **MARCH**. The trail is taken at the command **March**.

(3) Weapons such as the automatic rifle, light machine gun, light mortar, etc., which have no manual of arms are slung from the right shoulder at the command of execution, **ARMS**, of 1. **Right shoulder**, 2. **ARMS**. They are kept slung until the command **Rest** or **At ease**.

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In long halts at attention, the men carrying such equipment may be directed to "unsling arms."

f. When the facings, alignments, open and close ranks, side step, back step, forming for shelter tents, extending and closing are executed from the order, the weapon is brought to the trail while in motion and the order resumed on halting. The position of **Trail arms** is taken at the command of execution in each case.

g. At the command **Halt**, men armed with the rifle remain at the position of right (left) shoulder arms until the command: 1. **Order**, 2. **ARMS**, is given.

h. In double time under arms, a disengaged hand is held as when without arms.

2-22. **RULES GOVERNING EXECUTION OF THE MANUAL OF ARMS.**—Except where otherwise indicated, these rules will be applicable alike to the U. S. rifle, caliber .30, M1903, and to the U. S. rifle, caliber .30, M1.

a. In all positions of the left hand at the balance, the thumb clasps the rifle; the sling is included in the grasp of the hand. In describing the manual of arms, the term "at the balance" refers to points on rifles as follows:

(1) *U. S. rifle, caliber .30, M1903.*—The center of the rear sight leaf.

(2) *U. S. rifle, caliber .30 M1.*—A point just forward of the trigger housing.

b. In all positions of the rifle, diagonally across the body, the barrel is up, butt in front of the right hip, barrel crossing opposite the junction of the neck with the left shoulder. The rifle is grasped at the balance with the left hand, palm toward the body, wrist straight.

c. The cadence of the motions is that of quick time. Recruits are first required to give their whole attention to the details of the motions, the cadence being gradually acquired as they become accustomed to handling their rifles. The instructor may require them to count aloud in cadence with the motions.

d. (1) The manual is not executed in marching except to pass from right shoulder to left shoulder or port arms and the reverse in marching at attention. These movements may be used to add interest to the drill or to prevent fatigue in long marches at attention.

(2) The manual is taught at a halt and the movements may, for the purpose of instruction, be divided into motions and executed in detail. In this case, the command of execution determines the prompt execu-

MANUAL OF ARMS, THE RIFLE

tion of the first motion, and the commands *Two, Three, Four*, that of the other motions.

(3) To execute the movement in detail, the instructor first cautions, "By the numbers." All movements divided into motions are then executed as above explained until he cautions, "Without the numbers."

e. (1) Any appropriate position of the manual of arms may be ordered from a previous position by giving the suitable commands.

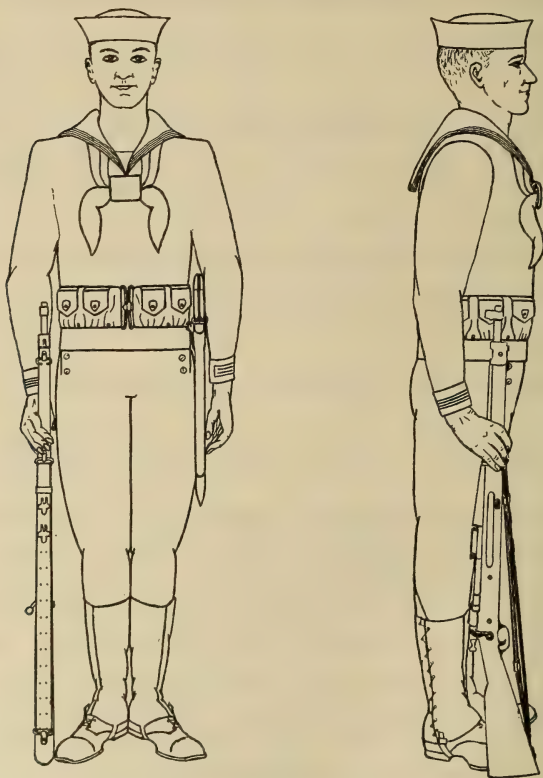


FIGURE 5.—Position of order arms.

(2) Under exceptional conditions of weather and fatigue, the rifle may be carried as directed.

2-23. *POSITION OF ORDER ARMS*.—The butt of the rifle rests on the ground, barrel to the rear, toe of the butt on line with the toe of, and touching the right shoe, right hand holding the rifle between the thumb and fingers, left hand as in position of attention without arms.

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2-24. *BEING AT ORDER ARMS.*—1. *Trail*, 2. *ARMS.* At the command *Arms*, raise the rifle and incline the muzzle forward so that the barrel makes an angle of about 15° with the vertical, the right arm slightly bent.

2-25. *BEING AT TRAIL ARMS.*—1. *Order*, 2. *ARMS.* At the command *Arms*, lower the rifle with the right hand and resume the order.



FIGURE 6.—Position of trail arms.

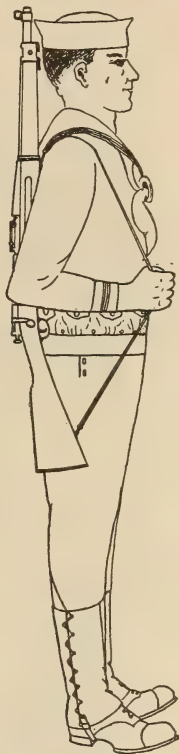


FIGURE 7.—Position of sling arms.

2-26. *BEING AT ORDER ARMS TO SLING ARMS, AND BEING AT SLING ARMS TO UNSLING ARMS.*—*a. SLING ARMS.* This movement is not executed in cadence and applies to any rifle, automatic rifle, light machine gun, light mortar, etc. Loosen the sling, if not already loosened, and in the most convenient manner assume the position shown in figure 7. This position is authorized for long parades, long reviews, and for occasions when the prolonged holding of the rifle becomes a hardship on the troops. When used in ceremonies the bayonet may be fixed.

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b. 1. Unsling, 2. ARMS, 3. Adjust, 4. SLINGS. At the command **Arms**, pieces are unslung. At the command **Slings**, slings are adjusted to the drill position. This adjustment of the sling will be made before precise movements of the manual are to be executed.

2-27. *BEING AT ORDER ARMS: 1. Port, 2. ARMS.*—At the command **Arms**, raise the rifle with the right hand and carry it diagonally across the front of the body until the right hand is in front of

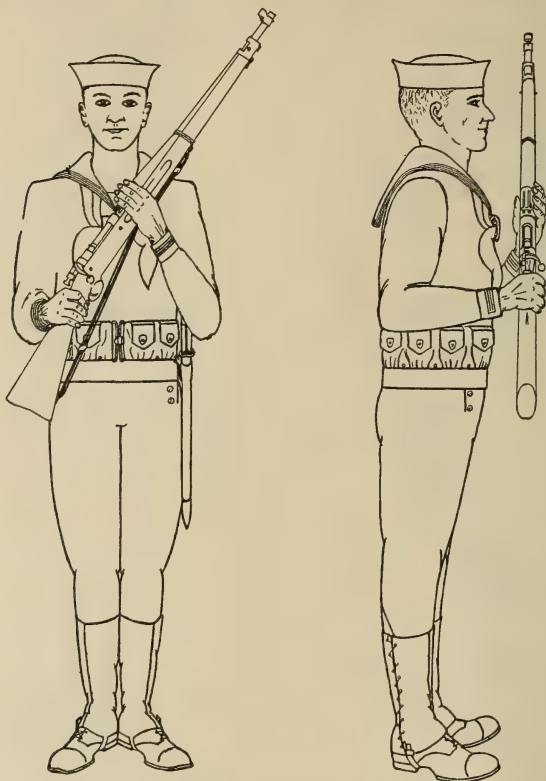


FIGURE 8.—Position of port arms.

and slightly to the left of the chin, so that the barrel is up, butt in front of the right hip, barrel crossing opposite the junction of the neck with the left shoulder. At the same time, grasp the rifle at the balance with the left hand, palm toward the body, wrist straight. (TWO) Carry the right hand to the small of the stock, grasping it, palm down, holding right forearm horizontal; left elbow resting against the body; the rifle in a vertical plane parallel to the front. (See fig. 8.)

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2-28. *BEING AT ORDER ARMS: 1. Present, 2. ARMS.*—At the command **Arms**, with the right hand carry the rifle in front of the center of the body, barrel to the rear and vertical, grasp it with the left hand at the balance, forearm horizontal and resting against the body. (TWO) Grasp the small of the stock with the right hand. (See fig. 9.)

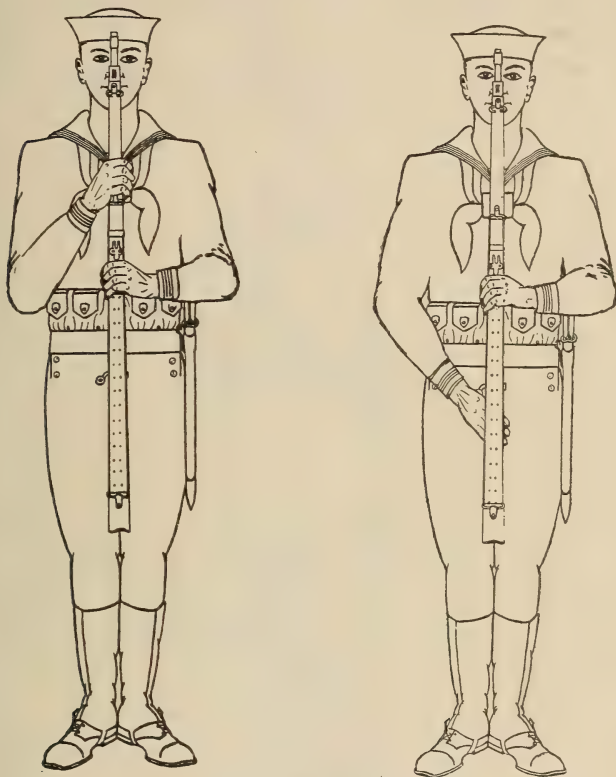


FIGURE 9.—Execution of present arms.

2-29. *BEING AT PRESENT OR PORT ARMS: 1. Order, 2. ARMS.*—At the command **Arms**, let go of the rifle with the right hand and regrasp the piece between the upper sling swivel and stacking swivel. (TWO) Let go of the rifle with the left hand, lower the piece to the right so that the butt is 3 inches from the ground, barrel to the rear, left hand with the fingers extended and joined steadying the rifle, forearm and wrist straight and inclining downward. (THREE) Complete the order by lowering the rifle gently to the

MANUAL OF ARMS, THE RIFLE

ground with the right hand. Cut away the left hand smartly to the side. Allowing the rifle to drop to the ground forcibly injures the rifle and is prohibited.

2-30. *BEING AT ORDER ARMS.*—*a. U. S. rifle, caliber .30, M1903.*—1. **Inspection**, 2. **ARMS.** At the command **Arms**, take the position of **Port arms**. Seize the bolt handle with the thumb and forefinger of the right hand, turn the handle up, draw the bolt back,

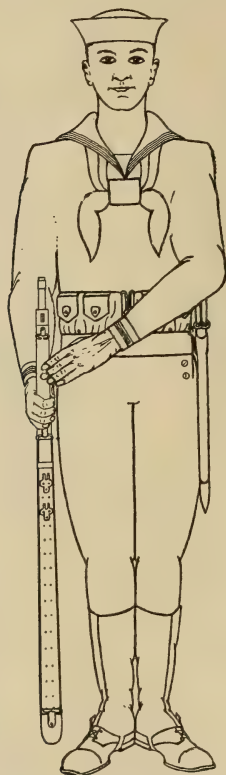


FIGURE 10.—Next to last position of order arms.

lower the head and eyes sufficiently to glance into the magazine. Having found the magazine empty, or having emptied it, raise the head and eyes to the front.

b. U. S. rifle, caliber .30, M1.—1. **Inspection**, 2. **ARMS.** At the command **Arms**, take the position of **Port arms**. With the fingers of the left hand closed, place the left thumb on the operating rod handle and push it smartly to the rear until it is caught by the operating rod catch; at the same time lower the head and eyes sufficiently

MANUAL OF ARMS, THE RIFLE

to glance into the receiver. Having found the receiver empty, or having emptied it, raise the head and eyes to the front, at the same time regrasp the piece with the left hand at the balance.

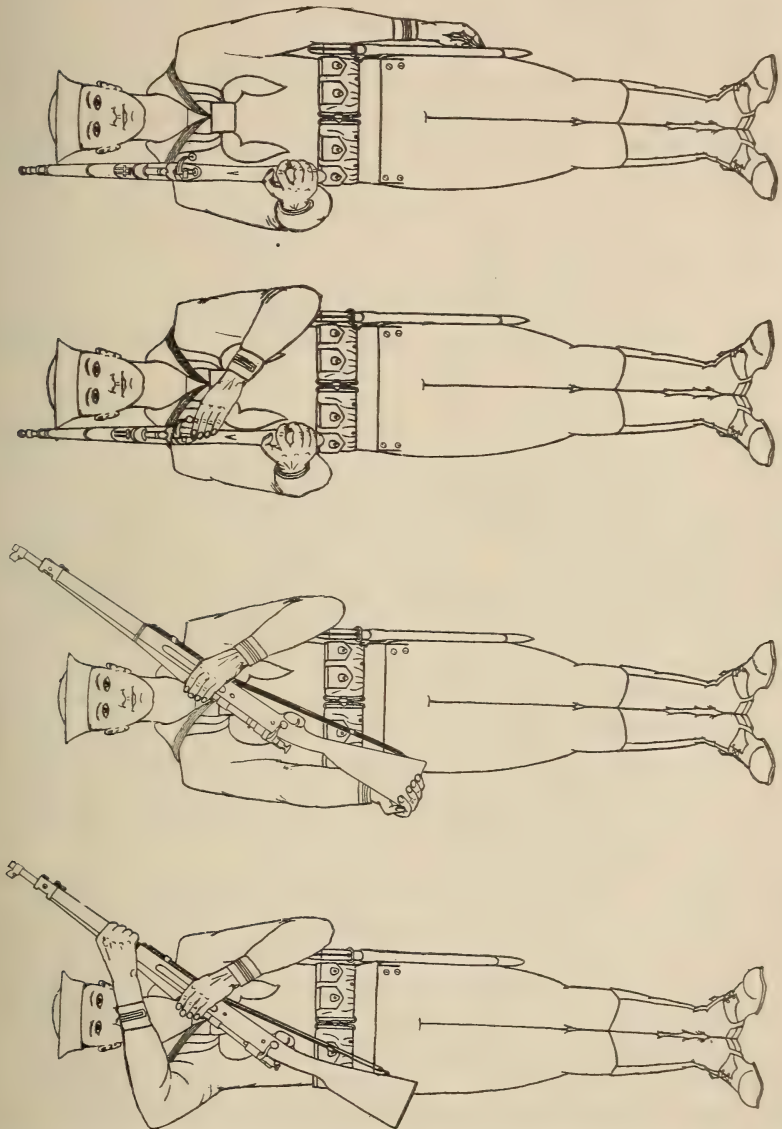


FIGURE 11.—Execution of right shoulder arms.

2-31. BEING AT INSPECTION ARMS.—*a. U. S. rifle, caliber 30, M1903.*—1. **Order (right shoulder, port), 2. ARMS.** At the

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preparatory command, push the bolt forward, turn the handle down, pull the trigger, and resume **Port arms**. At the command **Arms**, complete the movement ordered.

b. U. S. rifle, caliber .30, M1.—1. **Lock pieces**, 2. **Order (right shoulder)**, 3. **ARMS**, or 1. **Unlock pieces**, 2. **DISMISSED**. At the command **Lock** (or **unlock**) **pieces**, place the right side of the right hand against the operating rod handle with the fingers extended and joined and the thumb on the follower. (TWO) Force the operating rod handle slightly to the rear, depress the follower with the right thumb, and permit the bolt to ride forward about 1 inch over the follower. (THREE) Remove the thumb from the follower and release the operating rod handle. (FOUR) Lock the piece, or unlock the piece and pull the trigger as the case may be (par. 2-21*b* (2)), and resume the position of **Port arms**. After the pieces have been locked or unlocked, as prescribed above, **Order** or **Right shoulder arms** is given or the unit is dismissed.

2-32. **BEING AT ORDER ARMS:** 1. **Right shoulder**, 2. **ARMS**.—At the command **Arms**, raise and carry the rifle diagonally across the body with the right hand as shown in figure 11, at the same time grasp it at the balance with the left hand. (TWO) Regrasp it with the right hand on the butt, the heel between the first two fingers, thumb and fingers closed on the stock. (THREE) Without changing the grasp of the right hand, place the rifle on the right shoulder, barrel up and inclined at an angle of about 45° from the horizontal, trigger guard in the hollow of the shoulder, right elbow against the side, forearm horizontal, the rifle in a vertical plane perpendicular to the front; carry the left hand, thumb and fingers extended and joined, to the small of the stock, first joint of the forefinger touching the cocking piece (or, for the M1 rifle, touching the rear end of the receiver), wrist straight, and elbow down. (FOUR) Cut away the left hand smartly to the side (see figure 11).

2-33. **BEING AT RIGHT SHOULDER ARMS:** 1. **Port**, 2. **ARMS**.—At the command **Arms**, press the butt down quickly and throw the rifle diagonally across the body, at the same time turning it to the left so as to bring the barrel up, the right hand retaining its grasp on the butt, the left grasping the rifle at the balance. (TWO) Change the right hand to the small of the stock.

2-34. **BEING AT RIGHT SHOULDER ARMS.**—1. **Order**, 2. **ARMS**. At the command **Arms**, press the butt down quickly and throw the rifle diagonally across the body, the right hand retaining the grasp on the butt, the left hand grasping the rifle at the balance. Then execute **Order arms** as described in paragraph 2-29.

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2-35. *BEING AT PORT ARMS.*—1. **Right shoulder**, 2. **ARMS.** At the command **Arms**, change the right hand to the butt as described in paragraph 2-32. (TWO), (THREE) Execute the last two movements as in **Right shoulder arms** from **Order arms**.

2-36. *BEING AT ORDER ARMS.*—1. **Parade**, 2. **REST.** At the command **Rest**, move the left foot smartly 12 inches to the left of the right foot, keeping the legs straight, so that the weight of the body rests equally on both feet. At the same time incline the muzzle of the rifle to the front, the right arm extended, right hand

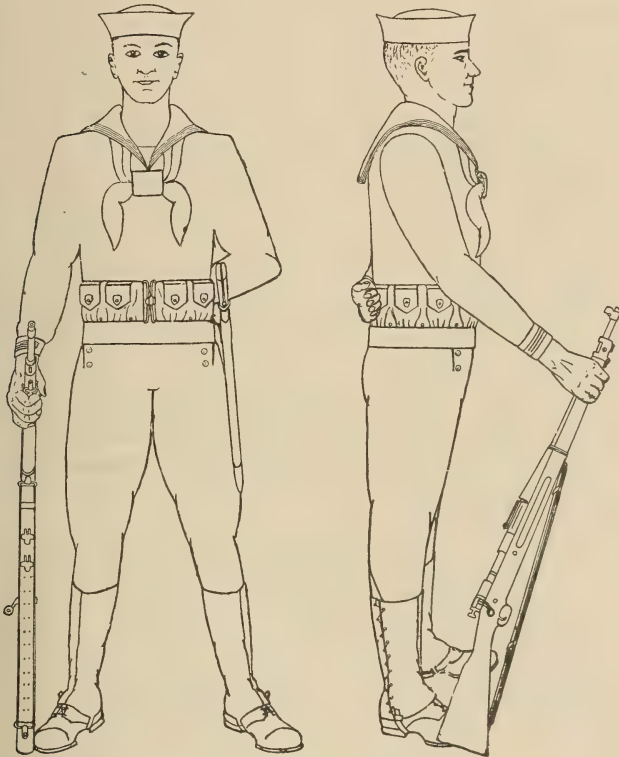


FIGURE 12.—Position of parade rest.

grasping the rifle just below the upper band. Hold the left hand behind the body, resting in the small of the back, palm to the rear (see fig. 12).

2-37. *BEING AT PARADE REST.*—1. **Squad**, 2. **ATTENTION.** At the command **Attention**, resume the position of **Order arms**.

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2-38. *BEING AT RIGHT SHOULDER ARMS.*—1. *Left shoulder*, 2. *ARMS.* At the command *Arms*, execute *Port arms* in two counts as described in paragraph 2-33. (THREE) Let go of the rifle with the left hand and with the right hand still grasping the small of the stock place it on the left shoulder, barrel up, trigger guard in the hollow of the shoulder; at the same time grasp the butt with the left hand, heel between the first and second fingers, thumb and fingers closed on the stock, left forearm horizontal, left elbow against the side, the rifle in a vertical plane perpendicular to the front. (FOUR) Drop the right hand quickly to the right side.

2-39. *BEING AT LEFT SHOULDER ARMS.*—*a.* 1. *Port*, 2. *ARMS.* At the command *Arms*, grasp the rifle with the right hand at the small of the stock. (TWO) Let go with the left hand and at the same time carry the piece with the right hand to the position of *Port arms* and then regrasp it with the left.

b. *Left shoulder arms* may be ordered directly from the *Order*, *Right shoulder*, or *Present*. At the command *Arms*, execute *Port arms* and continue in cadence to the position ordered.

2-40. *BEING AT LEFT SHOULDER ARMS.*—1. *Right shoulder*, 2. *ARMS.* At the command *Arms*, execute *Port arms* as described in paragraph 2-39, and then *Right shoulder arms* as described in paragraph 2-35.

2-41. *BEING AT LEFT SHOULDER ARMS.*—1. *Order*, 2. *ARMS.* At the command *Arms*, execute *Port arms* as described in paragraph 2-39 and complete the movement of *Order arms* as described in paragraph 2-29.

2-42. *BEING AT ORDER OR TRAIL ARMS.*—1. *Rifle*, 2. *SALUTE.* At the command *Salute*, carry the left hand smartly to the right side, palm of the hand down, thumb and fingers extended and joined, forearm and wrist straight, first joint of forefinger between the stacking swivel and the muzzle as the conformation of the man permits, and look toward the person saluted. (TWO) Cut away the left hand smartly to the side; turn the head and eyes to the front.

2-43. *BEING AT RIGHT SHOULDER ARMS.*—1. *Rifle*, 2. *SALUTE.* At the command *Salute*, carry the left hand smartly to small of the stock, forearm horizontal, palm of the hand down, thumb and fingers extended and joined, first joint of the forefinger touching end of cocking piece (or, for the M1 rifle, touching the

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rear end of the receiver); look toward the person saluted. (TWO) Cut away the left hand smartly to the side; turn the head and eyes to the front.

2-44. *BEING AT ORDER ARMS.*—1. **Fix**, 2. **BAYONETS**. At the command *Bayonets*—

a. If the bayonet scabbard is carried on the belt, move the muzzle of the rifle to the left front and grasp the rifle below the stacking swivel with the left hand; grasp the bayonet with the right hand,

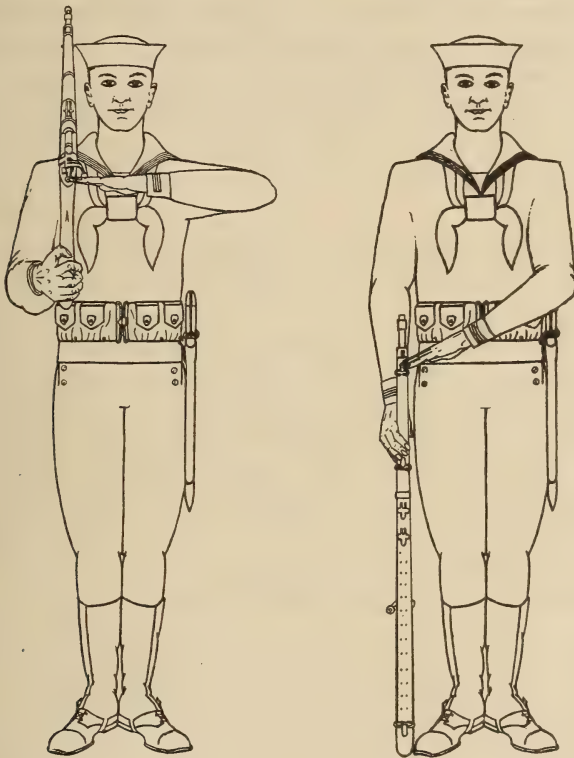


FIGURE 13.—Rifle salute at right shoulder arms and at order arms.

back of the hand toward the body; pressing the spring with the forefinger, draw the bayonet from the scabbard and fix it on the barrel, glancing at the muzzle; resume the order.

b. If the bayonet is carried on the haversack, draw and fix the bayonet in the most convenient manner.

c. These movements are not executed in cadence.

2-45. *BEING AT ORDER ARMS*.—1. *Unfix*, 2. *BAYONETS*.
At the command *Bayonets*—

a. If the bayonet scabbard is carried on the belt, take the position for fixing bayonets; grasp the handle of the bayonet with the right hand, pressing the spring, raise the bayonet until the handle is about 12 inches above the muzzle of the rifle; drop the point to the left, back of the hand toward the body and, glancing at the scabbard, return the bayonet, the blade passing between the left arm and the body; regrasp the rifle with the right hand and resume the order.

b. If the bayonet scabbard is carried on the haversack, take the bayonet from the rifle as described above and return it to the scabbard in the most convenient manner.

c. These movements are not executed in cadence.

SECTION V

LOADINGS AND FIRINGS, THE RIFLE

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To unload.....	2-48	29
To fire the rifle.....	2-49	29
To fire by volley.....	2-50	30
To cease firing.....	2-51	30

2-46. *GENERAL RULES*.—Except where otherwise indicated, these rules will be applicable alike to the U. S. rifle, caliber .30, M1903, and the U. S. rifle, caliber .30, M1.

a. For ceremonial firing, the front rank only of units larger than a squad executes the loading and firing. A squad is always formed in line preliminary to such firing.

b. Rifles, caliber .30, M1903, are loaded and locked before any orders for firing are given. Rifles, caliber .30, M1, are loaded while locked. (See par. 2-21*b* (2)).

c. Except during firing, if rifles have been ordered loaded and locked, they are kept loaded and locked without command until the command *Unload*, or 1. *Inspection*, 2. *ARMS*. During firing, fresh clips will be inserted when the magazine or clip is exhausted.

d. Except when used as a single loader, the U. S. rifle, caliber .30, M1, is habitually loaded by placing a full clip of eight cartridges in the receiver.

2-47. *TO LOAD*.—a. The unit being in any formation, standing at a halt, the commands are: 1. *With ball (blank, dummy, guard) cartridges*, 2. *LOAD*.

(1) *U. S. rifle, caliber .30, M1903*.—At the command *Load*, each front rank rifleman faces half right and carries the right foot 12 inches to the right and to such position as will insure the greatest firmness and steadiness of the body; raises or lowers the rifle and drops it into the left hand at the balance, left thumb extending along the stock, muzzle pointed into the air at an angle of 45°, and turns the cut-off up. With the right hand he turns up the bolt and draws it back; takes a loaded clip and inserts the end in the clip slots; places his thumb on the powder space of the top cartridge, the fingers extending around the rifle and tips resting on the magazine floor plate; forces the cartridges into the magazine by pressing down with the thumb; removes the clip; thrusts the bolt home, turning down the

LOADINGS AND FIRINGS, THE RIFLE

handle; turns the safety lock to the "safe" and carries the hand to the small of the stock. Automatic riflemen do not execute the ceremonial loadings or firings.

(2) *U. S. rifle, caliber .30, M1.*—At the command **Load**, each front rank rifleman faces half right and carries his right foot 12 inches to the right and to such position as will secure the greatest firmness and steadiness of the body, raises or lowers the rifle and drops it into the left hand at the balance, right hand at the small of the stock, muzzle in the air at an angle of 45°. With the forefinger of the right hand, he pulls the operating rod handle smartly to the rear until the operating rod is caught by the operating rod catch. With his right hand he takes a fully loaded clip and places it on top of the follower. He places the right side of his right hand against the operating rod handle and with his thumb presses the clip down into the receiver until it engages the clip latch. He swings his thumb to the right so as to clear the bolt in its forward movement. He releases the operating rod handle. He then pushes forward on the operating rod handle with the heel of his right hand to make certain of complete closing of the bolt and carries his right hand to the small of the stock. Automatic riflemen do not execute the ceremonial loadings and firings.

b. For instruction in loading, the commands are: 1. **Simulate**, 2. **LOAD**.

(1) *U. S. rifle, caliber .30, M1903.*—At the command **Load**, execute loading as described in *a* (1) above, except that the cut-off remains "off" and the handling of the cartridge is simulated.

(2) *U. S. rifle, caliber .30, M1.*—At the command **Load**, execute loading as described in *a* (2) above except that the handling of cartridges is simulated.

c. (1) The U. S. rifle, caliber .30, M1903, may be used as a single loader by turning the cut-off to "off". At the command **Load**, the magazine may be filled in whole or in part by pressing cartridges singly down and back until they are in the proper place. The use of the rifle as a single loader is, however, to be regarded as exceptional.

(2) To use the U. S. rifle, caliber .30, M1, as a single loader, at the command **Load**, take the position of **Load** and open the bolt. With the right hand, place one round in the chamber, seating it in place with the thumb. With the side of the right hand against the operating rod handle and the fingers extended and joined, force the operating rod handle slightly to the rear, depress the follower with the right thumb, and permit the bolt to ride forward about 1 inch over the follower. Then remove the thumb from the follower, release the operating rod

TO UNLOAD

handle and push forward on the operating rod handle with the heel of the hand to be certain that the bolt is completely closed. Carry the right hand to the small of the stock.

2-48. *TO UNLOAD*.—Being in any formation, the command is: **UNLOAD**.

a. U. S. rifle, caliber .30, M 1903.—At the command **Unload**, take the position of **Load**, turn the safety lock up, and move the bolt alternately backward and forward until all the cartridges are ejected. After the last cartridge is ejected, the chamber is closed by first thrusting the bolt forward slightly to free it from the stud holding it in place when the chamber is opened, pressing the follower down and back to engage it under the bolt, and then thrusting the bolt home. The trigger is then pulled, the cartridges are picked up, cleaned, and returned to the belt, and the rifle is brought to the order.

b. U. S. rifle, caliber .30, M1.—At the command **Unload**, take the position of **Load**. Hook the right thumb over the operating rod handle, pull and hold the operating rod in the extreme rear position. Hold the rifle with the right hand, thumb on operating rod handle, fingers around trigger guard. Steady the rifle by pressing the stock against the right hip. Place the left hand over the receiver and release the clip latch with the left thumb. Catch the ejected clip in the left hand, return the clip to the belt, return the left hand to the balance. Place the right side of the right hand against the operating rod handle and force the operating rod slightly to the rear. Depress the follower with the right thumb and permit the bolt to ride forward about 1 inch over the follower. Remove the thumb from the follower and release the operating rod handle. Bring the rifle to the order.

2-49. *TO FIRE THE RIFLE*.—*a. U. S. rifle, caliber .30, M1903, fully loaded with ball (blank or guard) ammunition*.—Squeeze the trigger for each shot. After each shot draw back and thrust home the bolt with the right hand, leaving the safety lock turned up to the “ready.”

b. U. S. rifle, caliber .30, M1.—(1) *Fully loaded with clips of ball ammunition*.—Squeeze the trigger for each shot. When the eighth shot has been fired, the clip will be ejected automatically and the bolt will remain open for the insertion of a new clip.

(2) *Fully loaded with clips of blank or guard ammunition*.—Squeeze the trigger for each shot. After each shot, pull the operating rod handle to the rear with the right forefinger and release it. Push forward on the operating rod handle with the heel of the right hand to insure that the bolt is fully closed.

LOADINGS AND FIRINGS, THE RIFLE

2-50. *TO FIRE BY VOLLEY*.—*a*. Being in firing formation with rifles loaded, the commands are: 1. **Front rank**, 2. **Ready**, 3. **AIM**, 4. **Squad**, 5. **FIRE**. (For ceremonial purposes, blank ammunition is used and only the front rank executes the commands.)

(1) *U. S. rifle, caliber .30, M1903*.—At the command **Ready**, take the position of **Load**, if not already in that position, and turn the safety lock to the “ready.” At the command **Aim**, raise the rifle with both hands, butt placed and held firmly against the shoulder, left hand well under the rifle grasping it at or in front of the balance, rifle resting in the palm of the left hand, right elbow at the height of the shoulder, right cheek held firmly against the stock as far forward as it can be placed without straining. The rifle is raised 45° from the horizontal or, if ordered, at the horizontal. The left eye is closed, right eye looking through the notch of the rear sight. At the command **Fire**, the trigger is squeezed rapidly; the rifle is then lowered to the position of **Load** and loaded.

(2) *U. S. rifle, caliber .30, M1*.—At the command **Ready**, take the position of **Load**, if not already in that position. At the command **Aim**, raise the rifle with both hands, butt placed and held firmly against the shoulder, left hand well under the rifle grasping it at or in front of the balance, rifle resting in the palm of the left hand, right elbow at the height of the shoulder, right cheek held firmly against the stock as far forward as it can be placed without straining, and press the safety lock to its forward position with the trigger finger. The rifle is raised 45° from the horizontal or, if ordered, at the horizontal. The left eye is closed, right eye looking over the rear sight. At the command **Fire**, the trigger is squeezed rapidly; the rifle is then lowered to the position of **Load** and loaded.

b. To continue the firing, the commands are: 1. **Aim**, 2. **Squad**, 3. **FIRE**.

(1) *U. S. rifle, caliber .30, M1903*.—Each command is executed as previously explained. **Load** (from the magazine) is executed by drawing back and thrusting home the bolt with the right hand, leaving the safety lock turned up to the “ready.”

(2) *U. S. rifle, caliber .30, M1*.—Each command is executed as previously explained. **Load** (from the clip) is executed by pulling the operating rod handle fully to the rear with the right forefinger and releasing it, leaving the “safety” in its forward position.

2-51. *TO CEASE FIRING*.—The command is: **CEASE FIRING**. At the command **Cease firing**, firing stops; rifles not already at the position of **Load** are brought to that position.

SECTION VI

THE AUTOMATIC RIFLE

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2-52: *RULES FOR CARRYING THE AUTOMATIC RIFLE.*—*a.* Except as otherwise prescribed, the automatic rifle is habitually carried slung over the right shoulder, butt down, barrel to the rear, right hand grasping the sling, hand in front of armpit.

b. For marches and field exercises, the automatic rifle may be carried slung over either shoulder.

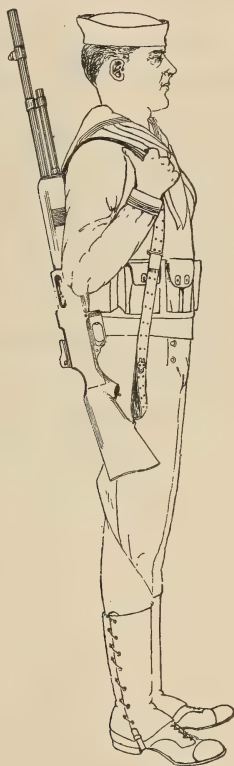


FIGURE 14.—Position of automatic rifle slung over right shoulder.

NOTE.—The submachine gun is slung in a similar manner.

c. When troops are at ease, the automatic rifle is kept slung unless otherwise ordered.

THE AUTOMATIC RIFLE

d. When troops are at rest, the automatic rifle may be unslung and the position of **Order arms** taken.

e. Only the following movements of the manual are executed by the automatic rifleman:

(1) *Parade rest*.—If at **Sling arms**, execute as without arms, keeping the right hand on the sling.

(2) *Inspection arms*.—At the command of execution, grasp the magazine with the left hand, at the same time press the magazine release with the right hand. Withdraw the magazine with the left hand and place it in the belt. Pull back the operating handle with the left hand.

(3) *Being at inspection arms*.—1. **Order (port, right shoulder)**, 2. **ARMS**. At the command of execution, pull the trigger, replace the magazine, and resume the position of **Attention**, the automatic rifle being kept slung.

f. Men armed with the automatic rifle execute inspection arms when a unit is formed or dismissed at the command: 1. **Inspection**, 2. **ARMS**.

g. Men armed with the automatic rifle salute with the hand salute when not in ranks. In ranks they do not salute.

h. For instruction, ceremonies, and drill, the organization commander may, at his discretion, substitute rifles for automatic rifles.

i. When arms are stacked the automatic rifle is placed on the stack as prescribed for a loose piece.

j. The automatic rifle belt is worn whenever the automatic rifle is carried.

SECTION VII

THE SUBMACHINE GUN

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2-53. *RULES FOR CARRYING THE SUBMACHINE GUN (THOMPSON).*—*a.* Except as modified by this section, the rules for carrying the automatic rifle apply to the submachine gun.

b. Only the following movements of the manual are executed by men armed with the submachine gun:

(1) *Parade rest.*—If at **Sling arms**, execute as without arms, keeping the right hand on the sling.

(2) *Inspection arms.*—At the command **Arms**, unsling the gun, grasp the piece with the right hand over the receiver, press up on the magazine catch with the right thumb, withdraw the magazine with the left hand and place in belt. With the left hand grasp the piece by the pistol grip and with the right hand move the actuator to the rear. Change the grasp of the right hand to the small of the stock. After unslinging, the gun is held, as far as practicable, in the same relative position as the rifle at **port arms**. **Inspection arms is a safety precaution.**

(3) *Being at inspection arms:* 1. **Order (Port, Right shoulder, etc.),** 2. **ARMS.**—At the command **Order**, pull the trigger with the right forefinger, grasp the receiver with the right hand, and replace the magazine with the left. Sling the piece at the command **Arms**.

c. The submachine-gun web belt and magazine cases are worn whenever the submachine gun is carried.

SECTION VIII

MANUAL OF THE PISTOL, DISMOUNTED

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2-54. *GENERAL*.—*a*. The movements herein described differ in purpose from the manual of arms for the rifle in that they are not designed to be executed in exact unison. Furthermore, with only a few exceptions, there is no real necessity for their simultaneous execution. They are not therefore planned as a disciplinary drill to be executed in cadence with snap and precision, but merely as simple, quick, and safe methods of handling the pistol. Commands are prescribed for such movements only as may be occasionally executed simultaneously by the squad or larger unit.

b. In general, movements begin and end at the position of *Raise pistol*.

c. Commands for firing, when required, are limited to *Commence firing* and *Cease firing*.

d. Officers and enlisted men armed with the pistol remain at the position of attention during the manual of arms, except when their units are presented to their commanders or are presented during ceremonies, at retreat, and at guard mounting. In such cases they execute the hand salute at the command of execution, *ARMS*, of 1. *Present*, 2. *ARMS*, and resume the position of attention at the command of execution of the next command.

e. Men armed with the pistol execute inspection pistol when a unit is formed or dismissed at the command: 1. *Inspection*, 2. *ARMS*.

f. Whenever the pistol is carried mounted the lanyard will be used. The lanyard should be of such length that the arm may be fully extended without constraint.

2-55. *TO RAISE PISTOL*.—The commands are: 1. *Raise*, 2. *PISTOL*. At the command *Pistol*, unbutton the flap of the holster with the right hand and grasp the stock, back of the hand outward. Draw the pistol from the holster; reverse it, muzzle up, the thumb and

MANUAL OF THE PISTOL, DISMOUNTED

last three fingers holding the stock, the forefinger extended outside the trigger guard, the barrel of the pistol to the rear and inclined to the front at an angle of 30°, the hand as high as, and 6 inches in front of, the point of the right shoulder. This is the position of *Raise pistol*.

2-56. *TO WITHDRAW THE MAGAZINE*.—Without lowering the right hand, turn the barrel slightly to the right; press the magazine catch with the right thumb and with the left hand remove the magazine. Place it in the belt or pocket.

2-57. *TO OPEN THE CHAMBER*.—Withdraw the magazine and resume the position of *Raise pistol*. Without lowering the right hand, grasp the slide with the thumb and the first two fingers of the left hand (thumb on left side of slide and pointing downward); keeping the muzzle elevated, shift the grip of the right hand so that the right thumb engages with the slide stop. Push the slide downward to its full extent and force the slide stop into its notch with the right thumb without lowering the muzzle of the pistol.

2-58. *TO CLOSE THE CHAMBER*.—With the right thumb press down the slide stop and let the slide go forward. Squeeze the trigger.

2-59. *TO INSERT A MAGAZINE*.—Without lowering the right hand, turn the barrel to the right. Grasp a magazine with the first two fingers and thumb of the left hand; withdraw it from the belt and insert it in the pistol. Press it fully home.

2-60. *TO LOAD PISTOL*.—The commands are: 1. *Load*, 2. *PISTOL*. At the command *Pistol*, if a loaded magazine is not already in the pistol, insert one. Without lowering the right hand, turn the barrel slightly to the left. Grasp the slide with the thumb and fingers of the left hand (thumb on right side of slide and pointing upward). Pull the slide downward to its full extent. Release the slide and engage the safety lock.

2-61. *TO UNLOAD PISTOL*.—The commands are: 1. *Unload*, 2. *PISTOL*. At the command *Pistol*, withdraw the magazine. Open the chamber as prescribed in paragraph 2-57. Glance at the chamber to verify that it is empty. Close the chamber. Take the position of *Raise pistol* and squeeze the trigger. Then insert an empty magazine.

2-62. *TO INSPECT PISTOL*.—The commands are: 1. *Inspection*, 2. *PISTOL*. At the command *Pistol*, withdraw the magazine. Open the chamber as prescribed in paragraph 2-57. Take the position of *Raise pistol*. The withdrawn magazine is held in the open left hand at the height of the belt. After the pistol has been in-

TO RETURN PISTOL

spected, or at the command 1. **Return**, 2. **PISTOL**, close the chamber, take the position of **Raise pistol**, and squeeze the trigger. Insert an empty magazine and execute **Return pistol**.

2-63. **TO RETURN PISTOL**.—The commands are: 1. **Return**, 2. **PISTOL**. At the command **Pistol**, lower the pistol to the holster, reversing it, muzzle down, back of the hand to the right; raise the flap of the holster with the right thumb; insert the pistol in the holster and thrust it home; button the flap of the holster with the right hand.

2-64. **SAFETY PRECAUTIONS**.—*a*. When men are not proficient in the manual of the pistol, or when loaded magazines are being carried in an organization, it is desirable to execute each *step* of **Inspection pistol**, **Load pistol**, and **Unload pistol** by appropriate commands.

b. Except when the trigger is being squeezed after **Inspection pistol**, men should be instructed to keep the forefinger extended outside the trigger guard whenever the pistol is held in the hand.

c. After ball ammunition has been used and prior to dismissal of the unit, each pistol will be inspected by the unit commander to see that it is unloaded. This inspection will be made before closing the chamber in executing the last **Unload** of the drill period.

SECTION IX

THE BAYONET

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2-65. *SCOPE*.—This section prescribes the principles for elementary bayonet training. The only equipment required is the rifle, bayonet, and bayonet scabbard. For advanced bayonet training including the use of special equipment, tests for qualification, and construction of bayonet courses (ranges), reference should be made to War Department Basic Field Manual, FM23-25, Bayonet M-1905, a copy of which is in the possession of officers of the Marine Corps.

2-66. *SPIRIT OF THE BAYONET*.—The spirit of the bayonet is the fighting instinct to kill with the bayonet. It is based on physical courage, superior physical condition, and the knowledge of superior skill in the use of the bayonet. It must be developed in the individual by the instructor to a degree where it becomes an overwhelming impulse to close with and destroy the enemy. The spirit of the bayonet is the essence of the spirit of the assault; without it the bayonet assault will fail.

2-67. *BAYONET AN OFFENSIVE WEAPON*.—The bayonet is essentially an offensive weapon. The individual must rush straight at an opponent with the point threatening his throat and deliver the

THE BAYONET

thrust wherever an opening presents itself. Emphasis will be placed upon the execution of a vigorous, aggressive, violent attack, rather than upon the refinements of bayonet fencing.

2-68. *GENERAL RULES.*—*a.* Scabbards will not be removed from the bayonets except for thrusting against dummies.

b. The short thrust naturally follows the long thrust. When executing these movements in rapid succession, the withdrawal position after a long thrust is the starting position for a short thrust.

c. When practicing long thrust or short thrust alone, the rifle is snapped back to guard from the withdrawal position.

d. The withdrawal, once taught, will be made after every thrust.

e. Ranks working together will always be far enough apart to prevent accidents when thrusts are being made.

2-69. *SIZE OF CLASS.*—The maximum number of untrained men for one instructor is 20. Better results will be obtained with a class of 10. Each untrained man requires individual instruction and supervision, and with a large class this is impossible.

2-70. *FORMATION FOR BAYONET TRAINING.*—*a.* *The group being in two ranks, to form for bayonet training the command is:* 1. **Form for bayonet training**, 2. **MOVE**. At the command **Move**, the man in the rear rank, who has been previously designated as the base, assumes the position of guard. The remainder of the men in the rear rank run to the right and left, respectively, face to the front at three-pace intervals, and assume the position of guard. Each front-rank man runs by the shortest route to a position ten paces from and immediately in front of his rear-rank man, faces about, and assumes the position of guard. For coach and pupil exercises each front-rank and corresponding rear-rank man form a pair and alternate as coach and pupil.

b. *To assemble, the command is:* 1. **Assemble**, 2. **MARCH**. At the command **March**, the base man assumes the position of attention. All others close in at a run to their original position and assume the position of attention faced to the front.

c. When moving from place to place with bayonet fixed the rifle will be carried at **high port**.

2-71. *SIGNALS.*—*a.* The system of training herein prescribed is based on the direct appeal to the pupil's brain through his eye. In practicing the various movements, the use of signals should be started as early as practicable. Their object is to train the men to see and avail themselves instantly of openings, thus coordinating the eyes

VULNERABLE PARTS OF THE BODY

with the muscles. The signals were devised to supersede the vicious practice of turning bayonet work into a drill by the use of commands, which ignores the training of the pupil's eye, and deadens his initiative. These signals are not mere imitations of the movements they call for; imitations would be of little advantage to the pupil. The idea is to indicate with the coach's hand an opening which the pupil perceives and acts upon.

b. To signal the following positions or movements, the coach will move as indicated:

(1) *Guard*.—Assume the position of guard, left hand at back, right elbow at side, right forearm pointing to front, fist closed.

(2) *Short guard*.—Same as guard, except that the arm is drawn straight to the rear until the fist is at the right side.

(3) *Long thrust*.—Clap that part of the body toward which the pupil is to aim, with the palm of the right hand, fingers apart and extended.

(4) *Short thrust*.—Same as long thrust, except that the fist is closed. If the man with the bayonet is not in the position of short guard or withdrawal from long thrust when he gets the signal, he comes to the position of short guard and executes short thrust.

2-72. *VULNERABLE PARTS OF THE BODY*.—The point of the bayonet should be directed against the opponent's throat, especially in hand-to-hand fighting, so that the point will enter easily and make a fatal wound on penetrating a few inches. Other vulnerable and frequently exposed parts are the face, chest, lower abdomen, thighs, and, when the back is turned, the kidneys. The armpit, which may be reached with a jab if the throat is protected, is vulnerable because it contains large blood vessels and a nerve center.

2-73. *GUARD*.—*a. Position*.—The point of the bayonet is directed at the base of the opponent's throat, the rifle held firmly but not rigidly with both hands without canting. The left hand, palm against the side of the rifle, is at the most convenient position in front of the rear sight so that the left arm is only slightly bent, the right hand, palm to the left, grasping the small of the stock and the right forearm pressing the upper part of the butt to the body. The legs are separated as in taking a natural step and meeting with resistance; left foot leading, both knees slightly bent, the leading knee more so; feet separated laterally a few inches and both feet flat on the ground, toes pointed as the man naturally points them in walking. The weight is balanced on both legs. The position must not be con-

THE BAYONET

strained in any way, but must be one of aggressiveness, alertness, and readiness to spring forward for instant attack. (See fig. 15.)

b. Common faults.—

- (1) Body inclined backward.
- (2) Left arm too straight or bent too much.
- (3) Right hand held too low and too far back.
- (4) Rifle gripped too rigidly, restraining all freedom of motion.



FIGURE 15.—Guard.

2-74. *SHORT GUARD*.—The left hand grasps the rifle just under the stacking swivel, left arm slightly bent, right hand grasping the small of the stock and resting against the right hip. The point of the bayonet is directed at the base of the opponent's throat. The body, legs, and feet are as in guard.

2-75. *REST*.—To assume the position of rest from guard, lower the piece smartly to the side, butt resting on the ground near the right foot, the right hand grasping the piece above the lower band. The feet remain as in the position of guard.

2-76. *HIGH PORT*.—From the position of guard, without changing the grasp of the hands, carry the piece diagonally across the body until the left wrist is level with and in front of the left shoulder. (See fig. 16.)

2-77. *LONG THRUST*.—*a. Description*.—(1) The rifle is gripped with all possible strength and the point is driven vigorously from the guard position to the full extent of the left arm, quickly extending the whole body to the front, butt running along the inside of and against the right forearm. In delivering the thrust, the right elbow is carried low and the butt remains between the right forearm and the body. The leading knee and ankle are well bent, the rear leg braced with the heel raised, the body inclined well forward.

LONG THRUST

(2) The power of the thrust comes from the right arm, the shoulders, the back, the legs, and weight of the body. The left arm is used more to direct the point of the bayonet. A vigorous thrust delivered



FIGURE 16.—High port.

without advancing throws a man off balance, but in fighting he preserves his balance by stepping in with the rear foot as he thrusts. After a man has learned the details of a thrust, it will always be delivered while advancing. The eyes must be fixed on the object at which the thrust is made. In making thrusts other than straight to the front, the leading foot should move laterally in the direction in which the thrust is made.

(3) The long thrust is made at an opponent at a range of five feet from the attacker's eye. It is very important to be able to judge this distance. In advancing on a dummy, men are prone to let the momentum of the body carry the point through the dummy without making the thrust. This must be guarded against, as is brings the point forward at the same rate of speed as the body, which is fairly uniform and easily judged. The darting forward of the point at the last instant gives a speed that is more difficult to judge. (See fig. 17.)

b. Common faults.—

- (1) Rifle drawn back just before delivering the thrust.
- (2) Elbow and butt of the rifle held as high as or against the right shoulder.

THE BAYONET

- (3) Eyes not directed at the point of attack.
- (4) Leading knee not sufficiently bent.
- (5) Body not inclined far enough forward.
- (6) Point not going forward on a straight line.
- (7) Butt not braced against the inside of the right forearm.
- (8) Thrust made with the arms alone and not with the power of the whole body.



FIGURE 17.—Long thrust.

2-78. *WITHDRAWAL FROM LONG THRUST.*—*a. Description.*—To withdraw the bayonet after a long thrust the left hand is slipped toward the stacking swivel, the rifle is jerked straight back along the line of penetration with the force and weight of the entire body until the right hand is behind the hip, without unduly relaxing the grip on the small of the stock; and guard position is immediately resumed. The weight of the body is carried to the rear by straightening out the leading leg and straightening the body at the waist. The foot in rear will be advanced quickly as the left hand is slipped forward unless proximity to the object transfixed renders it unnecessary. After every thrust, a rapid withdrawal is made before coming to guard. In combat a quick withdrawal is necessary to get ready to meet another enemy, and to prevent the one just stuck from wrenching the rifle from the attacker's hands in falling. (See fig. 18).

b. Common faults.—

- (1) Not making the withdrawal vigorously enough.
- (2) Not drawing bayonet back on line of penetration by letting the butt drop.

2-79. *SHORT THRUST.*—*a.* If at the position of guard, short guard is assumed by shifting the left hand quickly toward the

SHORT THRUST

muzzle and drawing the rifle back until the right hand is against the right hip, without unduly relaxing the grasp on the small of the stock, the butt either up or down, depending on whether a low or a high thrust is to be made; then deliver the thrust vigorously to the



FIGURE 18.—Withdrawal from long thrust.

full extent of the left arm, as in long thrust. When the short thrust immediately follows long thrust, it is delivered from the position of withdrawal from long thrust.

b. The short thrust is used at a range of about three feet, and in close fighting it is the natural thrust when the bayonet has just been withdrawn after long thrust (see fig. 19).



FIGURE 19.—Short thrust.

THE BAYONET

2-80. *WITHDRAWAL FROM SHORT THRUST*.—Withdrawal from short thrust will be practiced in two ways:

- a. In the same manner as withdrawal from long thrust.
- b. If a strong withdrawal is necessary the right hand is slipped up in rear of the left hand after the short thrust has been made (see fig. 20).

2-81. *BAYONET EXERCISES (METHOD OF INSTRUCTION)*.—The following exercises furnish a guide for instruction in the use of the bayonet when time and facilities are limited:

(1) *Elementary instruction*.—

- (a) The instructor will first demonstrate each position or movement and explain all essential points. After each position or move-



FIGURE 20.—Withdrawal from short thrust.

ment is demonstrated the class will assume and practice it and faults will be corrected.

- (b) For this exercise men may be formed in a semicircle or single line facing the instructor.

(2) *Thrusting at stationary opponent*.—

(a) The class having been formed for bayonet training, the instructor directs one rank to stand fast and the other rank to execute the following movements at his direction: **On guard; long thrust; withdraw; short thrust; and withdraw.** He then directs the men executing the thrusts to return to their original positions. Each attacking man directs the point of his bayonet at a vulnerable point of the man opposite him.

- (b) This exercise is then repeated by the other rank.

(3) *Thrusting at moving opponent*.—Similar to the first exercise, except that both ranks execute the movements simultaneously. After

THE PARRY

the last withdrawal the instructor commands: **CHANGE OVER**. At this command both ranks come to **high port**, run past each other right shoulder to right shoulder, turn about, and assume the position of guard.

(4) *Coach-and-pupil method*.—

(a) The class having been individually instructed in each position and movement, and having been formed for bayonet training, the instructor designates one rank as coaches, the other as pupils. Each rank will take turns in acting as coaches and pupils. The coaches place their rifles on the ground.

(b) Men work in pairs, the coach signals and the pupil executes the indicated movements. When proper execution of the movements requires the pupil to advance within bayonet range of the coach, the latter will step to the rear quickly as he gives the signal in order that his pupil may move with the utmost freedom and vigor. The coach will be constantly on the alert to detect and correct the errors of the pupil.

(c) The coach must be speedy and aggressive and encourage his pupil to attack in a determined and offensive manner. The same desire to win which makes the individual close with the enemy in actual combat must drive the bayonet fighter at the target indicated by the coach's signal. The vigor and spirit of the coach will be reflected in the pupil.

2-82. *THE PARRY*.—The rifle and bayonet can be employed to parry a thrust or blow made by an opponent armed with a bayonet, machete, or club. Wide sweeping parries should be avoided as they make openings for the enemy. An effort should always be made to combine parrying the opponent's weapon with a long or short thrust.

2-83. *BUTT STROKES AND ADDITIONAL BAYONET THRUSTS*.—In addition to the long and short thrust described above the following bayonet thrusts and butt strokes may be employed when desirable:

(1) *The jab*.—For this movement the butt of the rifle is near the feet of the bayonet man. The point of the bayonet is jabbed upward into the throat or other part of the opponent.

(2) *Slash*.—The bayonet is slashed down on the head or neck of the opponent.

(3) *Butt strokes*.—The butt of the rifle is dashed into or swung against the opponent's face.

LANDING-FORCE MANUAL

UNITED STATES NAVY

1938



CHAPTER 3

DRILL, THE SQUAD, PLATOON AND COMPANY

(Reprinted 1941 with all changes up to and including No. 5)



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FOREWORD

The Landing-Force Manual, U. S. Navy, 1938, is published in nineteen chapters as follows:

- CHAPTER 1. INTRODUCTION.
- CHAPTER 2. INDIVIDUAL INSTRUCTION WITHOUT ARMS AND WITH ARMS (RIFLE, AUTOMATIC RIFLE, SUBMACHINE GUN, PISTOL, AND BAYONET).
- CHAPTER 3. DRILL, THE SQUAD, PLATOON, AND COMPANY.
- CHAPTER 4. FORMATIONS OF THE BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 5. CART DRILL.
- CHAPTER 6. DRILL, MACHINE GUN, CALIBER .30.
- CHAPTER 7. DRILL, THE SPECIAL-WEAPONS PLATOON (37-MM GUN AND 81-MM MORTAR).
- CHAPTER 8. DRILL, ARTILLERY.
- CHAPTER 9. THE INFANTRY PACK, AND DISPLAY OF EQUIPMENT AND CLOTHING.
- CHAPTER 10. CEREMONIES; AND MANUAL OF THE COLOR, SWORD, AND GUIDON.
- CHAPTER 11. INTERIOR GUARD DUTY AND GUARD MOUNTING.
- CHAPTER 12. MARCHES, SECURITY ON THE MARCH, AND OUTPOSTS.
- CHAPTER 13. TENT DRILL AND SHELTER.
- CHAPTER 14. FIELD SANITATION, PERSONAL HYGIENE, AND FIRST AID.
- CHAPTER 15. EXTENDED-ORDER EXERCISES, COMBAT PRINCIPLES OF THE RIFLE SQUAD AND PLATOON, AND COMBAT SIGNALS.
- CHAPTER 16. TACTICS AND TECHNIQUE OF THE RIFLE COMPANY, AND INFANTRY BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 17. THE DEFENSE AND ATTACK OF CITIES, RIOT DUTY, AND NATIONAL DISASTERS.
- CHAPTER 18. PHYSICAL DRILL.
- CHAPTER 19. SMALL ARMS MARKSMANSHIP.

LANDING-FORCE MANUAL

UNITED STATES NAVY

CHAPTER 3

DRILL, THE SQUAD, PLATOON, AND COMPANY

NOTES

(1) Sections I to IV of this chapter are based on BFM, FM 22-5.

(2) For instructions and additional rules applicable to close-order drill, see chapter 1.

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SECTION I

THE SQUAD

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3-1. *GENERAL.*—*a.* The squad is a group of men organized primarily as a combat team. It consists of one squad leader and other personnel as authorized by appropriate Tables of Organization. When the squad leader is absent, he is replaced by the second in command. If the second in command is also absent, the next senior member of the squad acts as leader.

b. As far as practicable, the squad is kept intact. The normal formation of the squad is a single rank or single file. This permits variation in the number of men composing the squad.

c. The squad in line marches to the left or to the front only for minor changes of position.

d. The squad leader, when in ranks, is posted as the right man of the squad if in line or as the leading man if in column.

3-2. *TO FORM THE SQUAD.*—*a.* The command is: **FALL IN.** At the command **Fall in**, the squad forms in line. On falling in, each man except the one on the left extends his left arm laterally at shoulder height, palm of the hand down, fingers extended and joined. Each man, except the one on the right, turns his head and eyes to the right and places himself in line so that his right shoulder touches lightly the tips of the fingers of the man on his right. As soon as proper intervals have been obtained, each man drops his arm smartly to his side and turns his head to the front.

TO FORM AT CLOSE INTERVALS

b. TO FORM AT CLOSE INTERVALS.—The commands are: 1. **At close interval**, 2. **FALL IN**. At the command **Fall in**, the men fall in as in *a*, above, except that close intervals are obtained by placing the left hand on the hip, fingers extended downward and joined, thumb along the forefinger, heel of the hand resting against the hip bone near the belt, elbow in the plane of the body.

c. The squad falls in on the squad leader.

d. If the squad is formed under arms, pieces are inspected as prescribed in chapter 2.

3-3. *PREVIOUS INSTRUCTIONS APPLICABLE.*—The squad executes the positions, movements, and manual of arms as prescribed in chapter 2, all men executing the movements simultaneously.

3-4. *TO DISMISS THE SQUAD.*—The commands are: 1. **Inspection**, 2. **ARMS**, 3. **Port**, 4. **ARMS**, 5. **DISMISSED**.

3-5. *TO COUNT OFF.*—*a.* The command is: **COUNT OFF**. At the command **Count off**, each man of the squad, except the one on the right flank, turns his head and eyes to the right. The right flank man calls out, "One." Each man in succession calls out, "Two," "Three," etc., turning his head and eyes to the front as he gives his number.

b. This command may be given whenever it is desired that the men know their relative position in the squad.

3-6. *TO ALIGN THE SQUAD.*—*a.* If in line, the commands are: 1. **Dress right (left)**, 2. **DRESS**, 3. **Ready**, 4. **FRONT**. At the command **Dress**, each man, except the one on the left, extends his left arm (or if at close interval, places his left hand upon his hip), and all align themselves to the right. The instructor places himself on the right flank one pace from and in prolongation of the line and facing down the line. From this position he verifies the alignment of the men, ordering individual men to move forward or back as is necessary. Having checked the alignment, he faces to the right in marching and moves three paces forward, halts, faces to the left, and commands: 1. **Ready**, 2. **FRONT**. At the command **Front**, arms are dropped quietly and smartly to the side and heads turned to the front.

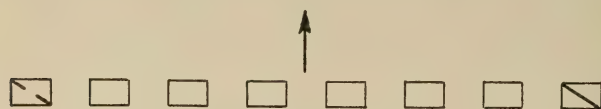
b. If in column, the command is: **COVER**. At the command **Cover**, men cover from front to rear with 40 inches distance between men.

3-7. *BEING IN LINE AT NORMAL INTERVAL, TO OBTAIN CLOSE INTERVAL.*—The commands are: 1. **Close**, 2. **MARCH**. At the command **March**, all men except the right flank man face to

THE SQUAD

the right in marching and form at close interval, as prescribed in paragraph 3-2b.

3-8. *BEING IN LINE AT CLOSE INTERVAL, TO EXTEND TO NORMAL INTERVAL.*—The commands are: 1. **Extend**, 2. **MARCH**. At the command **March**, all men, except the right-flank



SQUAD IN LINE

Interval between men; "normal" arms length
"close" 4 inches



SQUAD IN COLUMN



Distance between men 40 inches



In the rifle squad the second and third men in column are scouts; the fourth and fifth are the automatic rifleman and the substitute automatic rifleman, respectively.



Squad leader



Second in command

FIGURE 1.—The squad.

man face to the left in marching and form at normal interval as prescribed in paragraph 3-2a.

3-9. *BEING IN LINE, TO MARCH TO THE FLANK.*—The commands are: 1. **Right (left)**, 2. **FACE**, 3. **Forward**, 4. **MARCH**.

TO MARCH TO THE OBLIQUE

The movements are executed as explained in paragraphs 2-6*a* and 2-9, all men stepping off simultaneously.

3-10. *TO MARCH TO THE OBLIQUE*.—*a*. For the instruction of recruits, the squad being in column or correctly aligned, the instructor causes each man to face half right (left), points out his position, and explains that it is to be maintained in the oblique march.

b. The squad being in any formation, the commands are: 1. **Right (left) oblique**, 2. **MARCH**. At the command **March**, given as the right foot strikes the ground, each individual advances and plants the left foot, faces half right in marching and steps off in a direction of 45° to the right of his original front. He preserves his relative position, keeping his shoulders parallel to those of the guide (man on right front of line or column), and so regulates his step that the ranks remain parallel to their original front.

c. The command **Halt** is given on the left foot when halting from the right oblique and on the right foot when halting from left oblique. At the command **Halt**, given as the left foot strikes the ground, each individual advances and plants the right foot, turns to the front on the ball of the right foot, and places the left foot by the side of the right foot.

d. To resume the original direction, the commands are: 1. **Forward**, 2. **MARCH**. At the command **March**, each individual faces half left in marching and then moves straight to the front.

e. If at **Half step** or **Mark time** while obliquing, the full step is resumed by the command: 1. **Oblique**, 2. **MARCH**.

f. To give volume to the command the word "oblique" is pronounced to rhyme with "strike."

3-11. *TO MARCH TOWARD A FLANK WHILE IN MARCH*.—*a*. The commands are: 1. **By the right (left) flank**, 2. **MARCH**. At the command **March**, each individual executes the movement as prescribed in paragraph 2-17.

b. This movement is used when a quick movement to the right or left for a short distance is required. Normally the unit is halted, faced in the desired direction, and started forward again by the commands: 1. **Forward**, 2. **MARCH**.

3-12. *BEING IN COLUMN, TO CHANGE DIRECTION*.—The commands are: 1. **Column right (left) (half right) (half left)**, 2. **MARCH**. At the command **March**, the leading man executes the movement as prescribed in paragraphs 2-16*a* and *b*. The other men

THE SQUAD

in the column execute the same movement successively and on the same ground as the leading man.

3-13. *BEING IN LINE, TO TAKE INTERVAL AND ASSEMBLE*.—*a*. To take interval, the commands are: 1. ***Take interval to the left (right)***, 2. ***MARCH***. At the command ***March***, the right-flank man stands fast and extends his left arm at shoulder height, palm of the hand down, fingers extended and joined until the man on his left obtains the proper interval, then he drops his arm. Other men face to the left in marching and step out until they have an interval of two arms' length from the man on their right, then halt and face to the front. Each man, except the one on the left who raises his right arm only, extends both arms laterally at shoulder height. Each man, except the right-flank man, then turns his head and eyes to the right and places himself in line so that the fingertips of his right hand touch lightly the fingertips of the left hand of the man on his right. As soon as each man aligns himself at two arms' length intervals from the man on his right, he drops his right arm to the side and turns his head and eyes to the front. He drops his left arm to the side when the man on his left has obtained his proper interval. If under arms, rifles will be slung prior to the execution of this movement.

b. To assemble, the commands are: 1. ***Assemble to the right (left)***, 2. ***MARCH***. At the command ***March***, the right-flank man stands fast. All other men face to the right in marching and form at normal intervals as in paragraph 3-2*a*.

3-14. *STACK ARMS*.—*a*. The rifle squad being in line at normal or close interval, the commands are: 1. ***Stack***, 2. ***ARMS***. Numbers 2, 5, 8, and 11 make the stacks except when no men are on the left of these numbers. The stack is made as follows: At the command ***Arms***, the man on the left of the stackman regrasps his rifle with his right hand at the balance, carrying it to the horizontal position, barrel up, and passes his rifle to the stackman who grasps it with his left hand between the upper sling swivel and stacking swivel and places the butt between his feet, barrel to the front, muzzle inclined slightly to the front, the thumb and forefinger raising the stacking swivel. The stackman then throws the butt of his own rifle 2 feet in advance of that of his left file and 6 inches to the right of his right toe; at the same time he allows his right hand to slip to the stacking swivel and engages his rifle with that of his left file. The man on the right of the stackman raises his rifle with his right hand, regrasps it with his right hand at the balance, steps to the left front keeping his right foot

TO TAKE ARMS

in place, and carries his rifle well forward, barrel to the front; the left hand guiding the stacking swivel engages the lower hook of the swivel of his own rifle with the free hook of that of his left file, and then turns the barrel outward into the angle formed by the other two rifles and lowers the butt to the ground so that it will form a uniform stack with the other two rifles. He then assumes the position of attention. Other rifles of the squad are passed toward the nearest stack and laid on the stack by the stackman.

b. The automatic rifle squad, rifle company, being in line at normal or close interval, the commands are: 1. **Stack**, 2. **ARMS**. The second man from the left makes the stack. The stack is made as follows: At the command **Arms**, the man on the left of the stackman regrasps his rifle with the right hand at the balance, carrying it to the horizontal position, barrel up, and passes his rifle to the stackman who grasps it with his left hand between the upper sling swivel and stacking swivel and places the butt between his feet, barrel to the front, muzzle inclined slightly to the front, the thumb and forefinger raising the stacking swivel. The stackman then throws the butt of his own rifle 2 feet in advance of that of his left file and 6 inches to the right of his right toe; at the same time he allows his right hand to slip to the stacking swivel and engages his rifle with that of his left file. The nearest rifle on the right is then passed to the man on the right of the stackman who raises the rifle with his right hand at the balance, steps to the left front keeping his right foot in place, and carries the rifle well forward, barrel to the front; the left hand guiding the stacking swivel engages the lower hook of the swivel of the rifle with the free hook of that of the stackman, and then turns the barrel outward into the angle formed by the other two rifles and lowers the butt to the ground so that it will form a uniform stack with the other two rifles. He then assumes the position of attention. Automatic rifles and the other rifles of the squad are passed toward the stack and laid on the stack by the stackman.

c. The rifle squad of the antitank company and other types of squads in general stack arms with the methods prescribed in *a* and *b* above.

3-15. **TO TAKE ARMS**.—The squad being in line behind the stacks, the commands are: 1. **Take**, 2. **ARMS**. At the command **Arms**, the procedure of stacking arms is reversed. The loose rifles are first passed back. In breaking the stack, the stackman grasps his rifle, and that of the man on his left, so that the rifles will not fall when the man on the right raises and disengages his rifle. Each man, as he receives his rifle, resumes the position of order arms.

THE SQUAD

3-16. *COLUMN OF TWOS*.—When marching small groups, not at drill, the group may be marched in column of twos by forming it in two ranks and giving the command: 1. **Right (left)**, 2. **FACE**.

3-17. *TO FORM COLUMN OF TWOS FROM SINGLE FILE AND REFORM*.—*a*. The squad being in column, at a halt, to form column of twos, the commands are: 1. **Form column of twos**, 2. **MARCH**. At the command **March**, the leading man stands fast; the second man in the squad moves by the oblique until he is to the left of and abreast of the squad leader with normal interval, and halts; the third man moves forward until behind the squad leader with normal distance and halts; the fourth man moves by the oblique until he is to the left of and abreast of the third man with normal interval, and halts; and so on.

b. The squad being in column of twos, in marching, to re-form single file, the squad is first halted. The commands are: 1. **Form single file from the right**, 2. **MARCH**. At the command **March**, the leading man of the right column moves forward, the leading man of the left column steps off to the right oblique, then executes left oblique so as to follow the right file at normal distance. Remaining twos follow successively in like manner.

SECTION II

THE PLATOON

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3-18. *FORMATIONS OF MORE THAN ONE SQUAD.*—*a.* The squads form in line, one behind the other, with 40 inches distance between ranks.

b. Squads are usually arranged to produce a three- or four-rank formation so that by facing to the right the unit will march in column of threes or column of fours depending on the number of squads.

c. A two-squad unit forms in two ranks and marches in column of twos.

d. A three-squad unit forms in three ranks and marches in column of threes.

e. A four-squad unit forms in four ranks and marches in column of fours.

f. A platoon composed of two sections of two squads each forms in four ranks and marches in column of fours.

g. Movements are described herein for column of threes or fours and may be executed by either formation.

h. When in line, the platoon is aligned as prescribed for the squad in paragraph 3-6. The alignment of each rank is verified by the platoon leader.

THE PLATOON

i. The platoon being in line takes interval and assembles as prescribed for the squad in paragraph 3-13. This movement may be ordered after ranks are opened for the display of field equipment or for other special purpose. It is not utilized in forming for physical training.

3-19. *COMPOSITION AND FORMATION OF THE PLATOON*.—The platoon consists of platoon headquarters and several squads. Platoon headquarters consists of a platoon leader and one or more assistants. For purposes of drill and ceremonies, a three-squad or four-squad formation should be arranged and the size of the squads equalized. Figure 2 shows how the platoon formation applies to a rifle platoon.

3-20. *POSITION OF INDIVIDUALS*.—a. The platoon leader takes position six paces in front of the center of his platoon when in line. In march formation (column of threes or fours), he marches at the head of his platoon as shown in figure 2.

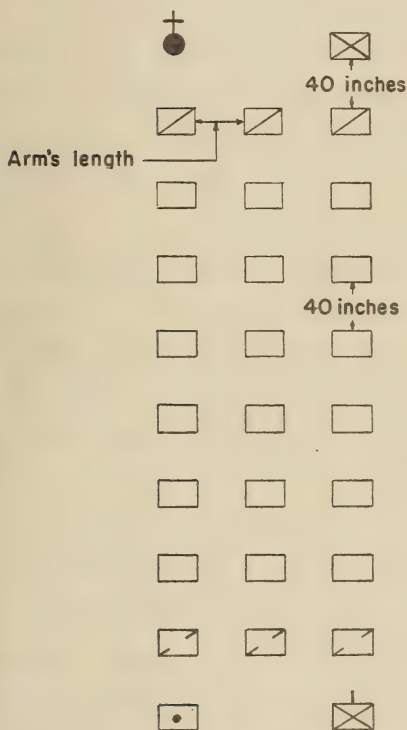
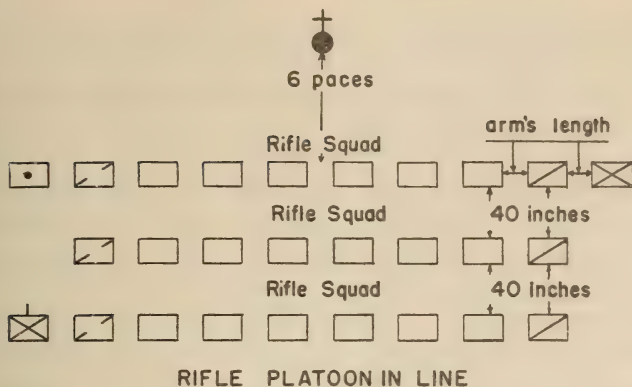
b. The second in command of a platoon takes position on the left of the left man of the rear rank when squads are in line unless otherwise indicated. When squads are in column, he follows the rear man in the right squad of the unit. The second in command observes the conduct of the unit, sees that the proper formation is maintained, and that commands are promptly and properly executed. The platoon guide is posted on the right of the right flank man of the front rank when in line. In column, he takes post in front of the right flank man. He is responsible for maintaining the proper direction and cadence of march of the platoon.

c. Other enlisted men (such as clerks, cooks, armorers, etc.), when attached to the platoon, fall in on the left when in line (or in rear when squads are in column) and march as part of regularly organized squads.

3-21. *TO FORM THE PLATOON*.—a. The command is: **FALL IN**. At the command **Fall in**, the first squad forms in line, as prescribed in paragraph 3-2a, its center opposite and three paces from the platoon petty officer. The other squads form in rear of the first squad and in the same manner, with 40 inches distance between ranks. Members of the rear squads extend their arms to obtain their approximate intervals but cover the corresponding members in the first squad. The guide places himself as shown in figure 2.

b. To form with close interval, the commands are: 1. **At close interval**, 2. **FALL IN**. At the command **Fall in**, the movement is

TO FORM THE PLATOON



RIFLE PLATOON IN COLUMN

- | | | | |
|--|-------------------|--|----------------------------|
| | Platoon leader | | Squad leader |
| | Second in command | | Second in command of squad |
| | Platoon guide | | Messengers, etc. |

FIGURE 2.—Platoon formations.

THE PLATOON

executed as prescribed in *a* above except that squads form at close interval (par. 3-2*b*).

c. The platoon is ordinarily formed and dismissed by the platoon petty officer (see also par. 3-36).

3-22. *TO DISMISS THE PLATOON.*—The commands are: 1. **Inspection**, 2. **ARMS**, 3. **Port**, 4. **ARMS**, 5. **DISMISSED**.

3-23. *TO MARCH THE PLATOON.*—*a.* The normal formation for marching is in column of threes (or fours) with squad columns abreast, squad leaders at the head of their squads.

b. The platoon in line marches to the left or to the front only for minor changes of position.

c. The platoon being in line to march to the right, the commands are: 1. **Right**, 2. **FACE**, 3. **Forward**, 4. **MARCH**. This marches the platoon in column of threes (or fours) to the right.

3-24. *GUIDE IN MARCHING.*—Except when otherwise directed, men in ranks keep the proper distance and interval and align themselves on the men toward the flank on which the guide is marching. When it is desired to guide toward the left, the command is: **GUIDE LEFT**. The guide and the platoon leader then change their relative positions.

3-25. *BEING IN COLUMN OF THREES (OR FOURS) AT NORMAL INTERVAL BETWEEN SQUADS, TO MARCH (OR FORM) AT CLOSE INTERVAL.*—*a.* The commands are: 1. **Close**, 2. **MARCH**. At the command **March**, the squads close to the center by obliquing until the interval between men is 4 inches. The center squad (or squads) take up the half step until the dress has been regained. The distance, 40 inches, remains unchanged.

b. If this movement is executed from the halt, the squads close toward the center by executing right or left step until 4-inch intervals are reached. If in column of threes, the right and left squads left and right step two steps. If in column of fours, the right center and left center squads left and right step one step, the right and left squads left and right step three steps.

3-26. *BEING IN COLUMN OF THREES (OR FOURS) AT CLOSE INTERVAL BETWEEN SQUADS, TO MARCH (OR FORM) AT NORMAL INTERVAL.*—*a.* The commands are: 1. **Extend**, 2. **MARCH**. At the command **March**, the squads open to the right and left from the center by obliquing until the interval between men is one arm's length. The center squad (or squads) will take up the half step until the dress has been regained.

BEING IN COLUMN OF THREES OR FOURS

b. If this movement is executed at the halt, the squads execute right or left step until they have secured the proper interval by reversing the procedure outlined in paragraph 3-25b.

3-27. *BEING IN COLUMN OF THREES (OR FOURS), TO CHANGE DIRECTION.*—The commands are: 1. **Column right (left)**, 2. **MARCH**. The right flank man of the leading rank (the guide and platoon leader excepted) is the pivot of this movement. At the command **March**, given as the right foot strikes the ground, the right flank man of the leading rank faces to the right in marching as prescribed in paragraph 2-16a and b, and takes up the half step until the other men of his rank are abreast of him, then he resumes the full step. The other men of the leading rank oblique to the right in marching without changing interval, place themselves abreast of the pivot man and conform to his step. The ranks in rear of the leading rank execute the movement on the same ground, and in the same manner, as the leading rank.

3-28. *BEING IN COLUMN OF THREES (OR FOURS), TO FORM LINE TO THE FRONT.*—The commands are: 1. **Column right**, 2. **MARCH**, 3. **Platoon**, 4. **HALT**, 5. **Left**, 6. **FACE**. **Column right** is executed as prescribed in paragraph 3-27. The command **Halt** is given after the change of direction is completed.

3-29. *BEING IN ANY FORMATION IN MARCH, TO MARCH TOWARD A FLANK.*—The commands are: 1. **By the right (left) flank**, 2. **MARCH**. This movement is executed as prescribed for the squad in paragraph 3-11. If the platoon is in column at close (4-inch) intervals, the squads in rear of the squad which becomes the leading squad take up the half-step until they each reach 40 inches distance from the squad ahead. This movement is used only for short distances.

3-30. *STACK ARMS.*—Before stacking arms ranks are opened. Arms are then stacked by each squad as prescribed in paragraph 3-14.

3-31. *BEING IN LINE, TO OPEN AND CLOSE RANKS.*—a. To open ranks the commands are: 1. **Open ranks**, 2. **MARCH**, 3. **Ready**, 4. **FRONT**. At the command **March**, the front rank takes three steps forward, halts, and executes **Dress right**. The second rank takes two steps forward, halts, and executes **Dress right**. The third rank takes one step forward, halts, and executes **Dress right**. The fourth rank, if any, executes **Dress right**. The platoon leader places himself on the flank of the platoon toward which the dress is to be made, one pace from and in prolongation of the front rank and facing down the line. From this position he aligns the front rank. The second and third ranks are aligned in the same manner. In moving from one rank to another, the platoon leader faces to the left in

THE PLATOON

marching. After verifying the alignment of the rear rank, he faces to the right in marching, moves three paces beyond the front rank, halts, faces to the left, and commands: 1. **Ready**, 2. **FRONT**.

b. To close ranks, the commands are: 1. **Close ranks**, 2. **MARCH**. At the command **March**, the front rank stands fast; the second rank takes one step forward and halts; the third rank takes two steps forward and halts; and the fourth rank, if any, takes three steps forward and halts. Each man covers his file leader.

3-32. **TO FORM FOR SHELTER TENTS**.—The platoon being in line the commands are: 1. **Form for shelter tents to the left (right)**, 2. **MARCH**, 3. **Dress right (left)**, 4. **DRESS**, 5. **Ready**, 6. **FRONT**, 7. **COUNT OFF**.

a. At the command **Form for shelter tents to the left (right)**, the second in command moves to a position on the right of the guide who is on the right of the right man of the front rank. The messenger takes position on the left of the left man of the rear rank.

b. At the command **March**, all squads, except the front squad, face to the left in marching and step off. Squad leaders by giving appropriate commands: 1. **By the right (left) flank**, 2. **MARCH**, and 1. **Squad**, 2. **HALT**, move their squads into line abreast of the squad(s) already on line.

c. At the commands 3. **Dress right (left)**, 4. **DRESS**, 5. **Ready**, 6. **FRONT**, and 7. **COUNT OFF**, given by the platoon leader the entire rank executes these movements as prescribed in paragraphs 3-5 and 3-6.

d. On direction of the platoon leader, the odd numbers draw their bayonets and thrust them into the ground alongside the outside of the left heel near the instep. The bayonet indicates the position of the front tent pole. Men not equipped with bayonets mark the place with the left heel. Odd and even numbers (Nos. 1 and 2; Nos. 3 and 4; etc.) pitch tents together.

e. To assemble, the platoon is faced to the right and re-formed from single file into column of threes (or fours) to the right (left) as prescribed in paragraph 3-33c (2). The platoon petty officer and messenger resume their normal posts.

3-33. **TO FORM COLUMN OF TWOS AND SINGLE FILE AND RE-FORM**.—The platoon may be marched in column of twos or single file by the procedure given below. This is not a precise movement. It is practiced in drill so that when necessary the movement may be executed smoothly and without delay. The change of column is always made from a halt.

TO FORM COLUMNS OF TWOS AND SINGLE FILE AND RE-FORM

a. (1) The platoon being in column of threes, at a halt, to form column of twos, the commands are: 1. **Column of twos from the right (left)**, 2. **MARCH**. At the command **March**, the right two squads march forward; the left squad forms column of twos as prescribed for the squad and then executes **Column half right** and **Column half left** so as to follow in column the leading squads. Forty-inch distances are maintained.

(2) The platoon being in column of twos, at a halt, to re-form in column of threes, the commands are: 1. **Column of threes to the left (right)**, 2. **MARCH**. At the command **March**, the leading two squads stand fast. The rear squad forms single file from the right as prescribed in paragraph 3-17b and moves to its normal place beside the leading squads by executing **Column half left** then **Column half right**. It is halted when its leading file is on line with the leading rank of the platoon.

b. (1) The platoon being in column of fours, at a halt, to form column of twos, the commands are: 1. **Column of twos from the right (left)**, 2. **MARCH**. At the command **March**, the right two squads march forward; the left two squads initially stand fast, then follow the leading two squads by executing **Column half right** and **Column half left**. Forty-inch distances are maintained.

(2) The platoon being in column of twos, at a halt, to re-form in column of fours, the commands are: 1. **Column of fours to the left (right)**, 2. **MARCH**. At the command **March**, the leading two squads stand fast. The two rear squads move to their normal places by executing **Column half left** then **Column half right** and are halted when the leading files are on line with the leading rank of the platoon.

c. (1) The platoon being in column of threes (or fours), at a halt, to form single file, the commands are: 1. **Column of files from the right (left)**, 2. **MARCH**. At the command **March**, the right squad of the platoon moves forward. The other squads stand fast initially and then successively follow the leading squad by executing **Column half right** and **Column half left**. Distances of 40 inches are maintained.

(2) The platoon being in single file, at a halt, to re-form in column of threes (or fours), the commands are: 1. **Column of threes (or fours) to the left (right)**, 2. **MARCH**. At the command **March**, the leading squad stands fast. The other squads move to their normal places by executing **Column half left**, then, at the

THE PLATOON

proper time, *Column half right* and are halted when the leading file is on line with the leading rank of the platoon.

d. Whenever commands are given involving movements of squads in which one squad stands fast, takes up the march, continues the march, or changes formation, the squad leader gives the appropriate commands.

SECTION III

THE COMPANY

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3-34. *GENERAL.*—*a.* The company consists of a company headquarters and two or more platoons.

b. For close-order drill and ceremonies, company headquarters personnel present are attached to platoons to equalize the strength thereof. Members of the company headquarters are formed for marches or special purposes as shown in figure 4 or as directed by the company commander or higher authority.

c. The chief petty officer takes post as follows for drills and ceremonies:

(1) *With the company in line.*—At normal distance in rear of the squad leader of the rear squad of the left center (or center) platoon.

(2) *With the company in column of platoons (rifle platoons being in column of fours and the weapons platoon in column of threes).*—At normal distance in rear of the left squad of the rear platoon for drills and ceremonies. For march formations, his position is as shown in figure 4.

(3) *With the company in mass formation.*—At normal distance in rear of the second in command of the center (or left center) platoon.

d. The chief petty officer takes post in march formation at normal distance behind the company commander.

e. The guidon bearer takes post as follows for drills and ceremonies:

(1) *With the company in line or in mass formation.*—One pace to the rear and three paces to the left of the company commander.

(2) *With the company in column of threes or fours.*—As shown in figure 4.

THE COMPANY

f. For marches in the field, the guidon is disposed with the company headquarters baggage or as otherwise directed. If carried by the guidon bearer he takes the position shown in figure 4.

3-35. *RULES FOR COMPANY DRILL.*—a. The platoon, rather than the company, is the basic close-order drill unit. Only such formations are prescribed for the company as are necessary for marches, drills, and ceremonies.

b. Platoon leaders repeat such preparatory commands as are to be immediately executed by their platoons, such as **Forward**, and the men execute the movement if it applies to their platoons at the command of execution, such as **MARCH** and **HALT**, given by the company commander. In movements executed in **route step** and **at ease**, the platoon leaders repeat the command of execution if necessary. Platoon leaders do not repeat the company commander's commands in having the company **fall out, stack arms, take arms**, or in executing the manual of arms, nor those commands which are not essential to the execution of a movement by their platoons. In giving commands or cautions, platoon leaders may prefix the numbers of the platoons, as: **First platoon, halt**; or **Second platoon, forward**.

c. Whenever commands are given involving movements of the company in which one platoon stands fast or continues the march, its platoon leader commands: **Stand fast**, or cautions, **Continue the march**, as the case may be.

d. The company does not march forward when in line except for minor changes in position.

3-36. *TO FORM THE COMPANY.*—a. The chief petty officer takes post nine paces in front of the point where the center of the company is to be, faces that point and commands: **FALL IN**. At the command **Fall in**, the company forms in three (or four) ranks with normal interval between men (unless close interval is directed) and three-pace intervals between platoons as indicated in figure 3.

b. Each platoon petty officer takes post three paces in front of the point where the center of his platoon will be. The platoons form in their proper places under supervision of the platoon petty officers.

c. The platoon petty officers then command: **REPORT**. Remaining in position (at **order arms** if armed with the rifle), the squad leaders, in succession from front to rear in each platoon, salute and report, "All present," or "Seaman (——) absent." Platoon petty officers then command: 1. **Inspection**, 2. **ARMS**, 3. **LOCK PIECES** (if armed with the M-1 rifles), 4. **Order**, 5. **ARMS**, and face about. Men armed with the automatic rifle and the pistol execute inspection

TO FORM THE COMPANY

arms at the command: 1. **Inspection**, 2. **ARMS**. At the command **Report** given by the chief petty officer, the platoon petty officers successively, beginning with the right platoon, salute and report, "All present or accounted for," or "— men absent."

d. All platoons having reported, the chief petty officer commands: **POSTS**. The platoon petty officers face about and move by the most direct routes to the positions shown in figure 3. The chief petty officer then faces the company commander, salutes, and reports, "Sir, all present or accounted for," or "Sir, — men absent," and without command faces about and moves by the most direct route to the position shown in figure 3.

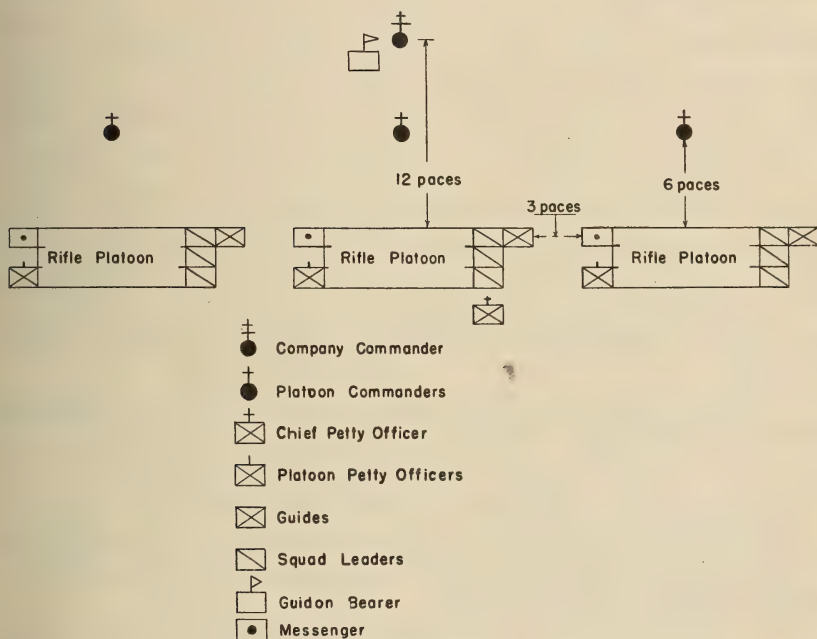


FIGURE 3.—Rifle company in line.

e. If the platoons cannot be formed in regularly organized squads, the platoon petty officers command: 1. **Inspection**, 2. **ARMS**, 3. **Right shoulder**, 4. **ARMS**, and call the rolls. Each man, as his name is called, answers "Here," and comes to **order arms**. The platoon petty officers then divide the platoons into squads and report as described above.

f. The company commander places himself 12 paces in front of the center of and facing the company in time to receive the report of the chief petty officer. Officers commanding platoons take their posts

THE COMPANY

immediately after the chief petty officer has reported and draw sword with the company commander.

g. In forming the company, all who are required to salute and make a report maintain the position of salute until it is returned.

3-37. *BEING IN LINE, TO MARCH TO THE RIGHT.*—*a.* The company is faced to the right and marched as prescribed for the platoon in paragraph 3-23. The company commander, chief petty officer, and guidon take positions shown in figure 4. For drills and ceremonies, the chief petty officer takes position as prescribed in paragraph 3-34*c* (2).

b. The company marches to the left from line only for minor changes of position.

3-38. *TO FORM WITH CLOSE INTERVAL BETWEEN MEN.*—The commands are: 1. **At close interval**, 2. **FALL IN**. At the command **Fall in**, the company forms as prescribed in paragraph 3-36 with each platoon forming as prescribed in paragraph 3-21*b*. This formation is used only for roll calls or where space is limited.

3-39. *TO DISMISS THE COMPANY.*—*a.* The company being in line at a halt, the company commander directs the chief petty officer "Dismiss the company." The officers fall out; the chief petty officer moves to a point nine paces in front of the center of the company, salutes the company commander, faces toward the company, and commands: 1. **Inspection**, 2. **ARMS**, 3. **Port**, 4. **ARMS**, 5. **DISMISSED**.

b. Dismissal may also take place by the command: **DISMISS YOUR PLATOONS**. The platoons being in line at a halt are then dismissed on direction of the individual platoon leaders to the platoon petty officers. Each platoon petty officer takes post three paces in front of the center of his platoon, salutes the platoon leader, faces toward the platoon, and commands: 1. **Inspection**, 2. **ARMS**, 3. **Port**, 4. **ARMS**, 5. **DISMISSED**.

3-40. *TO ALIGN THE COMPANY.*—The company being in line at a halt, to align the company the command is: **DRESS RIGHT (CENTER or LEFT)**. At the command **Dress right**, the platoon leader of the base platoon dresses his platoon immediately. When **Dress center** is given, the leader of the center platoon dresses his platoon to the right. Each platoon leader dresses his platoon toward the center (right or left) of the company as soon as the base platoon or the platoon next toward the base platoon has completed its dress. When in mass formation the commands are given by the

TO ALIGN THE COMPANY

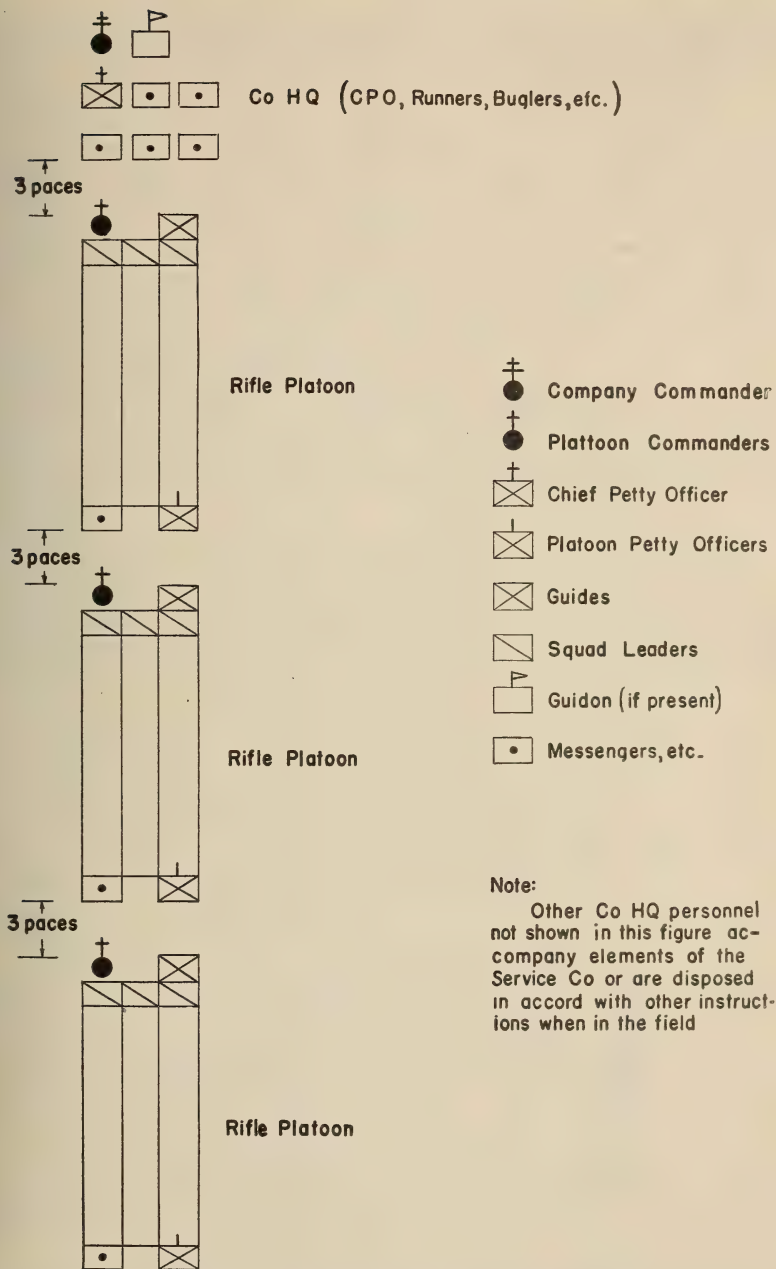


FIGURE 4.—Rifle company in march formation.

THE COMPANY

company commander, and the alignment of each rank is verified expeditiously by the platoon leader of the base platoon.

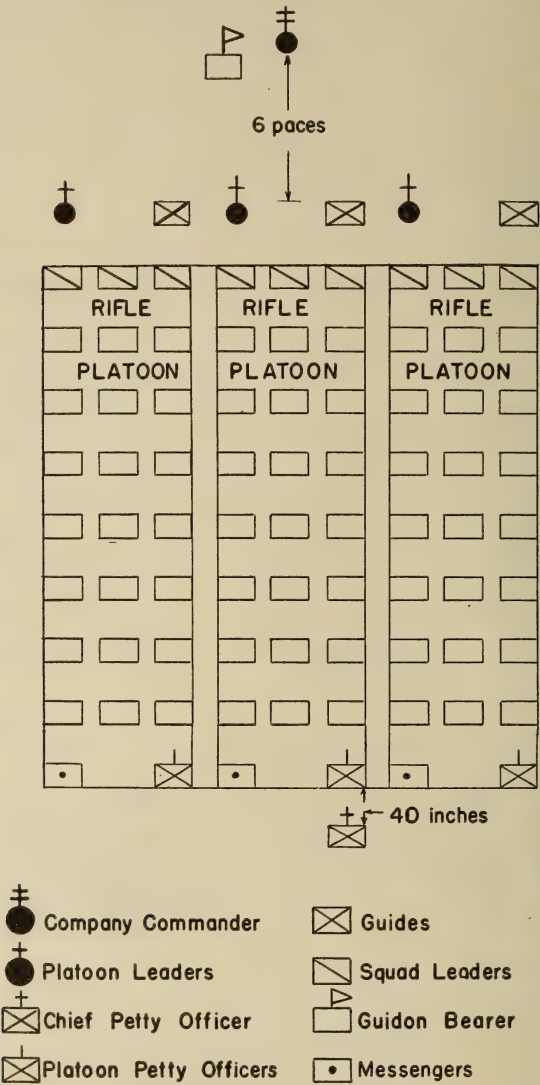


FIGURE 5.—Rifle company in mass formation (interval between men 4 inches; distance between men 40 inches).

3-41. *PREVIOUS INSTRUCTION APPLICABLE.*—The company marches, executes changes of direction, closes and extends in-

BEING IN COLUMN OF THREES OR FOURS

intervals between squads in column of threes or fours, opens and closes ranks, stacks and takes arms as in platoon drill.

3-42. *BEING IN COLUMN OF THREES OR FOURS AT CLOSE INTERVAL, TO FORM COMPANY MASS.*—*a.* The company being at a halt, the commands are: 1. **Company mass left (right)**, 2. **MARCH**. At the command **March**, the leading platoon stands fast. The rear platoons move to position alongside the leading platoon(s) at 4-inch intervals by executing **Column half left** then **Column half right**. Each platoon is halted when its leading rank is on line with the leading rank of the platoon(s) already on line. This forms the company in mass, with 4-inch intervals between all men in ranks.

b. The company being in march, the commands are the same as given in *a* above. The movement is executed as described in *a* above, except that immediately after the command **March**, the leading platoon is halted by the commands: 1. **Platoon**, 2. **HALT**, given by its own leader.

3-43. *BEING IN COLUMN OF THREES OR FOURS, TO FORM EXTENDED MASS FORMATION.*—The commands are: 1. **Company mass () paces left (right)**, 2. **MARCH**. At the command **March**, the movement is executed as described in para-

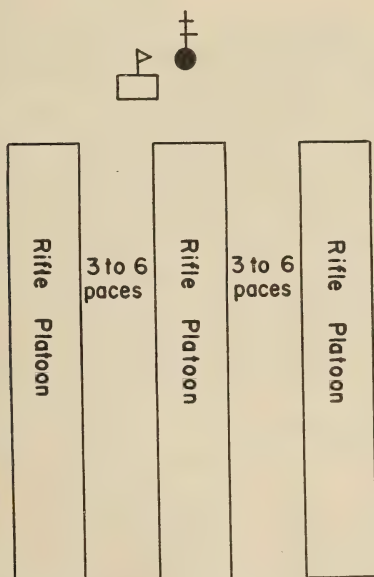


FIGURE 6.—Rifle company in extended mass formation.

THE COMPANY

graph 3-42 except that the rear platoons move to position alongside the leading platoon(s) at the intervals ordered by executing **Column left** and **Column right**. Each platoon is halted when its leading rank is on line with the leading rank of the platoon(s) already on line. This formation is used for drills and ceremonies if it is desired to increase the size of the mass in order to present a more impressive appearance. The company in this formation drills in the same manner as for mass formation, maintaining the interval between platoons. The extended mass formation is also utilized in forming the company for inspection as prescribed in paragraph 3-47.

3-44. **BEING IN MASS FORMATION, TO CHANGE DIRECTION.**—*a.* The commands are: 1. **Right (left) turn**, 2. **MARCH**, 3. **Forward**, 4. **MARCH**. The right flank man of the line of guides and platoon leaders is the pivot of this movement. At the command **March**, he faces to the right in marching and takes up the half step. Other first rank men execute a **Right oblique**, advance until opposite their place in line, execute a second **Right oblique** and, upon arriving abreast of the pivot man, take up the half step. Each succeeding rank executes the movement on the same ground and in the same manner as the first rank. All take the full step at the second command **March**, which is given after the entire company has changed direction.

b. In turning to the left on a moving pivot, each rank dresses to the left until the second command **March** and after that the dress is to the right unless otherwise announced.

c. The company commander faces to the rear and marches backward until the change in direction has been completed.

3-45. **BEING IN COMPANY MASS, TO FORM COLUMN OF THREES (OR FOURS).**—Being at a halt, the commands are: 1. **Column of threes (or fours)**, 2. **Right platoon, forward**, 3. **MARCH**. At the command **March** the right platoon marches forward. The other platoons follow in column in their normal formation successively by executing **Column half right** and **Column half left** upon the commands of their respective leaders.

SECTION IV

COMPANY INSPECTION

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Inspection of quarters or camp.....	3-49	27

3-46. **COMPANY INSPECTION.**—*a. Formation.*—The company forms in line or in an inspection formation of column of platoons as described in paragraph 3-47. If transportation is to be included in the formation, it forms in line three paces in rear or as directed. Transportation may be inspected separately from the foot elements as directed.

b. Procedure.—(1) The company being in column of platoons (par. 3-47) the company commander commands: **PREPARE FOR INSPECTION**. At this command, platoon leaders cause ranks to be opened. They then place themselves, facing to the front, three paces in advance of the right flank of their platoons.

(2) Ranks having been opened, the company commander commands: **REST** and returns sword. He then inspects the company. During the inspection, officers, petty officers, and guidon bearers not in ranks come to attention at **Order arms** as the inspecting officer approaches, and after being inspected resume the position of **Rest**. The company commander may direct the chief petty officer to join him and take down notes as he inspects. The company commander, commencing at the head of the column, then makes a minute inspection of the arms, equipment, dress, and appearance of the personnel of the company. As he approaches each platoon, its leader brings the platoon to attention and salutes. As soon as inspected, the platoon leader returns sword, places himself on the right of the company commander, and accompanies him throughout the inspection of the platoon.

(3) The inspection is made from right to left in front and from left to right in rear of each rank.

(4) Each man executes **Inspection arms** as the company commander or inspecting officer reaches his position.

(5) The company commander takes the rifle, grasping it with the right hand just above the lower band, the man dropping his

COMPANY INSPECTION

hands. He inspects the rifle and, with the hand and rifle in the same position as in receiving it, hands it back to the man, who takes it with the left hand at the balance and executes **Order arms**.

(6) Should the piece be inspected without handling, each man executes **Order arms** as soon as the company commander has passed to the next man.

(7) A man armed with the automatic rifle executes **Inspection arms** as the company commander reaches his position. The inspection completed, he pulls the trigger, replaces the magazine, and resumes the position of **Attention**, the automatic rifle being slung.

(8) Enlisted men armed with the pistol execute **Inspection pistol**. When the company commander has passed, they execute **Return pistol**.

(9) Upon completion of the inspection of each platoon, its leader takes his post, faces down the line, and commands: 1. **Close ranks**, 2. **MARCH**, and adds **Rest** after ranks have been closed. He then takes his post in front of the center of the platoon.

(10) The company commander may direct the platoon leaders to make the detailed inspection of arms or other equipment of the men of their platoons.

3-47. **INSPECTION OF PERSONAL FIELD EQUIPMENT WHILE IN RANKS**.—The company forms in column of platoons (with each platoon in line) by forming extended mass formation to the right at 24 paces (par. 3-43 and fig. 6) and then executing left face. The company commander, after the inspection of arms has been completed in a platoon, directs the platoon leader to prepare for inspection of equipment. The platoon leader provides the additional distance necessary for the display of equipment between the opened ranks by the commands: 1. **Front rank, three paces forward**, 2. **MARCH**; 1. **Second rank, two paces forward**, 2. **MARCH**; 1. **Third rank, one pace forward**, 2. **MARCH**. He then causes the platoon to take interval. Intervals having been taken, the platoon leader commands: 1. **Unslung equipment**, 2. **DISPLAY EQUIPMENT**.

a. At the command **Unslung equipment**, each man lays his rifle on the ground, muzzle to the front, barrel to the left, butt near the toe of his right foot, unslings his equipment and places it on the ground at his feet, haversack up and to the front, end of the pack in front of and touching his toes.

INSPECTING OFFICER OTHER THAN COMPANY COMMANDER

b. At the command **Display equipment**, packs are opened and equipment displayed as prescribed in Chapter 9.

c. The company commander then passes along the ranks as before, inspects the equipment, and directs the platoon leader to have packs rolled and the platoon assembled. The platoon leader then commands: **ROLL PACKS**.

d. Each man assembles his equipment and, leaving the equipment in its position on the ground at his feet, resumes the position of **Attention**.

e. All equipment being assembled, the platoon leader commands: **SLING EQUIPMENT**.

f. Packs are slung and belts fastened and rifles taken.

g. The platoon leader then causes the platoon to assemble. The inspection is completed as already explained.

h. In units which have special combat equipment such as machine guns, mortars, signal or command post equipment, the company commander, after packs have been opened (or after the individual inspection has been completed), directs **Lay out machine gun (mortar or other) equipment for inspection**. Gun squads under the direction of their leaders break ranks and lay out their weapons and accessories for inspection as prescribed in the gun drill for the weapon. Headquarters personnel lay out the fire-control, communication, or other combat equipment in a similar manner.

3-48. **INSPECTING OFFICER OTHER THAN THE COMPANY COMMANDER**.—Should the inspecting officer be other than the company commander, the latter, after commanding **Rest**, will face to the front. When the inspecting officer approaches, the company commander will face about, bring the company to attention, face to the front and salute. As soon as the company commander has been inspected he faces about, commands **Rest**, returns sword and accompanies the inspecting officer. During the inspection of a platoon its leader marches on the right of the inspecting officer. The inspection proceeds as hereinbefore prescribed.

3-49. **INSPECTION OF QUARTERS OR CAMP**.—a. When the company is dismissed, arms are put away. In quarters, headdress and accoutrements are removed and the men stand near their respective bunks; in camp they stand covered in front of their tents but without accoutrements.

b. If the personal field equipment has not been inspected and its inspection in camp or in quarters is ordered, each man arranges the required articles as prescribed in Chapter 9.

COMPANY INSPECTION

c. The company commander, accompanied by the other company officers, then inspects the quarters or camp. The chief petty officer precedes the company commander and calls the men to attention on entering each squad room or on approaching each area; the men stand at attention but do not salute.

LANDING-FORCE MANUAL

UNITED STATES NAVY

1938



CHAPTER 4

FORMATIONS OF THE BATTALION, REGIMENT AND BRIGADE

(Reprinted 1941 with all changes up to and including No. 5)



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FOREWORD

The Landing-Force Manual, U. S. Navy, 1938, is published in nineteen chapters as follows:

- CHAPTER 1. INTRODUCTION.
- CHAPTER 2. INDIVIDUAL INSTRUCTION WITHOUT ARMS AND WITH ARMS (RIFLE, AUTOMATIC RIFLE, SUBMACHINE GUN, PISTOL, AND BAYONET).
- CHAPTER 3. DRILL, THE SQUAD, PLATOON, AND COMPANY.
- CHAPTER 4. FORMATIONS OF THE BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 5. CART DRILL.
- CHAPTER 6. DRILL, MACHINE GUN, CALIBER .30.
- CHAPTER 7. DRILL, THE SPECIAL-WEAPONS PLATOON (37-MM GUN AND 81-MM MORTAR).
- CHAPTER 8. DRILL, ARTILLERY.
- CHAPTER 9. THE INFANTRY PACK, AND DISPLAY OF EQUIPMENT AND CLOTHING.
- CHAPTER 10. CEREMONIES; AND MANUAL OF THE COLOR, SWORD, AND GUIDON.
- CHAPTER 11. INTERIOR GUARD DUTY AND GUARD MOUNTING.
- CHAPTER 12. MARCHES, SECURITY ON THE MARCH, AND OUTPOSTS.
- CHAPTER 13. TENT DRILL AND SHELTER.
- CHAPTER 14. FIELD SANITATION, PERSONAL HYGIENE, AND FIRST AID.
- CHAPTER 15. EXTENDED-ORDER EXERCISES, COMBAT PRINCIPLES OF THE RIFLE SQUAD AND PLATOON, AND COMBAT SIGNALS.
- CHAPTER 16. TACTICS AND TECHNIQUE OF THE RIFLE COMPANY AND INFANTRY BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 17. THE DEFENSE AND ATTACK OF CITIES, RIOT DUTY, AND NATIONAL DISASTERS.
- CHAPTER 18. PHYSICAL DRILL.
- CHAPTER 19. SMALL ARMS MARKSMANSHIP.

LANDING-FORCE MANUAL

UNITED STATES NAVY

CHAPTER 4

FORMATIONS OF THE BATTALION, REGIMENT, AND BRIGADE

This chapter is based on BFM, FM 22-5.

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SECTION I

GENERAL

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General.....	4-1	3
Commands and orders.....	4-2	4
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4-1. *GENERAL*.—*a.* For organization of the battalion, regiment, and brigade, see chapter 1.

b. The regiment does not drill by command. Its battalions form and march as directed by the regimental commander. When practicable, the formation and movement of the subdivisions of the battalion and regiment should be made clear to subordinate commanders before starting the movement.

c. The battalion drills by command when in mass formation. Such drill is limited to movements for ceremonies where the units of the battalion execute the manual, facings, and marching, as one body at the command of the battalion commander. These movements are executed by the battalion as prescribed for the company.

d. The assembly of units in mass formation is directed by the battalion commander. Each company commander moves his company to its place in the most convenient manner.

e. To assume any formation, the battalion or regimental commander indicates the character of the formation desired, the point where the right (left) of the battalion or regiment is to be, and the direction in which the line or column is to face.

f. Upon completion of the movement ordered by the battalion commander, companies may be given ***At ease*** until another movement is ordered. In ceremonies, units remain at **attention** until ordered to stand at ease by the next higher commander.

g. After a battalion is halted, its subdivisions make no movement to correct alignment or position unless so directed by the battalion commander.

h. When a unit is presented to its commander or to a reviewing officer, the officer who presents it faces his unit in giving the commands 1. ***Present***, 2. ***ARMS***. When all elements of his unit are at ***Present arms***, he faces to the front and salutes (***Present sword*** if armed with a sword, or the ***Hand salute*** if armed with a pistol).

GENERAL

His staff salutes and terminates the salute with him. His guidon or flag bearer (if any) executes and terminates *Present guidon* with his salute.

i. Formations should be such that the squad columns are all either perpendicular to or parallel to the front.

4-2. *COMMANDS AND ORDERS*.—The commands or orders of the battalion or regimental commander are given orally, by bugle, by signal, or by means of staff officers or orderlies who communicate the desired directions.

4-3. *STAFF*.—*a*. The staff of a commander forms in his rear in one rank at a distance of one and one-half paces, the second officer in line immediately in rear of the commander. Enlisted personnel form one and one-half paces in rear of the commissioned staff. If only one officer is present, he is posted one pace to the right and one and one-half paces to the rear of the commander. Staff officers are arranged from right to left generally in order of rank, the senior on the right, but the commander may cause them to be arranged in any order desired by him. Enlisted personnel forming with the staff are posted in the same order from right to left as the officers of the staff, except that the bearer of the flag of a flag or general officer is on the right.

b. When necessary to reduce the front of the staff, as in marching, it forms a column of threes under the direction of the senior staff officer and follows the commander.

c. When it is prescribed that the staff change its position in order to place itself in rear of the battalion commander (who has faced about as when the battalion commander having formed his battalion, faces the reviewing officer by facing about), the senior staff officer will, by appropriate commands, cause the staff to execute left face, change direction to the right twice (column right), halt, face to the right, to place it in its correct position.

d. When the battalion commander faces to the right (left) and marches off, the staff conforms by making a turn, guiding on the staff officer on the right.

SECTION II

THE BATTALION

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To form in line with companies in mass formation (for ceremonies) _	4-6	6
To dismiss the battalion-----	4-7	7

4-4. *FORMATIONS*.—*a.* Formations for the battalion are shown in figures 1 to 4, inclusive.

b. The band, when attached to the battalion, is posted by the adjutant as indicated in figures 2 and 3.

c. Attached units take position as directed by the battalion commander and conform to the formation and movements of the units of the battalion.

d. In whatever direction the battalion faces, the companies are designated numerically from right to left in line and from head to rear in column; that is, first company, second company, third company.

e. The terms “right” and “left” apply to actual right and left as the troops face.

f. The designation “center company” indicates the right center or the actual center company, according to whether the number of companies is even or odd.

g. Personnel of the battalion headquarters company may be attached to other companies of the battalion for ceremonies.

h. The battalion commander supervises the formation from such positions as will best enable him to correct alignments, intervals, and distances. With his staff (less the adjutant) he takes post in time to receive the report.

i. Officers armed with a sword in the interior of a mass formation remain at *Carry sword* at all times except when the battalion is **at rest** or **at ease**.

j. Any formation or combination of formations may be employed to meet existing conditions of space or purpose.

k. The plans and training officer is normally designated as the adjutant of the formation and takes post accordingly.

l. The battalion adjutant, who commands the headquarters company, is with his company when it is formed as a unit.

THE BATTALION

m. During marches the supply officer, the medical officer, and the communication officer march with their respective organizations in the headquarters company unless otherwise directed.

n. When the battalion is in mass formation, personnel of the machine gun and special weapons company and of the headquarters company not required to man carts will be combined and formed as the left company of the mass. Carts of both companies will be combined and formed on a 4-cart or 2-cart front (as directed) as the rear element of the mass (see fig. 4).

4-5. *TO FORM IN LINE WITH COMPANIES IN LINE (FOR CEREMONIES)*.—*a.* The adjutant indicates the line on which the battalion is to form with two flags, one on each flank. The adjutant takes post on the right of the line and facing down the line.

b. When the band is present, the adjutant causes *Adjutant's Call* to be sounded.

c. Companies are marched from the left flank in column of threes (or fours) to their positions in line, the line of march being sufficiently off the line on which the battalion is to form to permit the expeditious alignment of guides of the right company by the adjutant. As each company arrives at its position, it is halted (taking care to halt in rear of the position it is to occupy), faced to the front, and the company commander orders, **GUIDES ON THE LINE**. At this command, the guide of each platoon moves (at the trail) to his position on the line indicated by the flags and faces the adjutant. The adjutant will align the guides of the right company accurately; the guides of other companies will cover accurately the guides already on the line, the guides indicating the right of their respective platoons. As soon as the guides have established themselves on the line, the company is aligned as prescribed in paragraph 3-40. The right man of the front rank places himself so that his chest touches the guide.

d. When all units have reached their positions on the line, the band stops playing and the adjutant moves by the most direct route to a position midway between the battalion and the battalion commander and faces the battalion.

e. When all units are dressed, the adjutant commands: 1. **Guides**, 2. **POST**. At this command, the guides move to their normal position in ranks.

4-6. *TO FORM IN LINE WITH COMPANIES IN MASS FORMATION (FOR CEREMONIES)* (fig. 3).—The procedure is the same as in forming in line except that—

TO DISMISS THE BATTALION

a. Companies are marched from either flank in mass formation to their position in line, the line of march being well in rear of the line on which the battalion is to form. When opposite its place in line, each company executes **Left (right) turn**. As soon as this column movement has been initiated, the company commander orders, **GUIDE OF RIGHT PLATOON ON THE LINE**. At this command, the guide of the right platoon moves out at the double time to the line indicated by the flags, halts, comes to the order arms, and faces the adjutant. The guide indicates the right of the company.

b. At the command 1. **Guides**, 2. **POST**, the guides move to their normal positions.

4-7. **TO DISMISS THE BATTALION**.—The battalion commander commands: **DISMISS YOUR COMPANIES**.

a. Each company commander salutes the battalion commander and marches his company to the place of dismissal and dismisses it as prescribed in paragraph 3-39.

b. The battalion commander then dismisses the staff including enlisted personnel.

THE BATTALION

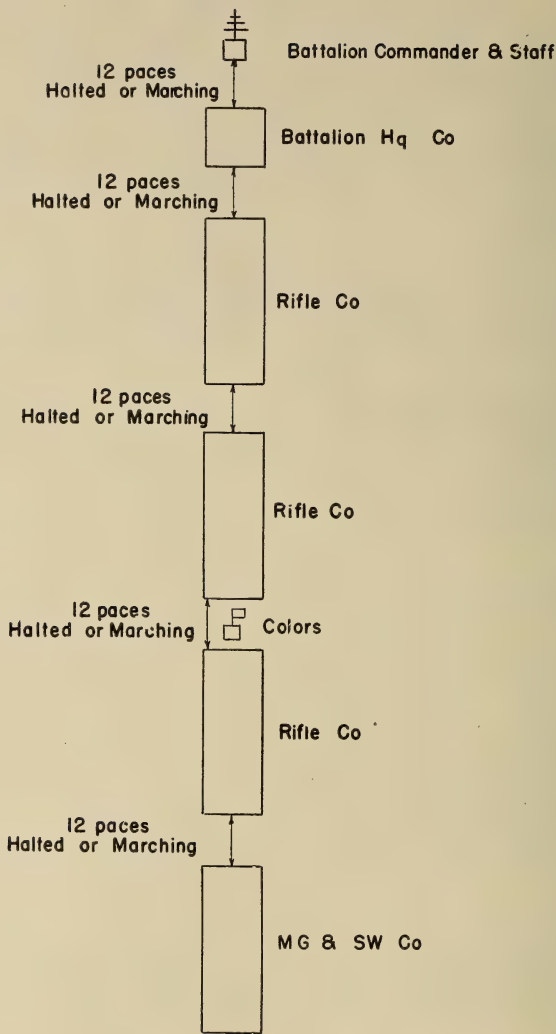
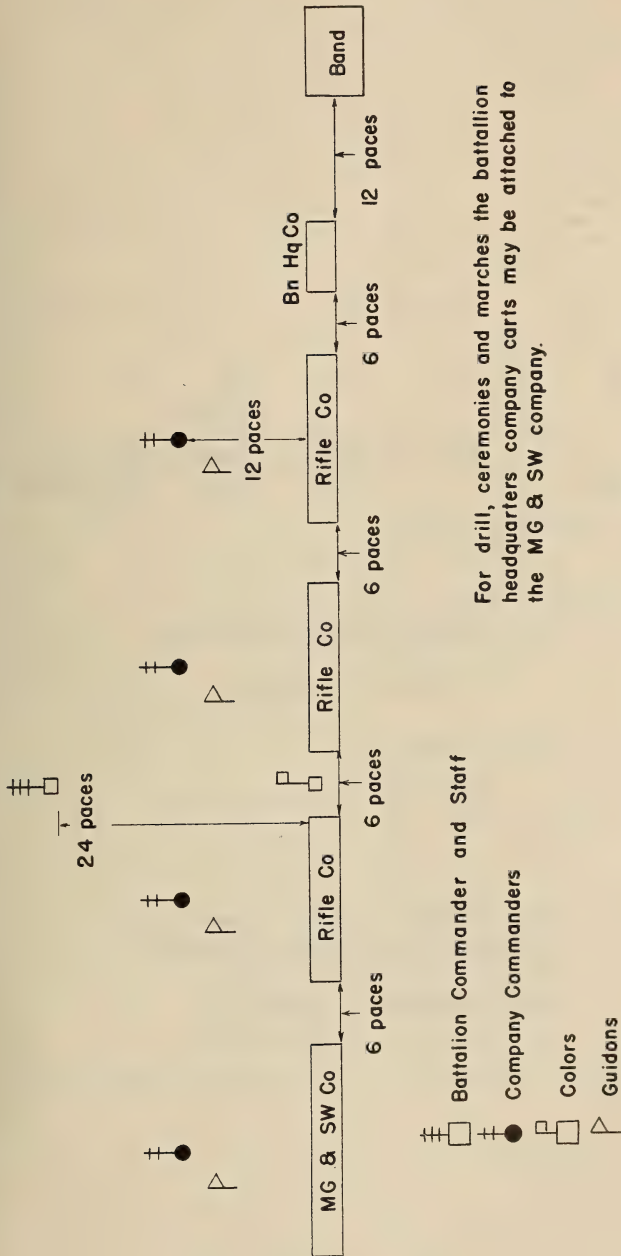


FIGURE 1.—Battalion in column.

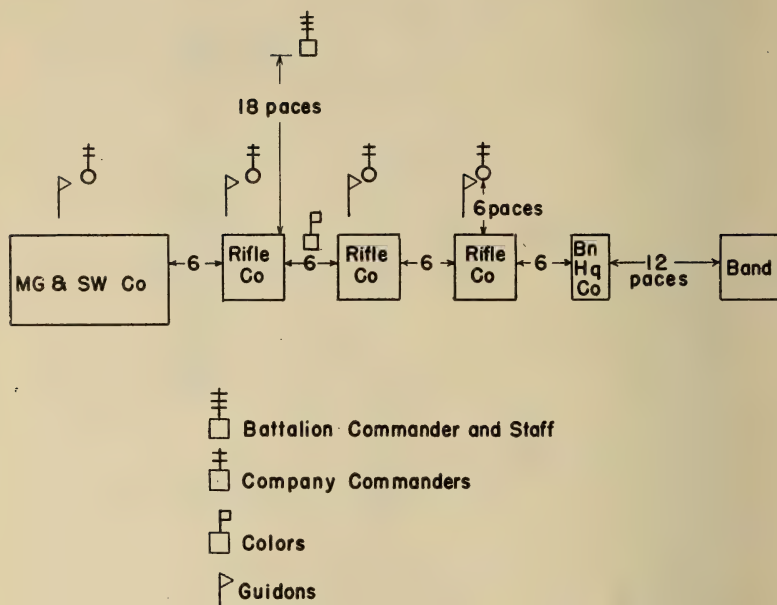
TO DISMISS THE BATTALION



For drill, ceremonies and marches the battalion headquarters company carts may be attached to the MG & SW company.

FIGURE 2.—Battalion in line with companies in line.

THE BATTALION



Rifle companies may form and march with
3 to 6 paces interval between platoons
to make the mass appear larger.
Battalion headquarters company may
be attached to the MG & SW Co.

FIGURE 3.—Battalion in line with companies in mass formation.

TO DISMISS THE BATTALION

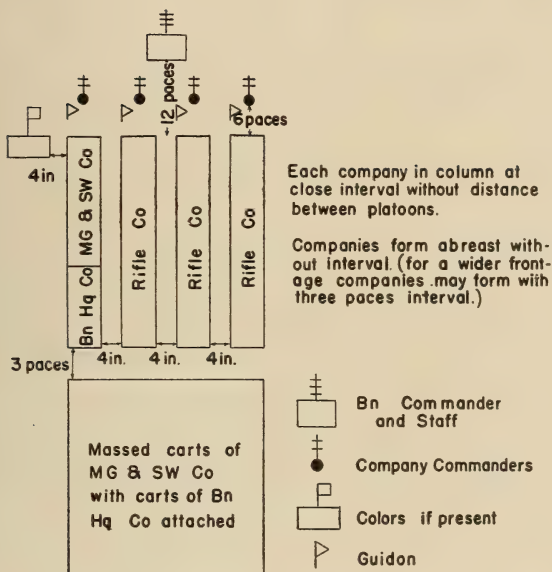


FIGURE 4.—Battalion in mass formation.

SECTION III

THE REGIMENT

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4-8. *FORMATIONS*.—*a*. In column with battalions in column of threes or fours (fig. 5).

b. In column with battalions in mass formation (fig. 6).

c. In line of battalions.—The battalions may be—

(1) In mass formation (fig. 7).

(2) In line of company masses (fig. 8).

4-9. *VARIATIONS IN FORMATION*.—*a*. Carts may be grouped into one mass.

b. Machine gun and special-weapons companies may be grouped into a provisional battalion.

c. The headquarters company and service company (generally referred to as special units) may be grouped into a provisional battalion.

4-10. *TO FORM THE REGIMENT*.—*a*. The regimental commander prescribes the formation, the place where the regiment is to form, the direction in which the regiment will face, the hour of forming, location of head of column (or right of the line), and the order in column or line of the headquarters, band, battalions, special and attached units, and trains.

b. The regimental commander gives his orders, either orally or in writing. They may be given directly to the officers concerned or may be communicated to them through his staff.

c. Before forming the regiment, the regimental commander may cause the positions which are to be taken by the larger elements to be indicated by markers.

d. Battalion commanders and commanders of special and attached units move their commands to the place of formation and dispose them as ordered.

e. Upon arrival at their designated places in the prescribed formation, battalion and special unit commanders report the fact to the

THE REGIMENT

regimental commander; if units are combined, the commander thereof reports the arrival of the combined units at their designated place.

f. Battalions and special units are given **Rest** upon arrival at their designated places.

g. For ceremonies, the procedure as described for the formation of a battalion is followed except that battalion adjutants take post on the line on which the regiment is to form at *Adjutant's Call*. Battalion adjutants face down the line from position six paces from the point where the right flank of each battalion will rest. When all units of their battalions are on line they move to their posts by the most direct routes.

4-11. *TO MARCH*.—*a.* The regiment being in any formation, the regimental commander prescribes the formation in which the regiment will march and the route to be followed and puts the command in motion by prescribing the hour, by giving the commands, 1. **Forward**, 2. **MARCH**, by bugle, or by signal.

b. To march in route column, the regiment is not usually formed and put into march as a unit. Battalion commanders and special and attached unit commanders are informed in orders of the destination, route, hour of starting, initial point, order of march, and, if necessary, the distance between elements. They are held responsible for having their commands take their places in the column at the prescribed times and places.

c. The regiment may be formed for march in route column with the platoons and companies in columns of threes or fours in accordance with the formations indicated in figure 4, Chapter 3. If requirements of road space, air defense, or other considerations render it desirable, all platoons and companies within the regiment may be formed in column of threes, in column of twos on one side of the road, or in column of twos with single files on each side of the road.

4-12. *TO HALT*.—To halt the regiment, the regimental commander may either prescribe the hour when the column will be halted or he may give the command or signal **Halt**.

4-13. *TO DISMISS THE REGIMENT*.—To dismiss the regiment, the regimental commander orders the battalion and special and attached unit commanders to dismiss their organizations. The order may be given directly to the commanders concerned or it may be communicated to them through staff officers or messengers.

TO MARCH

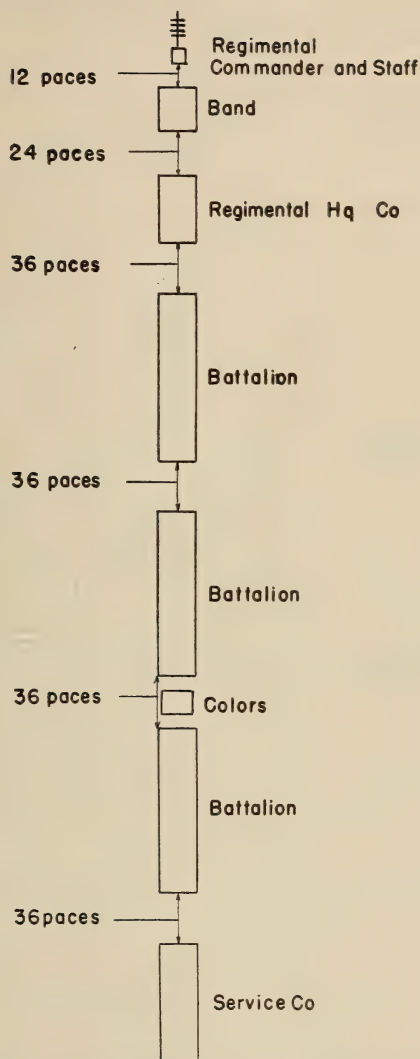


FIGURE 5.—Regiment in column with battalions in column of three or fours.

THE REGIMENT

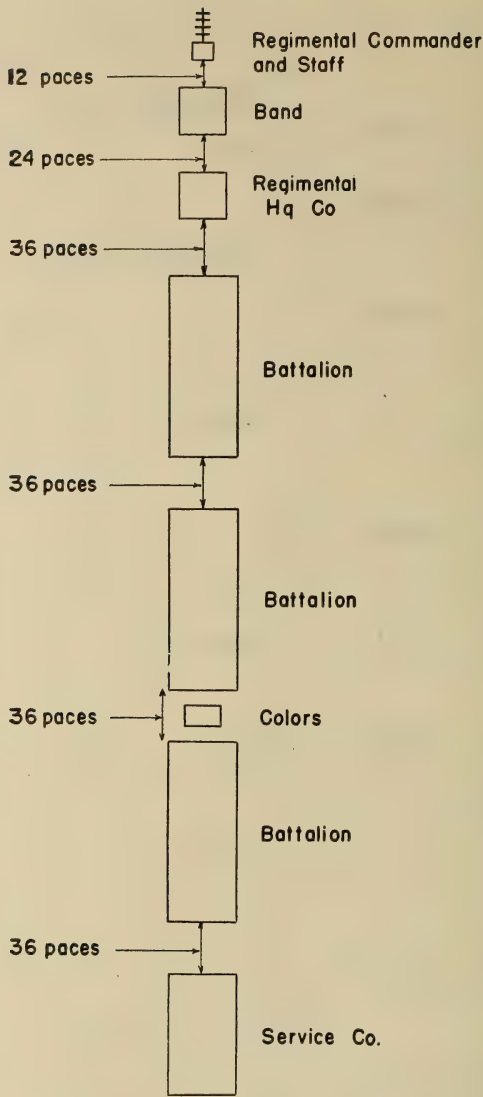


FIGURE 6.—Regiment in column with battalions in mass formation.

TO MARCH

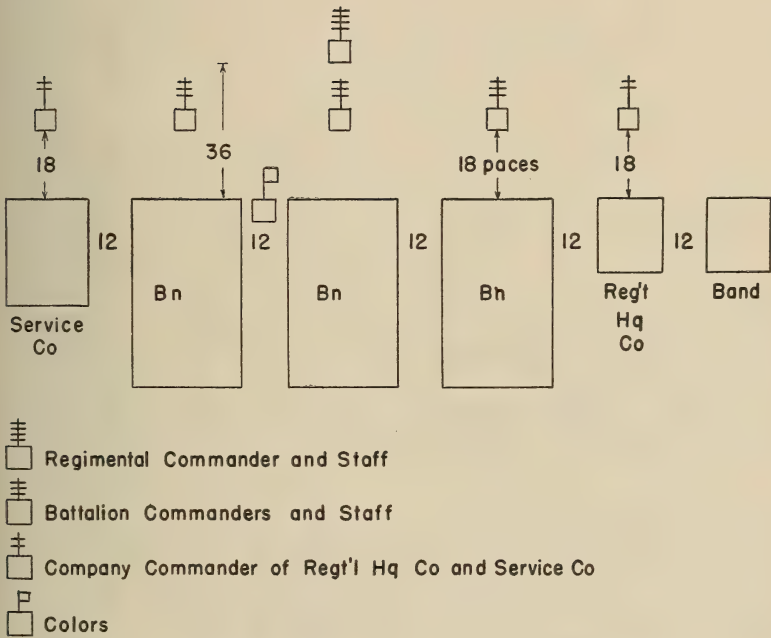


FIGURE 7.—Regiment in line with battalions in mass formation.

THE REGIMENT

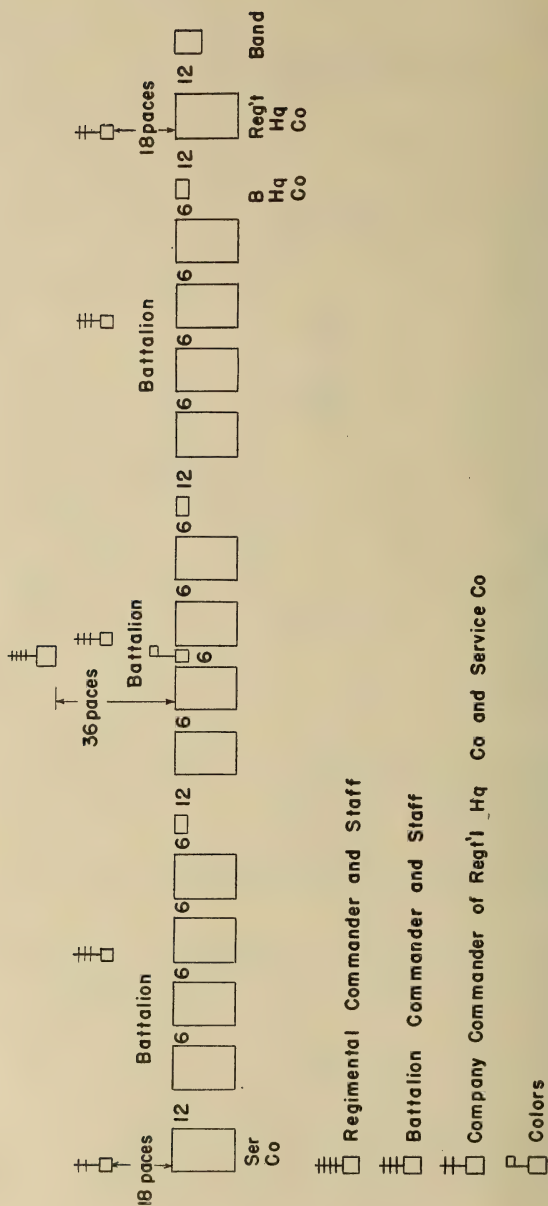


FIGURE 8.—Regiment in line with companies in mass formation.

SECTION IV

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4-14. *GENERAL.*—*a.* See Chapter 1 for organization of the brigade.

b. The brigade does not drill.

c. There are no prescribed formations for the brigade.

4-15. *TO FORM THE BRIGADE.*—*a* To assume any formation the brigade commander issues verbal or written orders prescribing the formation and the method of forming. When necessary, such orders are accompanied by march tables.

b. To form the brigade in route column, unit commanders are informed of the destination, the route, the hour of starting, the initial point, the order of march, and, if necessary, the distances between elements. The unit commanders will be responsible for having their commands in readiness to take their places in the column at the prescribed time and place.

c. For formations other than in route column, the brigade commander ordinarily causes the positions of the larger elements to be indicated by markers on the ground where the brigade is to form.

d. At ceremonies the brigade headquarters company is posted as the right element of the brigade in line and the leading element in column.

4-16. *TO MARCH.*—*a.* If the brigade is in route column, the brigade commander puts it in march by prescribing the hour of starting.

b. If the brigade is in any formation, other than in route column, the brigade commander indicates in orders the formation in which it will march and puts it in march by command, by signal, or by prescribing the hour of starting.

4-17. *TO HALT.*—*a.* To halt the brigade except at hourly halts, the brigade commander issues the necessary order or halts the leading unit by command or signal.

THE BRIGADE

b. To halt the brigade for hourly halts, the brigade commander prescribes, in his march order, when and for how long such halts will be made.

4-18. *TO DISMISS THE BRIGADE.*—To dismiss the brigade, the brigade commander issues the necessary orders.

SECTION V

BATTALION AND REGIMENTAL INSPECTION

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4-19. *GENERAL*.—The company is the basic unit for inspection. Battalion, regimental and higher commanders or inspecting officers should inspect each company in its own area or have each company march to a designated place at a specified time, for inspection. Under special conditions an entire battalion or regiment may be formed and inspected in one large formation.

4-20. *BATTALION INSPECTION*.—*a*. The battalion is formed in column of companies, each company being formed as prescribed for the company. Any other convenient formation may be used. Before the inspection, the battalion commander indicates whether heavy weapons and special equipment are to be laid out for inspection or left on their transportation.

b. The headquarters, rifle, and weapons' units are prepared and inspected in the manner prescribed for the company.

c. The battalion being in column of platoons, the battalion commander commands: **PREPARE FOR INSPECTION**. At this command each company and the band, if present, are prepared for inspection. Buglers rejoin their companies. The color bearer and the color guard proceed to the head of the column and take position three paces in rear of the staff.

d. The battalion commander then commands: **REST**, returns sword, and inspects his staff and the color guard. When the battalion commander approaches the staff, the officers, without command, come to attention at **Order sword**. When they have been inspected, they return sword and accompany the battalion commander. As the battalion commander approaches the color guard, the color bearer commands: 1. **Color guard**, 2. **ATTENTION**. The color guard may be dismissed as soon as inspected.

e. The battalion commander commencing at the head of the column makes an inspection of the arms, accouterments, dress, and appearance of the personnel of the band and of the several companies.

BATTALION AND REGIMENTAL INSPECTION

f. When the inspection of the band has been completed, it may be dismissed or it may take position at the rear of the column and play during the inspection.

g. As the battalion commander approaches each company, its commander faces toward it and commands: 1. **Company**, 2. **ATTENTION**, faces to the front, and salutes. As soon as he has been inspected, the company commander faces about and commands: **REST**, returns sword, and accompanies the battalion commander. The inspection proceeds as prescribed for company inspection.

h. The battalion commander may direct the company commanders to make the detailed inspection of the arms or other equipment of their companies. He may require officers of his staff to assist in the inspection, especially by checking equipment.

i. When a company has been inspected, the battalion commander directs that it be dismissed or otherwise occupied.

j. When desired, the battalion commander may cause companies not under inspection to stack arms, fall out, and resume their places in time to be inspected.

k. If the inspecting officer is an officer other than the battalion commander, the latter prepares the battalion for inspection as prescribed in the preceding paragraphs. Upon the approach of the inspecting officer, the battalion commander brings the battalion to attention, faces to the front, and salutes. The inspecting officer inspects the battalion commander who then commands: **REST**, returns sword, and accompanies the inspecting officer. The inspection then proceeds as previously prescribed.

l. During inspection of the camp or quarters of a company, the battalion commander accompanied by the company commander, is preceded by the chief petty officer. Such other officers as may be designated follow the battalion commander.

m. Field and combat trains are inspected at such place and in such formation as the battalion commander may direct.

4-21. **REGIMENTAL INSPECTION.**—Only in very exceptional situations will a regimental inspection be ordered; however, when held, the means and principles are the same as described for the battalion. The regiment may be formed in any formation suitable to the space and ground available. Battalions are prepared for inspection as prescribed for battalion inspection. Upon the approach of the inspecting officer, each battalion commander brings his battalion to attention and salutes. Battalion inspection follows.

LANDING-FORCE MANUAL

UNITED STATES NAVY

1938



CHAPTER 5

CART DRILL

(Reprinted 1941 with all changes up to and including No. 5)



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON: 1939

FOREWORD

The Landing-Force Manual, U. S. Navy, 1938, is published in nineteen chapters as follows:

- CHAPTER 1. INTRODUCTION.
- CHAPTER 2. INDIVIDUAL INSTRUCTION WITHOUT ARMS AND WITH ARMS (RIFLE, AUTOMATIC RIFLE, SUBMACHINE GUN, PISTOL, AND BAYONET).
- CHAPTER 3. DRILL, THE SQUAD, PLATOON, AND COMPANY.
- CHAPTER 4. FORMATIONS OF THE BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 5. CART DRILL.
- CHAPTER 6. DRILL, MACHINE GUN, CALIBER .30.
- CHAPTER 7. DRILL, THE SPECIAL-WEAPONS PLATOON (37-MM GUN AND 81-MM MORTAR).
- CHAPTER 8. DRILL, ARTILLERY.
- CHAPTER 9. THE INFANTRY PACK, AND DISPLAY OF EQUIPMENT AND CLOTHING.
- CHAPTER 10. CEREMONIES; AND MANUAL OF THE COLOR, SWORD, AND GUIDON.
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- CHAPTER 17. THE DEFENSE AND ATTACK OF CITIES, RIOT DUTY, AND NATIONAL DISASTERS.
- CHAPTER 18. PHYSICAL DRILL.
- CHAPTER 19. SMALL ARMS MARKSMANSHIP.

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UNITED STATES NAVY

CHAPTER 5

CART DRILL

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SECTION I

INTRODUCTION

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5-1. *THE CART*.—The cart is a small hand-drawn two-wheeled vehicle designed for the transport of infantry weapons, ammunition, and matériel. It is particularly useful for machine-gun and special-weapons companies. Though constructed to carry 1,000 pounds, service loads should be limited to about 600 pounds.

5-2. *BASIS OF CART DRILL*.—The machine-gun squad is the basis for cart drill because it is so equipped. The drill of units equipped with carts is, with the variations herein described, executed by the same commands and generally in the same manner as for the rifle squad, platoon, and company. The purpose of this section is to cover only such variations in commands and movements as are necessary for units equipped with carts. With little modification, this drill is applicable to any unit equipped with hand-drawn vehicles.

5-3. *GENERAL RULES*.—*a. Cart*, unless otherwise indicated, refers to the cart and its crew as well as the 37 mm. gun, on wheels, with sponge staff through the lunette swivels of the trail.

b. Squad refers to the men of the squad and to the two carts with which equipped.

c. Drags (not to be confused with artillery drags) are the horizontal handles at right angles to the tongue of the cart as well as the 37 mm. sponge staff when inserted through the lunette swivels.

d. To man the drags.—The drag is always gripped at the outer end with both hands, backs of the hands up, thumbs down.

e. To change direction.—When changing direction with carts, drag handles are raised shoulder high until the turn has been completed.

f. Application of infantry drill.—Units equipped with carts execute **eyes right (left), halts, forward march, half step, double time, quick time, at ease, rest, fall in, fall out, and alignments** generally as prescribed for rifle units.

g. Guides.—The same rules apply as for guides of rifle units (see Chapter 3).

INTRODUCTION

h. Men armed with the rifle.—At formations, drills, and ceremonies, the rifle is carried slung over the right shoulder as described in Chapter 2, or slung diagonally across the back, muzzle up, sling over the left shoulder. Men so armed do not execute the manual except that rifles are ordered unslung prior to the command **Inspection arms**, or when specially directed.

i. To halt.—If marching, the squad halts at the command **Halt, Action, By hand, or On wheels**.

j. Grounding drags.—Drags are grounded at the original assembly and at the command 1. **Ground**, 2. **DRAGS**. Each dragman places the drags directly in his front. At the command **Halt** men remain at the drag position until the command 1. **Ground**, 2. **DRAGS** is given.

k. Taking drags.—Before starting any movement the command 1. **Man**, 2. **DRAGS** is given before the command for movement. Dragmen take the drags from the ground and hold them as described in paragraph 5-3*d*.

SECTION II

SQUAD DRILL

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Individual cart movements.....	5-11	6
Being in column, to change direction.....	5-12	8
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On wheels.....	5-14	8

5-4. *ORGANIZATION OF THE SQUAD.*—Normally, the squad equipped with carts consists of a petty officer (squad leader) and 8 nonrated men. Equipping the squad with 2 carts does not necessitate a change in its organization.

5-5. *TO FORM THE SQUAD.*—*a.* The squad leader (instructor) places himself 3 paces in front of where the center of the squad is to be and commands: **FALL IN.**

b. Men fall in at the carts as indicated in figure 1, align themselves to the right, and ground the drags.

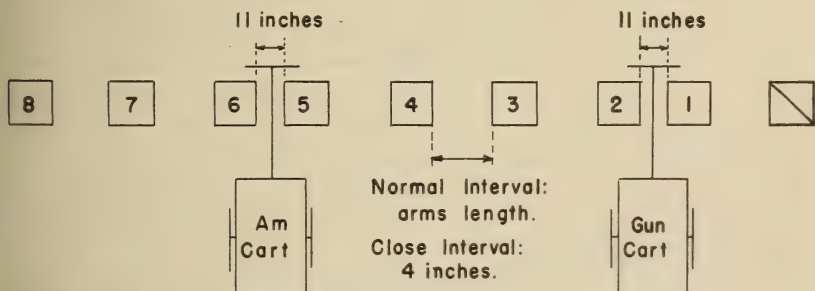


FIGURE 1.—The squad in line as part of a larger unit.

c. The squad leader then commands: **NUMBER OFF**. All except the right file execute **Eyes right** and, beginning on the right, they number off from right to left as follows: **ONE, TWO, THREE, FOUR, FIVE, SIX, SEVEN, EIGHT**. Each man turns his head and eyes to the front as he numbers off.

SQUAD DRILL

d. The squad leader then inspects pistols and rifles as prescribed in Chapter 2.

e. When the squad is part of a larger unit, the squad leader takes post as an additional file on the right flank of his squad as shown in figure 1.

5-6. *TO ALIGN THE SQUAD*.—Executed by the same commands and in the same manner as for the rifle squad (see Chapter 3), except that Nos. 1 and 5 do not raise their left arms or elbows.

5-7. *PARADE REST*.—Executed by the same commands and in the same manner as prescribed in Chapter 2 except that dragmen lower the drags to the full extent of their arms.

5-8. *PRESENT ARMS*.—Executed by the same commands as prescribed in Chapter 2. Dragmen stand fast, others execute the hand salute.

5-9. *THE OBLIQUE MARCH*.—Being in any formation, to oblique, or to resume the original direction from the oblique, the commands are the same as for a rifle squad. At the command *March*, carts turn 45 degrees to the right (left) in marching and continue in the new direction retaining their relative positions without attempting to bring the carts abreast. The command *Halt* is not given during the oblique.

5-10. *TO MOVE TO THE REAR*.—a. Being at a halt or mark time, to move not more than 5 paces to the rear, the command is: 1. *Backward*, 2. *MARCH*, 3. *Squad*, 4. *HALT*. Executed as prescribed for the rifle squad (see Chapter 2).

b. Being at a halt or mark time, to move more than 5 paces to the rear the command is: 1. *To the rear by hand*, 2. *MARCH*, 3. *Squad*, 4. *HALT*. At the command *To the rear by hand*, dragmen move to the front of the drags and face the rear. Other men face about. At the command *March*, all step off with the full step. At the command *Halt*, men halt, take original posts, and face to the front.

5-11. *INDIVIDUAL CART MOVEMENTS*.—a. *Being in line to form column of carts to a flank*.—(1) The command is: 1. *Carts right (left)*, 2. *MARCH*.

(2) At the command *March* each cart executes *Cart right*. Dragmen wheel the carts to the right, pivoting the cart on the right wheel,

INDIVIDUAL CART MOVEMENTS

and halt. Other men, moving by the most convenient and direct route, place themselves in the positions indicated in figure 2 and halt.

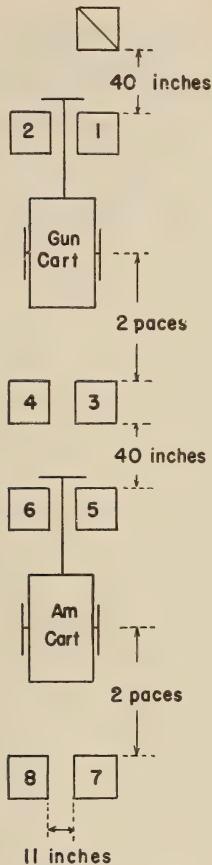


FIGURE 2.—The squad in column as part of a larger unit.

b. Being in column of carts, to form line to a flank.—The commands and the movements of the dragmen are the same as in paragraph *a*. Other men, moving by the most convenient and direct route, place themselves in the positions indicated in figure 1 and halt.

c. The movements described above correspond to **Right (left) face** executed by rifle units.

d. When units equipped with carts and rifle units execute simultaneously a movement from line to column, carts must incline slightly to the left (or right) when the march is next resumed, in order to cover in column.

SQUAD DRILL

5-12. *BEING IN COLUMN, TO CHANGE DIRECTION.*—Executed by the same commands and generally in the same manner as prescribed for rifle units.

5-13. *BY HAND.*—*To remove weapons, equipment, and ammunition from the carts.*—(1) The command is: **BY HAND.**

(2) At this command drags are grounded, men take their respective loads from the carts and proceed as directed.

5-14. *ON WHEELS.*—*To replace weapons, equipment, and ammunition on the carts.*—(1) The command is: **ON WHEELS.**

(2) At this command men replace their respective loads on the cart and take post.

SECTION III

PLATOON AND COMPANY DRILL

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5-15. *THE PLATOON.*—*a.* Formations for the platoon are shown in Figures 3 and 4.

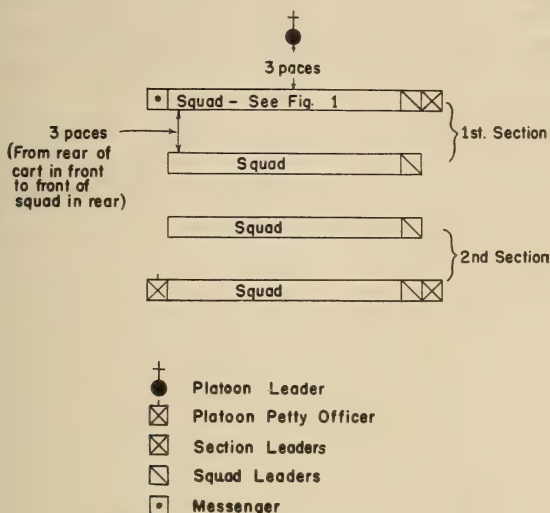


FIGURE 3.—The platoon in line.

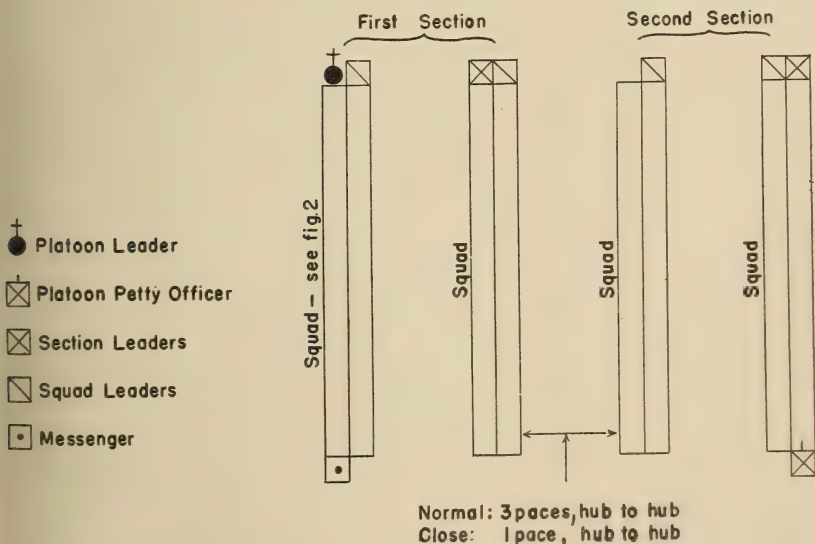


FIGURE 4.—The platoon in column.

PLATOON AND COMPANY DRILL

b. Being in march with the carts in column of twos, threes, or fours, the platoon closes and extends the interval by the same commands and generally in the same manner as described in paragraphs 3-25 and 3-26. Units equipped with carts do not execute these movements from a halt.

c. Being at a halt with carts, the platoon forms column of twos (double column of carts), re-forms column of fours, forms single file (single column of carts) and reforms column of threes (or fours), by the same commands and generally in the same manner as described in paragraphs 3-33 *b*, *c* and *d*.

5-16. *THE COMPANY*.—Two or more cart platoons will be formed as a company. Formations and movements employed are generally the same as for a rifle company (see Chapter 3), with the changes indicated in previous paragraphs.



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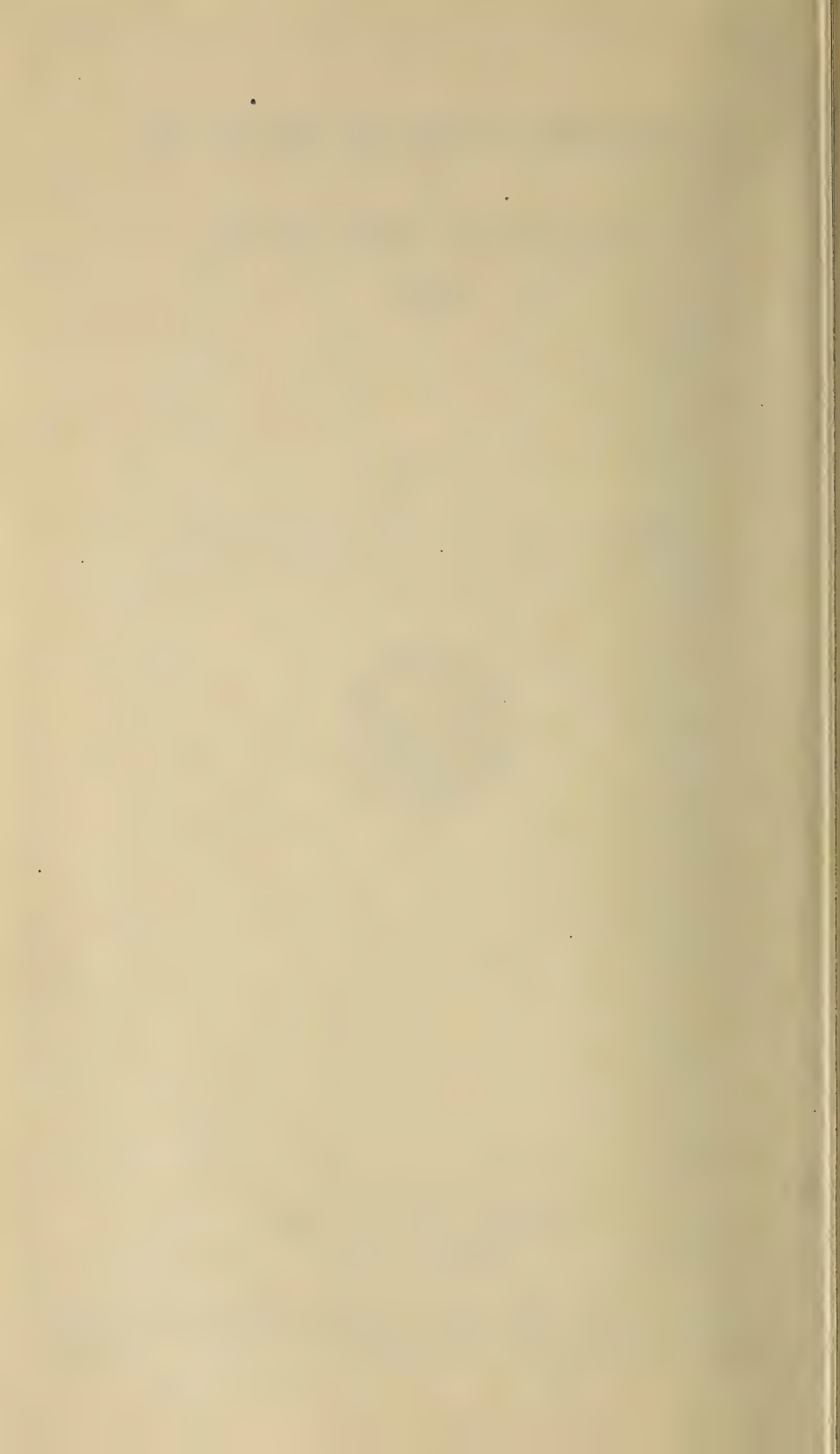
CHAPTER 6

DRILL, MACHINE GUN, CALIBER .30

(Reprinted 1941 with all changes up to and including No. 5)



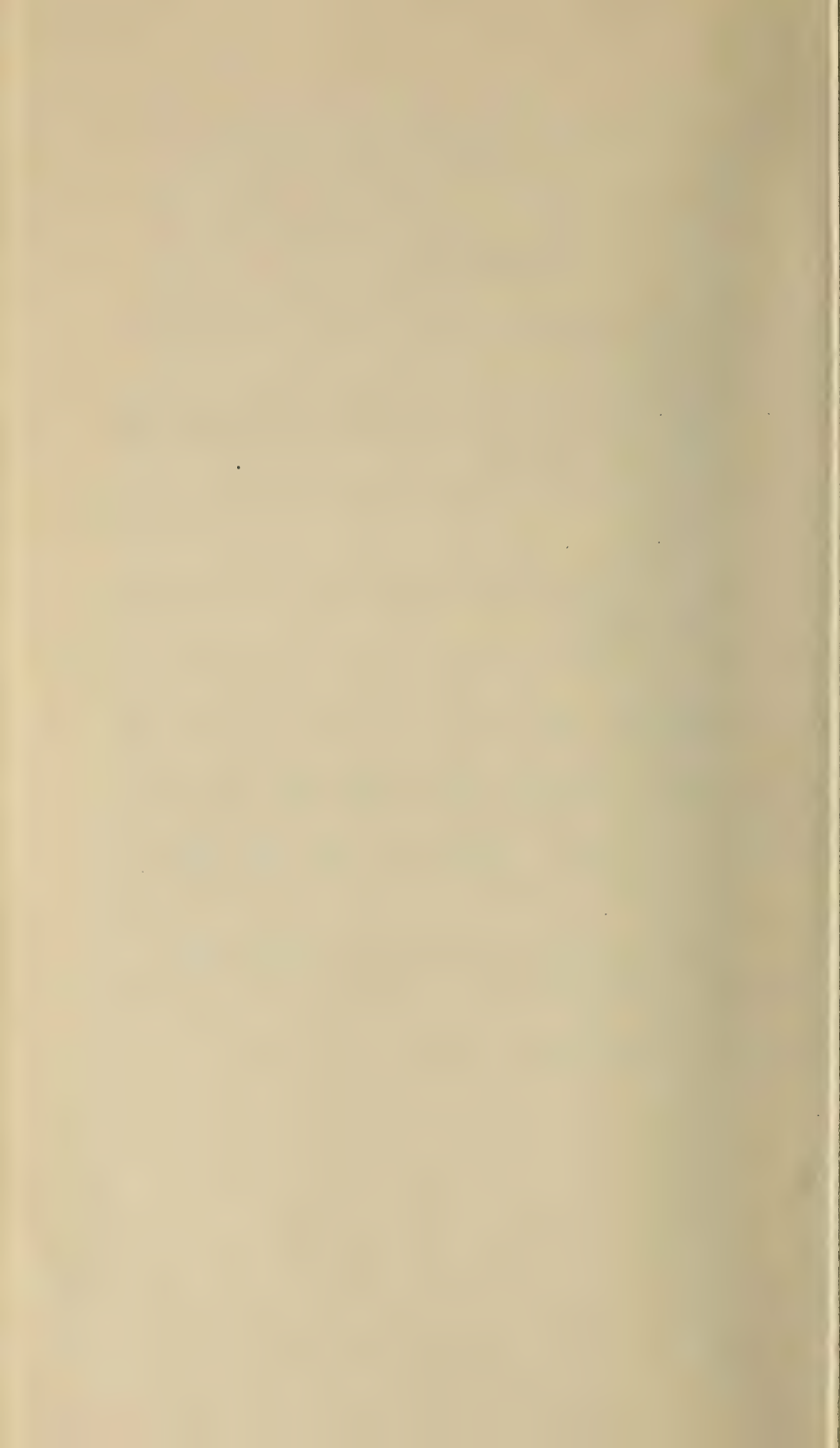
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CHAPTER 6

DRILL, MACHINE GUN, CALIBER .30

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SECTION I

INTRODUCTION

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6-1. *SCOPE OF CHAPTER.*—*a.* The provisions of sections I to IV, inclusive, of this chapter are applicable to units equipped with the Browning machine gun, caliber .30, with tripod M1917A1. (For tripods M1917 and M1918 see OP 593.) Section V applies only to units equipped with the Lewis gun (see OP 406).

b. Sections I to III are based principally on TR 420-56. These sections include:

- (1) The organization of machine-gun units.
- (2) Gun drills and general instructions in convenient form essential for preliminary training in machine-gunnery. (For training in the mechanics and technique of fire, see OP 593.)
- (3) Company inspection.

c. Tactical employment.—For tactical employment of the machine gun, see chapter 17 and OP's 730, 731, 732, and 733.

d. Training for landing operations.—The training of machine-gun personnel for landing operations requiring extensive use of machine-gun support, necessitates a detailed knowledge of the publications listed in the following table.

TABLE 1.—Machine-gun publications

Subject	OP (USN) No.	War Department pamphlet
Fire-control instruments.....	727	BFM, Vol. III, Part 2.
Machine-gun company.....	593	BFM, Vol. III, Part 3.
Includes—		
(1) Mechanics of the Browning machine gun (assembling, functioning, etc.).		
(2) Machine-gun marksmanship.		
(3) Technique of machine-gun fire, direct laying.		
(4) Technique of machine-gun fire, indirect laying.		
(5) Machine-gun barrages and concentrations.		
Combat practice firing, Infantry weapons.....	532	BFM, Vol. III, Part 5.
Antiaircraft marksmanship, Infantry weapons.....	728	BFM, Vol. III, Part 6.
Battery drill for indirect fire.....	729	TR 420-56.
Extended order, the machine-gun squad, section, and platoon (includes gun emplacements).	730	TR 420-90.
Combat principles, the machine-gun section.....	731	TR 420-125.
Combat principles, the machine-gun platoon.....	732	TR 420-130.
Combat principles, the machine-gun company.....	733	TR 420-135.
Range table, Caliber 0.30.....	558	Fire control table, 0.30-C-2.

Abbreviations:

BFM—War Department Basic Field Manual.

TR—War Department Training Regulations.

OP—Ordnance pamphlet (USN). The OP number is the number assigned by the Bureau of Ordnance (USN) to the particular War Department pamphlet. The pamphlet is the same.

NOTE.—Ordnance pamphlets are issued to ships in commission and naval stations, and should be requested from the Bureau of Ordnance by ordnance pamphlet number. (See Ordnance Pamphlet No. 0 for index of pamphlets.)

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6-2. *OBJECTIVE OF GUN DRILL.*—*a.* Two objectives must be kept in mind as follows:

(1) *Accuracy and speed.*—Initially, accuracy is the most important consideration; when it has been secured, emphasis is given to speed.

(2) *Discipline and teamwork.*—The duties of each member of the squad must be so thoroughly taught that their performance is executed instinctively, without being affected by the excitement of action. Individual members must merge their individual skill into smooth, rapid, and effective teamwork. Each man must be trained in the duties of the other members of his squad, in order that the rapidity and accuracy of fire will not be materially reduced by casualties.

b. Movements executed at attention.—To secure the above objectives, all movements are executed at attention unless otherwise ordered.

6-3. *GENERAL RULES FOR DRILL.*—*a. Positions during instruction.*—Nos. 4 to 8, inclusive, may be directed to take the **stand clear** or other position near the gun to observe the drill.

b. Initial training.—The squad is first trained in the duties of Nos. 1, 2, and 3. When proficient in these duties, the squad is instructed in the duties of all the members.

c. Positions during drill.—Except as otherwise prescribed, the squad leader will take position near the gun where he can best control his squad. Unnecessary bunching of men for mounting the gun must be avoided.

d. On wheels.—The term “on wheels” means that the machine gun is loaded on its cart and that, except as otherwise indicated, the equipment and ammunition is similarly loaded.

e. Commands and signals.—In gun drills, except when otherwise prescribed, No. 1 repeats all commands and No. 2 repeats all signals.

f. Commands and signals for completion of movements.—In gun drills, to announce the completion of any movement such as to load or to lay the gun, the man responsible for execution of the movement calls: **UP**, and No. 2 signals: **I AM READY**.

g. Men armed with the rifle.—At formations, drills, and ceremonies, the rifle is carried slung as prescribed in paragraph 5-3 k.

GENERAL RULES FOR DRILL

h. Individual armament.—The normal armament for members of the machine-gun squad is the pistol for the squad leader and Nos. 1, 2, and 3, and rifles for the remainder.

i. Movements.—At drills and ceremonies, machine-gun units comply with chapter 5 when formed with equipment and carts; and, as far as practicable, with the principles and rules prescribed for drill of rifle units when formed with equipment only.

j. To halt.—If marching, the squad halts at the command **Halt, Action, By hand, or On wheels.**

k. Grounding equipment.—Equipment carried by hand is grounded at the original assembly and at the command 1. **Ground, 2. EQUIPMENT.** Each man places his load or drags directly in his front.

l. Taking equipment.—Equipment carried by hand is taken at preparatory commands for movement.

m. Vacancies.—Within the squad, when any member is absent or becomes a casualty, each man below the missing number moves up one place, the last number being left vacant, then the second last, and so on.

n. Carrying slings.—Men who carry ammunition boxes or articles of equipment are equipped with a carrying sling.

o. Breast straps.—When the route is over rough ground, one or more of the squad, provided with breast straps for that purpose, may assist in drawing the carts.

p. Simulated loads.—When empty ammunition boxes are used for drill, the necessary additional weight should be added to them to simulate actual loads.

q. Carts limbered.—On marches the ammunition cart may be limbered to the gun cart.

r. Infantry drill.—Personnel should occasionally be formed and drilled as infantry; in which case the provisions of chapter 3 apply.

s. Safety precautions.—Instruction involving the use of ball ammunition will as a rule be given in connection with marksmanship (see OP 593). Safety precautions include—

(1) No firing will be permitted except under direct supervision of an officer.

(2) No gun will be half loaded or fully loaded, except by command.

INTRODUCTION

(3) No gun will be dismounted after firing until an officer has inspected it to see that it is unloaded. A cleaning rod should be passed through the barrel from the muzzle as part of this inspection.

(4) No person will be allowed in front of the guns until an officer has ordered all guns cleared and has ascertained that this order has been carried out.

SECTION II

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6-4. ORGANIZATION OF THE MACHINE-GUN SQUAD.—

The squad at normal strength comprises—

1 petty officer, third class.—Squad leader, responsible for equipment and supplies.

8 nonrated men.—Each assigned a permanent number from 1 to 8, inclusive, as follows:

No. 1.—Gunner; lays and fires the gun.

No. 2.—Loader and assistant gunner; loads the gun, assists No. 1 as directed, and keeps the water jacket filled.

No. 3.—Ammunition carrier; supplies ammunition, water, oil, spare parts to the gun position and returns empty belts and boxes to other carriers.

Nos. 4 to 8, inclusive.—Ammunition carriers; supply ammunition, water, oil, and spare parts to No. 3 and return empty belts and boxes to the platoon munitions distributing point.

GUN DRILL, THE SQUAD

6-5. *EQUIPMENT*.—*a. The following articles are required for squad gun drill:*

- 1 gun.
- 1 tripod.
- 1 cradle.
- 1 steam-condensing device.
- 1 flash hider.
- 1 cleaning rod.
- 1 spare barrel, with case.
- 1 pair asbestos mittens.
- 12 ammunition belts (unless ball ammunition is used, only two belts are partially loaded, with about 10 dummy cartridges each).
- 12 ammunition chests.
- 1 water chest.
- 1 spare parts chest.
- 1 gun cart.
- 1 ammunition cart.
- 6 carrying slings.

b. Additional articles include—

- 1 gun cover.
- 1 tripod and cradle cover.
- 1 clinometer.
- 4 aiming stakes.
- 1 belt filling machine (see subpar. *c* below).
- 4 breast straps.
- 1 shovel.
- 3 sandbags, 16" x 34".
- 1 sandbag, 24" x 36" (used in sandbag firing base).
- 1 trail float (a piece of wood 1" x 3" x 12" used in sandbag firing base).

Targets (see OP 593).

c. For combat.—When operating alone, a machine-gun squad carries a belt-filling machine in lieu of an ammunition chest; if part of a machine-gun section, only one squad carries a belt-filling machine.

6-6. *TRANSPORTATION OF EQUIPMENT*.—*a. When the gun is on wheels, equipment is transported as follows:*

Squad leader.—No load.

Nos. 1 and 2.—Draw the gun cart containing: Gun, tripod, cradle, steam-condensing device, flash hider, cleaning rod, spare barrel, asbestos mittens, one ammunition chest and the water chest.

TO FORM THE GUN SQUAD

Nos. 5 and 6.—Draw the ammunition cart containing: 11 ammunition chests, the spare parts chest, and 6 carrying slings when not worn.

Nos. 3, 4, 7, and 8.—No load.

b. When the gun is carried by hand, equipment is transported as follows:

Squad leader.—Carries the cleaning rod and spare barrel.

No. 1.—Carries the assembled tripod and cradle:

(1) By closely folding the tripod legs and trail and placing it on either shoulder; or

(2) By clamping the legs at an angle of about 90 degrees with the trail and placing them over the shoulders so that the trail lies flat against the back.

No. 2.—Carries the gun, with flash hider and steam-condensing device attached, and the asbestos mittens. The asbestos mittens are placed on either shoulder; the gun rests on the mittens, with the left side plate down, and is held by the grip.

No. 3.—Carries an ammunition chest and water chest, with carrying sling.

No. 4.—Carries an ammunition chest and spare-parts chest, with carrying sling.

Nos. 5 to 8 inclusive.—Each carry two ammunition chests, with a carrying sling. The two remaining ammunition chests are left on the ammunition cart.

c. Additional articles are loaded on the carts or carried by hand as directed.

6-7. *TO FORM THE GUN SQUAD.*—*a.* The squad leader (instructor) places himself 3 paces in front of where the center of the squad is to be and commands: **FALL IN.**

(1) *With equipment on wheels.*—Men fall in at the gun and ammunition carts as indicated in figure 1 (A), align themselves to the right, and ground the drags.

(2) *Without equipment, or with equipment by hand.*—Men fall in, align themselves as prescribed for a rifle squad, and ground equipment.

b. The squad leader then commands: **NUMBER OFF.** All except the right file execute **eyes right** and, beginning on the right, they number off from right to left as follows: **ONE, TWO, THREE, FOUR, FIVE, SIX, SEVEN, EIGHT.** Each man turns his head and eyes to the front as he numbers off.

GUN DRILL, THE SQUAD

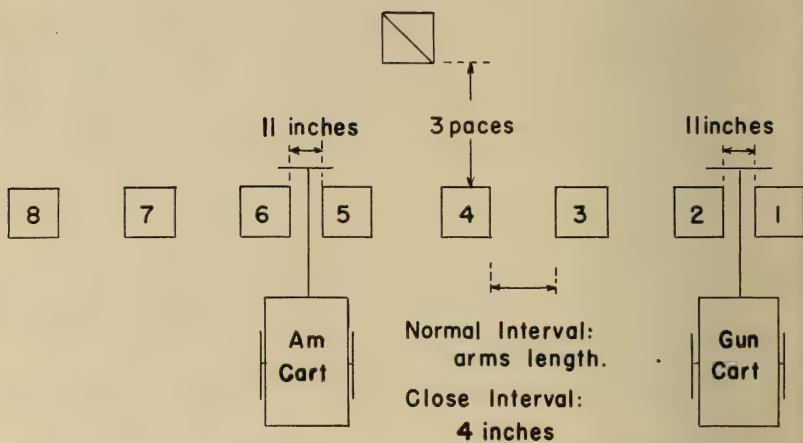


FIGURE 1(A).—The machine-gun squad in line with carts.

TO FORM SQUAD COLUMN

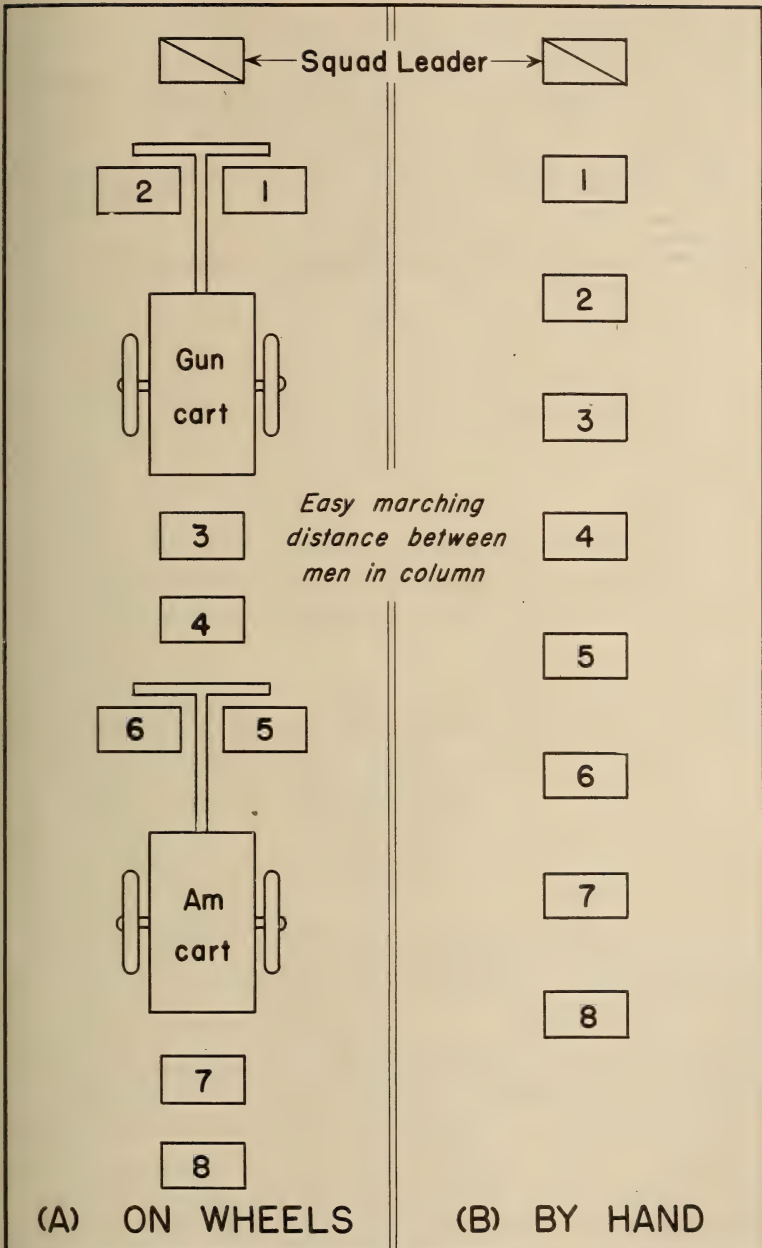


FIGURE 2.—Squad column, the machine-gun squad with equipment.

GUN DRILL, THE SQUAD

c. The squad leader then inspects pistols and rifles as prescribed in chapter 2.

d. When the squad is part of a larger unit, the squad leader takes post as an additional file on the right flank of his squad.

6-8. *TO FORM SQUAD COLUMN.*—*The squad being in line, gun on wheels or carried by hand; or deployed as skirmishers, gun carried by hand, to form squad column.*—

(1) The command is: 1. **Squad column**, 2. **MARCH**.

FIGURE 3.—Deleted.

(2) At the command **March**, members of the squad follow the squad leader at easy marching distance as indicated in figure 2 (A) when on wheels, or figure 2 (B) when by hand.

6-9. *TO DEPLOY AS SKIRMISHERS.*—When equipment is carried by hand, a formation similar to that of adjacent units may be prescribed if desired. Machine-gun squads, however, represent teams serving a single weapon. Therefore the deployment of machine-gun squads is limited to taking up a dispersed formation to prevent casualties. When firing the crew is at the weapon. The usual deployment for machine-gun squads is therefore an irregular column (squad column).

TO ASSEMBLE

6-10. *TO ASSEMBLE.*—*The squad being in squad column, gun on wheels or carried by hand; or deployed as skirmishers, gun carried by hand, to assemble.*—

(1) The command is: 1. **Assemble**, 2. **MARCH**.

(2) At the command **March**, if marching, the squad leader halts. Men move toward him and form in line as indicated in figure 1 (A) when on wheels, or as prescribed for a rifle squad when by hand.

6-11. *SIGNALS.*—The machine-gun squad may be assembled, deployed, and maneuvered by the same signals as for the rifle squad (see chapter 15) and in addition the signals given in paragraph 15-50.

6-12. *TO REMOVE THE GUN AND EQUIPMENT FROM CARTS.*—*The squad being in any formation, gun on wheels, to remove the gun and equipment from the carts.*—

(1) The command is: **BY HAND**.

(2) The drags are grounded.

(3) Men remove their individual loads (see par. 6-6b).

(4) The carts are located as directed by the squad leader.

(5) The squad then forms as indicated in figure 2 (B) or as directed.

6-13. *TO REPLACE THE GUN AND EQUIPMENT ON CARTS.*—*The squad being in any formation, gun carried by hand, to replace the gun and equipment on carts.*—

(1) The command is: **ON WHEELS**.

(2) The carts are procured as directed.

(3) Men put their loads on the carts.

(4) The squad then forms as indicated in figure 2 (A) or, if so directed, as indicated in figure 1 (A).

6-14. *TO EQUIP FOR GUN DRILL.*—*a.* Normally, equipment required is obtained before the squad is formed.

b. *The squad being in any formation, to get equipment.*—

(1) The command is: 1. **On wheels (By hand)**, 2. **EQUIP FOR GUN DRILL**.

GUN DRILL, THE SQUAD

(2) Men fall out, get their assigned loads, and assemble in the original formation without command.

6-15. *TO PREPARE EQUIPMENT FOR ACTION.*—*a. To lay out equipment.*—The squad being in any formation, gun carried by hand, the squad leader takes post in front of where he wishes the squad to form and commands: **LAY OUT EQUIPMENT.**

(1) At this command No. 1 takes post 3 paces from, and facing the squad leader and the remainder of the squad forms in squad column behind him (see par. 6-8), distance between men at easy marching distance unless otherwise directed.

(2) Each man takes the prone position after grounding his load as follows:

No. 1.—Tripod on his right, trail to the rear.

No. 2.—Gun in front, muzzle pointing to the left (gun resting on its cover).

No. 3.—Chests in front, 1 foot apart; ammunition chest on the right, latch to the front; water chest on the left, lid to the front.

Nos. 4 to 8.—Chests in front, 1 foot apart, latches to the front.

b. To examine equipment.—The command is: **EXAMINE EQUIPMENT.** Each man examines his load as follows:

(1) *No. 1 examines the tripod and sees that—*

(a) Trail is so adjusted that gun will be at proper height when mounted (bottom of pintle about 8 inches above the ground).

(b) Legs and trail are closely folded and clamped, and strap securely buckled around trail.

(c) Cradle is aligned over the trail.

(d) Elevating arc is clamped at zero.

(e) Traversing clamp is tight.

(f) Traversing dial is clamped.

(g) Gun-pintle latch-lever is down.

(h) Pin is fully inserted in its carrying recess.

(i) Elevating-screw threads are exposed one-half inch to permit the free use of the elevating handwheel.

(j) Gear housing is centered in the traversing screw.

(k) Elevating and traversing micrometers are at zero.

(2) *No. 2 examines the gun as follows:*

(a) Pulls back the latch, raises the sight leaf and cover, pulls bolt to its rearmost position, engages extractor-cam plunger in rear of extractor-feed cam, examines gun and sees that—

1. Muzzle gland is properly packed and screwed in tight.

ACTION

2. Barrel is clear and clean.
3. Water jacket is full of water.
4. Water plugs and hose connections are tight.
5. Gun pintle is clean.

(b) He then lets the bolt go forward and sees that—

1. Headspace is correct, making necessary adjustments (see OP 593).
2. Barrel-locking spring functions correctly.
3. Moving parts are oiled and function without excessive friction.

(c) He then lowers and latches the cover, sets the sight with lower edges of sight-adjustment plate at 700 and wind gauge set at zero of the gun, lowers the sight leaf and pulls the trigger.

(3) *Nos. 3 to 8 inclusive examine their respective loads and see that—*

- (a) Cartridges are correctly placed and aligned. If live ammunition is not to be used, make a careful inspection to insure that ammunition belts contain no live rounds.
- (b) Belts are clean and dry.
- (c) Belts are correctly packed in the chests.
- (d) Chests are latched.
- (e) Water chest is full, lid screwed on, and outlet cap is tight.

c. Individual reports.—As each man completes the examination of his load he reports to the squad leader: **Equipment correct** (or such deficiencies as he has not been able to correct).

d. When conducted.—A thorough examination of the gun equipment is made for combat and at the beginning and end of a drill period.

e. Change of personnel.—Whenever a man's number and duties are changed he will examine equipment to assure himself that it is in proper condition for drill or combat.

f. The gunner examines the spare-parts chest and sees that it contains the required spare parts and equipment, including a filled oil can.

6-16. *ACTION.*—*a.* The gun may be put into action from **on wheels, by hand**, or any degree of readiness. The squad leader indicates the general direction of fire and the point where the gun will be mounted (emplaced) and commands or signals: **ACTION**. At this command, loads are removed from carts; carts are located as directed; tripod and gun are mounted; the gun is half loaded or

GUN DRILL, THE SQUAD

half loading is simulated; and, if the target is known, the gun is laid. The command **Action** should be followed by necessary instructions relative to the target, construction of a sandbag firing base, digging emplacement, utilization of cover, or other preparation of the gun position. In some situations it is desirable to have some riflemen (ammunition carriers) occupy firing positions on the flanks



FIGURE 4.—Mounting the tripod.

of the machine gun to participate in the fire fight or to assist in the defense of the gun.

b. Tripod (see fig. 4).—At the command **Action, No. 1**—

- (1) Grasps the trail with his right hand in front of the name plate.
- (2) Springs up.
- (3) Places his left hand under the gun-pintle housing.
- (4) Carries the tripod at a run to the designated point where he places it on the ground.
- (5) Straddles the trail.

ACTION

- (6) Unclamps both legs.
- (7) Grasps the trail with his right hand and, with left hand on the gun-pintle housing, swings the legs to the front.
- (8) Without change of position and with left forearm on the thigh, glances up to see that trail is aligned in the direction of fire.
- (9) Adjusts tripod so that traversing dial is level.
- (10) Tightly clamps both legs of the tripod with right hand.
- (11) Stamps trail shoe into the ground and right foot.

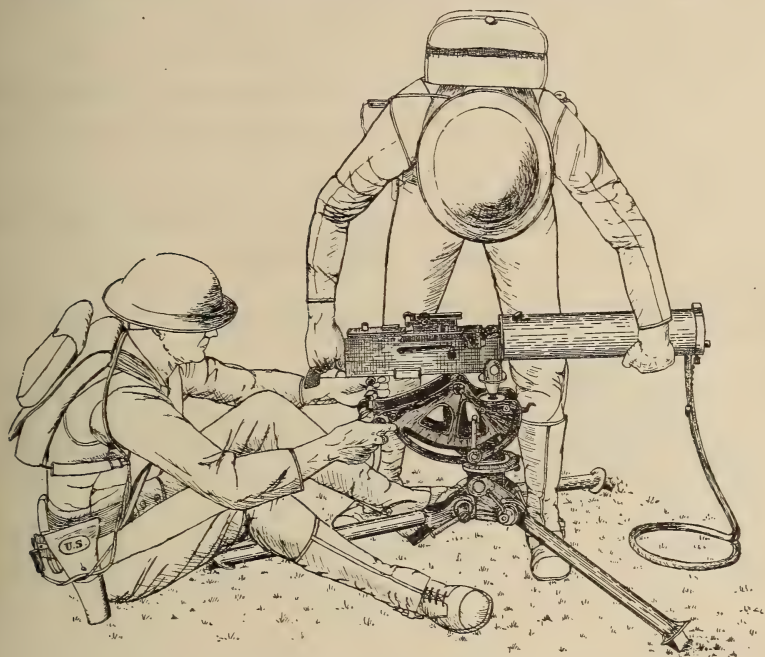


FIGURE 5.—Mounting the gun.

- (12) Sits down behind tripod.
 - (13) Withdraws pin and holds it in left hand.
- c. Gun.*—(1) When tripod is nearly mounted, *No. 2*—
- (a) Seizes grip of gun with right hand.
 - (b) Passes left hand over and under the water jacket.
 - (c) Springs to his feet, gun under left arm.
 - (d) Runs to left of, and facing the tripod just as *No. 1* removes pin.
 - (e) Places left foot between front legs of tripod.
 - (f) Places gun in position with gun pintle in its housing (see fig. 5).

GUN DRILL, THE SQUAD

- (g) With left hand, lifts latch lever, turning it down as soon as gun pintle is fully seated.
- (h) With left hand, throws free end of the steam-condensing device clear of the gun.
- (i) Lies down on left of and facing the gun, feet to the rear, head below and in rear of the feedway (see fig. 6).

(2) As soon as the gun pintle is seated in its housing (subpar. (g) above), *No. 1* aligns the hole in the head of the elevating screw with the hole in elevating bracket and inserts pin with his left hand. He then assumes the gunner's position described in subpar. *g* below.

d. Ammunition.—(1) *No. 3.*—

- (a) Arrives at the gun with one ammunition and one water chest as *No. 2* is lying down and places them within convenient reach.
 - (b) He then returns to his post about 10 paces in rear of the gun, and takes the prone position, or as necessary takes two additional ammunition chests forward.
- (2) *No. 2.*—
- (a) Places ammunition chest, latch to the right, in line with feedway ready for loading.
 - (b) Unless otherwise directed, assists *No. 1* to half load the gun.
 - (c) Places water chest in front of and leaning against left leg of the tripod, removes lid, and inserts free end of the steam-condensing device in the chest.
- (3) *Nos. 5 to 8, inclusive.*—
- (a) Unless otherwise directed, pass their ammunition chests to *No. 4*, and take prone position in squad column formation in rear of *No. 4*.
- (4) *No. 4.*—

- (a) Aligns ammunition chests, latches to the front, at post of *No. 3* and takes the prone position in rear of *No. 3*.

e. Sandbags.—*Nos. 5 and 6*, fill 3 sandbags three-quarters full, and place them within reach of *Nos. 1 and 2* who place them over the 3 shoes of the tripod. Sandbags should be used whenever time and facilities permit. They help stabilize the mount and afford some protection to the gunner and loader.

f. Half loading.—(1) As soon as the gun is mounted for action (or at the command: **HALF LOAD**), it is half loaded as follows:

- (a) *No. 2.*—Opens ammunition chest, grasps a fold of the belt between the thumb and forefinger of the right hand, where the brass tag joins the fabric, and pushes the tag through

ACTION

the feed opening as far as it will go; sees that the belt is straight and will feed properly; and that the cover of the gun is latched.

(b) *No. 1*.—Grasps the tag with his right hand as it is pushed through the belt exit; gives it a quick jerk to the right; and pulls the bolt handle to its rearmost position and releases it.

(2) When the gun is half loaded, it may be loaded by pulling the bolt handle to the rear a second time. The gun is always loaded at the command **LOAD** or **COMMENCE FIRING**.

g. The gunner's position (see fig. 6).—The gunner lays the gun, and fires it without affecting the laying. He takes a position so that



FIGURE 6.—No. 1 in the gunner's position, the gun half loaded.

no part of his body is supported by the gun or tripod. An improper hold affects the size of the shot group and may throw it off the target. When action is executed, No. 1 assumes the gunner's position as follows:

(1) Sits in rear of the trail shoe, straddling the trail, with feet under the tripod.

(2) Knees are drawn up and turned out, and elbows are supported on the inner sides of the thighs.

(3) Thumb of the left hand is in rear of the stock with forefinger on the trigger. Other fingers of the left hand are relaxed and do not touch the gun. It is most important that the left hand be used only for pressing the trigger properly and not to overcome the natural vibration or lost motion of the gun or tripod.

GUN DRILL, THE SQUAD

(4) The right hand is near and in readiness to manipulate the traversing and elevating handwheels.

(5) The head is held in such a manner as to facilitate the gunner in relaying the gun after each burst.

6-17. *TO CLEAR THE GUN.*—*a.* When the gun has been in action it must be cleared before anyone moves in front of the muzzle.

b. The command is: **CLEAR GUN.** At this command No. 1 pulls back the latch and raises the sight leaf and cover. No. 2 removes the belt from the feedway. No. 1 then pulls the bolt handle to its rearmost position, engages the extractor-cam plunger behind the extractor-feed cam, and sees that the cartridge is ejected.

c. As an added precaution the muzzle may be lowered by pulling out the pin and depressing the gun as far as it will go.

d. **Clear gun is a safety precaution.**

6-18. *TO STAND CLEAR.*—The gun being mounted, the command is: **STAND CLEAR.** At this command the squad forms in single rank 5 paces in the rear of the tripod.

6-19. *TO TAKE POST.*—The squad being in **stand clear** position, the command is: **POST.** At this command, moving at a run, the squad takes post, Nos. 1 and 2 at the gun, No. 3 about 10 paces in rear of the gun, Nos. 4 to 8 inclusive in squad column formation in rear of No. 3. Available cover is utilized.

6-20. *OUT OF ACTION.*—*a.* The gun being in action, to take it out of action, the command is: 1. **By hand (On wheels), 2. OUT OF ACTION.**

b. Unloading.—At the command **Out of action** (or **Unload**), the gun, if loaded or half loaded, is unloaded as follows:

(1) *No. 1.*—Pulls back the latch with his left hand; and raises the sight leaf and cover with his right hand.

(2) *No. 2.*—Removes the belt from the feedway.

(3) *No. 1.*—Lowers the extractor with his left hand; lowers the cover with his right hand; sets the sight at 700 yards, wind gauge at zero of the gun; lowers the sight leaf with his left hand; pulls the bolt handle once to its rearmost position and releases it; then pulls the trigger with the left forefinger.

(4) *No. 2.*—Returns the belt to the ammunition chest and latches the cover.

c. The ammunition.—(1) *No. 3.*—Moves at a run to the gun; removes the steam-condensing device from the water chest, and replaces the lid

MOVING THE MOUNTED GUN SHORT DISTANCES

of the water chest; places the water chest and ammunition chest in his carrying sling or loads them on the ammunition cart.

(2) *Nos. 4 to 8 inclusive.*—Place their ammunition chests in their carrying slings or load them on the ammunition cart.

d. Gun.—As soon as the gun is unloaded, it is dismounted as follows:

(1) *No. 1.*—Removes the pin.

(2) *No. 2.*—Springs to his feet; with one motion, raises the latch lever and lifts the gun from the tripod; shoulders the gun or places it on the gun cart.

e. Tripod.—As soon as the gun has been removed from the cradle, the tripod is dismounted as follows:

(1) *No. 1.*—

(a) Replaces the pin in the carrying recess.

(b) Springs to his feet.

(c) Turns down the latch lever.

(d) Straddles the trail and unclamps both legs, allowing the tripod to collapse.

(e) Grasps the gun-pintle housing with the left hand; lifts tripod upward and to the rear, pivoting it on the trail shoe, until trail is vertical, and the legs fall back against the trail.

(f) Clamps both legs with his right hand; buckles the trail strap, and shoulders the tripod or loads it on the gun cart.

f. The squad then forms as indicated in figure 2 (A) when on wheels, or as indicated in figure 2 (B) when by hand; or, if so directed, as indicated in figure 1.

6-21. MOVING THE MOUNTED GUN SHORT DISTANCES.—

a. The mounted gun is dragged when personnel moves by crawling.

b. When crawling is not necessary it can be carried by 2 or 3 men by means of the legs and trail.

c. For safety, the gun should be unloaded before being moved.

6-22. MUNITIONS DISTRIBUTING POINT AND CHAIN OF SUPPLY.—*a.* An adequate and uninterrupted supply of ammunition is essential to successful employment of the machine gun in combat. The machine-gun squad advances in attack with an initial supply of ammunition carried by hand or on carts. Thereafter, replenishment of ammunition is provided for by the establishment and operation of a munitions distributing point and the maintenance of a chain of supply.

GUN DRILL, THE SQUAD

b. A separate munitions distributing point may be established or may be part of one provided for the infantry with which the guns are operating. The personnel assigned consists of the munitions petty officer from each platoon and one or more ammunition carriers from each machine-gun squad.

c. The establishment and operation of a munitions distributing point includes—

(1) Receipt of ammunition, water, oil, and spare parts.

(2) Filling empty ammunition belts with the belt-filling machine (see OP 113 or TR 320-35) except in emergencies, requiring them to be filled by hand. The belts are loaded with ball, or designated proportions of ball, tracer, and armor-piercing ammunition. A good proportion is four ball to one tracer. A good proportion is four ball to one tracer.

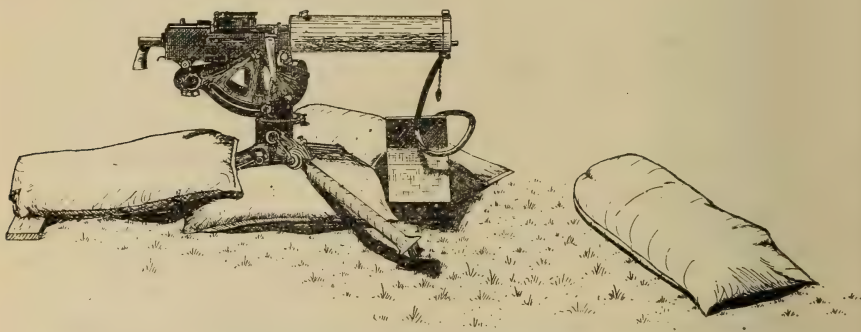


FIGURE 7.—The gun mounted on a sandbag firing base.

(3) Issue of filled ammunition chests to carrying parties for further delivery to the guns.

d. *Operation of the chain of supply.*—The machine-gun unit being engaged and a munitions distributing point having been established, operations consist of getting ammunition forward to the guns and sending back the empty chests and belts. Unit leaders are responsible for getting this done. The munitions petty officer provides such assistance as is possible.

6-23. *THE SANDBAG FIRING BASE.*—a. In order to insure maximum accuracy guns must be firmly emplaced. If a tripod is mounted on soft ground the vibration of firing will cause the feet to dig in. If mounted on rock or cement, excessive vibration will cause undue dispersion. Under these conditions it is desirable to use a sandbag firing base.

THE SANDBAG FIRING BASE

b. To construct the base, one large sandbag three-fourths full is placed on its side. The tripod is pressed or beaten down into the sandbag until the legs, trail, and pintle socket fit snugly into the bag. The front feet should barely touch the ground. The trail float (a board 1 by 3 by 12 inches) is then wedged under the trail shoe, at right angles to the trail if the ground is soft, to form a bearing surface. One sandbag, about three-fourths full, is placed on each leg. (See fig. 7.)

SECTION III

ORGANIZATION OF THE MACHINE-GUN SECTION, PLATOON, AND COMPANY

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The machine-gun platoon.....	6-25	25
The machine-gun company.....	6-26	25
The machine-gun and special-weapons company.....	6-27	25

6-24. *THE MACHINE-GUN SECTION.*—*a.* The machine-gun section comprises a petty officer, second class (section leader), two squads, and two guns with equipment (see par. 6-5).

b. When sections form as a platoon, section leaders act as platoon guides.

6-25. *THE MACHINE-GUN PLATOON.*—*a.* The machine-gun platoon comprises a platoon headquarters, two sections, and four guns with equipment (see par. 6-5), including necessary signal equipment.

b. The platoon headquarters comprises.—

1 lieutenant (jg) or ensign.—Platoon leader.

1 petty officer, first class.—Platoon petty officer.

1 petty officer, third class.—Munitions petty officer in charge of the platoon munitions distributing point; receives ammunition from the ship or from the battalion munitions distributing point; and has charge of and utilizes such ammunition carriers and carts as are assigned to him.

3 nonrated men.—Messengers (1 a signalmen), temporarily assigned to squads for drill, other than signal and messenger duty.

c. Men are assigned to squads according to their qualifications without reference to height.

6-26. *THE MACHINE-GUN COMPANY.*—The machine-gun company comprises a company headquarters, two (or three) platoons, and eight (or twelve) guns with equipment (see par. 6-5), including necessary communication personnel and equipment (see chapter 1, Organization of Infantry Battalion).

6-27. *THE MACHINE-GUN AND SPECIAL-WEAPONS COMPANY.*—It is sometimes desirable to have the machine-gun platoons and special-weapons platoon organized to form a machine-gun and special-weapons company (see chapter 1).

INSPECTION

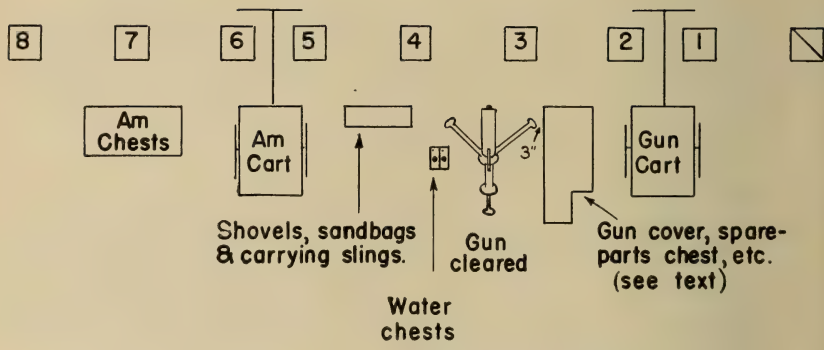


FIGURE 8.—Layout of equipment for inspection.

SECTION IV

INSPECTION, THE COMPANY

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Inspection of personal field equipment while in ranks.....	6-29	27
Inspection of machine-gun equipment.....	6-30	27

6-28. *INSPECTION OF INDIVIDUAL ARMS.*—Conducted generally as prescribed for a rifle company except:

a. When equipped with carts, drags are first grounded and ranks are not opened.

b. When equipment is carried by hand it is grounded and the company re-formed as a rifle company on the left of the grounded equipment.

6-29. *INSPECTION OF PERSONAL FIELD EQUIPMENT WHILE IN RANKS.*—Conducted generally as prescribed for a rifle company except that drags are grounded (or equipment carried by hand is grounded) and the company re-formed as a rifle company on the left of the carts or grounded equipment.

6-30. *INSPECTION OF MACHINE-GUN EQUIPMENT.*—*a.* Machine-gun equipment being grounded or on carts on the right of the position occupied by the company and packs having been opened (or individual inspection having been completed) the company commander directs **Lay out machine-gun equipment for inspection.**

b. Equipment is displayed at the position occupied by the carts or grounded equipment. Squads break ranks and, under the supervision of their leaders, place the gun and equipment as indicated in figure 8 and as described below.

c. The gun cover is placed on the left of the gun cart and upon it are placed from front to rear in the order named, the spare parts chest with its contents laid out, asbestos mittens, and steam-condensing device. The cleaning rod and spare barrel are placed along the right edge of the gun cover, the barrel lying on its case.

d. The gun is mounted on its tripod, muzzle to the front and slightly elevated, with the shoe of the right leg 3 inches from the gun cover. The gun is cleared as described in paragraph 6-17.

e. The water chests, shovels, sandbags, carrying slings, etc., are placed to the left of the gun.

INSPECTION, THE COMPANY

f. Ammunition chests are placed side by side, latches to the front, on the left of the ammunition cart. The ammunition chest covers are raised and the tag end of the ammunition belt in each chest is pulled out about 12 inches and laid back on the cover so that the belt may be easily inspected.

g. When carts are not present the gun is mounted at the position it occupied when grounded. The position of remaining equipment, arranged as described above, is determined by the position occupied by the gun when mounted.

h. Equipment having been displayed:

(1) Each platoon petty officer re-forms his platoon (squads forming as indicated in fig. 8), reports the platoon and, when so directed, takes his post as shown in figure 3, Chapter 5.

(2) Each platoon leader commands: **REST** and takes post, facing to the front, three paces in advance of the right flank of his platoon.

(3) The inspection is then conducted as described in Chapter 3.

(4) Upon completion of the inspection of each platoon, its leader takes his post, faces down the line, and commands: **ON WHEELS**, or as the case may be. The platoon replaces the guns and equipment and re-forms at the carts or grounded machine-gun equipment.

SECTION V

THE LEWIS MACHINE GUN

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6-31. *ORGANIZATION OF THE LEWIS GUN SQUAD.*—The Lewis gun squad has the same organization as the Browning machine-gun squad and the duties of the personnel are similar.

6-32. *TO LOAD.*—*a.* Gun squad in prone position, at the command: **LOAD**, No. 1, in rear of the gun, raises the sight; No. 2, on the left of the gun, places a magazine on the magazine post. No. 1 then draws back the charging handle. The gun is now ready to fire.

b. It is desirable that the charging handle be not operated until just before opening fire, as otherwise dust and sand may get into the bolt-way.

6-33. *TO UNLOAD.*—At the command: **UNLOAD**, No. 2 removes the magazine and No. 1, assisted by No. 2, unloads the gun as prescribed in OP 406.



LANDING-FORCE MANUAL

UNITED STATES NAVY

1938



CHAPTER 7

DRILL, THE SPECIAL-WEAPONS PLATOON

(37-MM GUN AND 81-MM MORTAR)

(Reprinted 1941 with all changes up to and including No. 5)



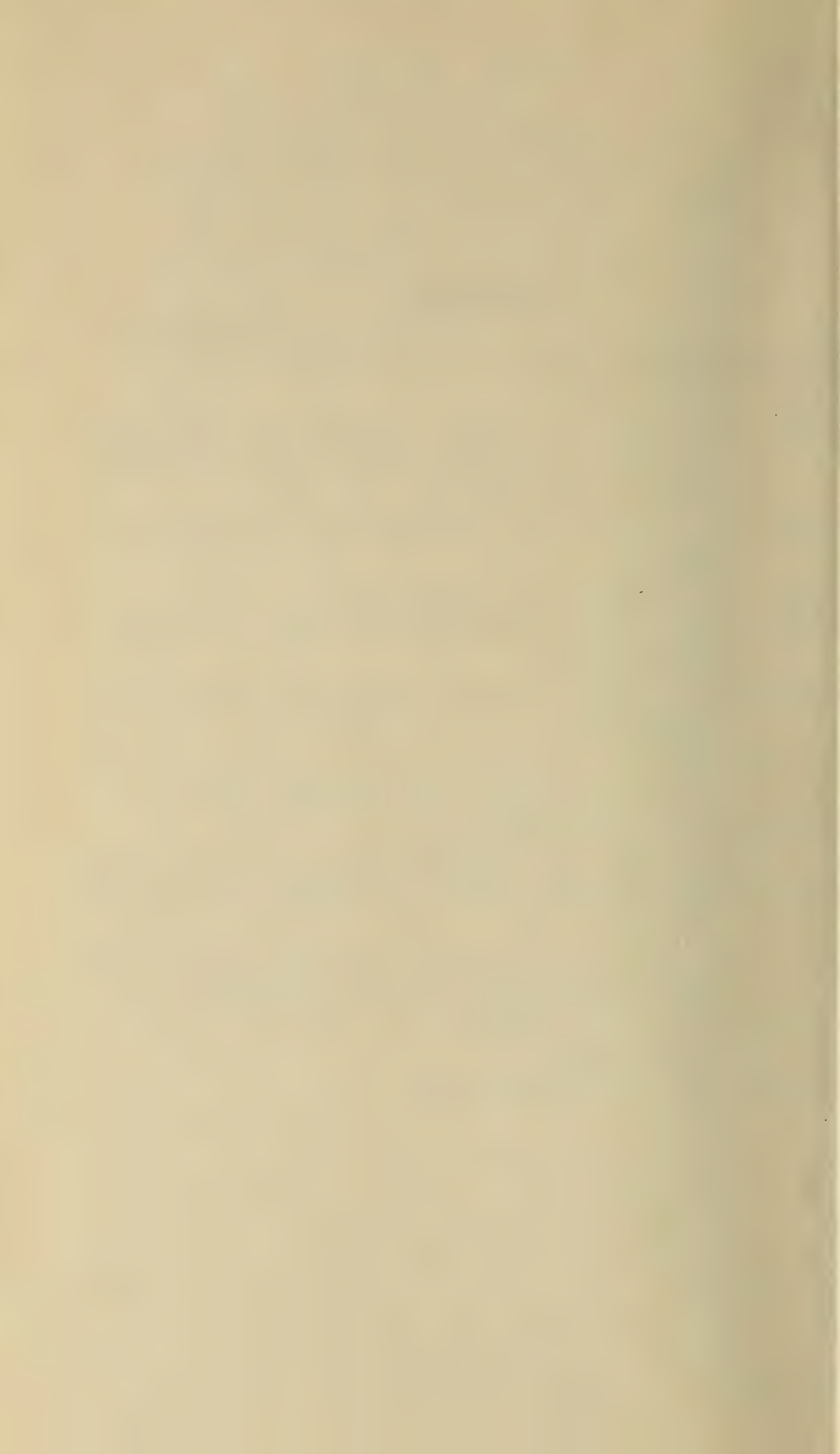
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FOREWORD

The Landing-Force Manual, U. S. Navy, 1938, is published in nineteen chapters as follows:

- CHAPTER 1. INTRODUCTION.
- CHAPTER 2. INDIVIDUAL INSTRUCTION WITHOUT ARMS AND WITH ARMS (RIFLE, AUTOMATIC RIFLE, SUBMACHINE GUN, PISTOL, AND BAYONET).
- CHAPTER 3. DRILL, THE SQUAD, PLATOON, AND COMPANY.
- CHAPTER 4. FORMATIONS OF THE BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 5. CART DRILL.
- CHAPTER 6. DRILL, MACHINE GUN, CALIBER .30.
- CHAPTER 7. DRILL, THE SPECIAL-WEAPONS PLATOON (37-MM GUN AND 81-MM MORTAR).
- CHAPTER 8. DRILL, ARTILLERY.
- CHAPTER 9. THE INFANTRY PACK, AND DISPLAY OF EQUIPMENT AND CLOTHING.
- CHAPTER 10. CEREMONIES; AND MANUAL OF THE COLOR, SWORD, AND GUIDON.
- CHAPTER 11. INTERIOR GUARD DUTY AND GUARD MOUNTING.
- CHAPTER 12. MARCHES, SECURITY ON THE MARCH, AND OUTPOSTS.
- CHAPTER 13. TENT DRILL AND SHELTER.
- CHAPTER 14. FIELD SANITATION, PERSONAL HYGIENE, AND FIRST AID.
- CHAPTER 15. EXTENDED-ORDER EXERCISES, COMBAT PRINCIPLES OF THE RIFLE SQUAD AND PLATOON, AND COMBAT SIGNALS.
- CHAPTER 16. TACTICS AND TECHNIQUE OF THE RIFLE COMPANY AND INFANTRY BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 17. THE DEFENSE AND ATTACK OF CITIES, RIOT DUTY, AND NATIONAL DISASTERS.
- CHAPTER 18. PHYSICAL DRILL.
- CHAPTER 19. SMALL ARMS MARKSMANSHIP.



LANDING-FORCE MANUAL

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CHAPTER 7

DRILL, THE SPECIAL-WEAPONS PLATOON (37-MM GUN AND 81-MM MORTAR)

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SECTION I

INTRODUCTION

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7-1. *PURPOSE*.—The purpose of this chapter is to prescribe drills of precision applicable to the special-weapons platoon which are not provided for in chapters 2 and 3.

7-2. *SPECIAL-WEAPONS PLATOON PUBLICATIONS*.—The following publications are distributed by the Bureau of Ordnance, U. S. Navy, and should be obtained for the use of officers charged with training 37-mm gun and 81-mm mortar units:

(1) OP 539—War Department Basic Field Manual, Volume III, Part 4, Howitzer company (Mechanical training, Marksmanship, and Technique of Fire for the 37-mm gun and 3-inch trench mortar).

(2) OP 737—War Department Basic Field Manual, Volume III, Part 4 A (81-mm mortar).

(3) Standard Nomenclature List (SNL) A-7—Gun and carriage, 37-mm, M1916, and carriage, gun, 37-mm, M1916A1 (parts and equipment).

(4) SNL F-33—Sight, quadrant, M1916 (for 37-mm gun, M1916).

(5) SNL F-31—Sight, telescopic, M1916 (for 37-mm gun, M1916).

(6) SNL R-1—Ammunition fixed, all types, for pack, light, and medium field artillery. (See 37-mm ammunition.)

(7) SNL R-5—Blank ammunition for pack, light, and medium field artillery. (See 37-mm ammunition.)

(8) SNL R-6—Ammunition instruction material for pack, light, and medium field artillery. (See 37-mm ammunition.)

(9) SNL A-33—Mortar, 81-mm M1, and mount, M1.

(10) SNL F-148—Sight, M2 (for 81-mm mortar, M1).

(11) SNL R-4—Ammunition, trench mortar, including fuzes, propelling charges, and other components (3-inch trench mortar and 81-mm mortar).

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(12) OP 727—Basic Field Manual, Volume III, Part 2—Fire Control Instruments (range finders, compass, angle-of-site instrument, etc.).

(13) BFM, FM 23-75, 37-mm Gun, M1916.

(14) Firing Table, FT 37-A-2 (37-mm gun).

(15) Firing Table, 81-A-1 (81-mm mortar).

7-3. *ORGANIZATION.*—*a.* The special-weapons platoon at normal strength comprises a platoon headquarters, 37-mm gun squad, 81-mm mortar squad, and ammunition squad.

b. The platoon headquarters comprises—

1 lieutenant (jg) or ensign.—Platoon leader.

1 ensign or warrant officer.—Second in command. He commands one of the pieces in the field when they are separated in action.

1 petty officer, first class.—Platoon petty officer. He forms the platoon and receives the reports of squad leaders at all formations.

4 nonrated men.—Messengers (should be signalmen and familiar with field telephone service).

c. Headquarters equipment.—The standard headquarters equipment of a special-weapons platoon includes the following articles, transported as directed by the platoon leader and used primarily to plot targets and record firing data for the 81-mm mortar:

1 firing table.

1 protractor graduated in mils.

1 1/10,000 or 1/20,000 scale.

Thumbtacks.

Transparent paper.

Pencils.

d. Division of platoon headquarters.—The characteristics and normal tasks of the 37-mm gun and 81-mm mortar require that they be placed in action independent of each other. A reasonable division of platoon headquarters for effective fire power and control is:

(1) *With the 81-mm mortar.*—

The platoon leader.

The platoon petty officer.

2 messengers.

GENERAL RULES FOR DRILLS

The 81-mm mortar squad (9 men).

The ammunition squad (9 men).

(2) *With the 37-mm gun.*—

The second in command.

2 messengers.

37-mm gun squad (9 men).

7-4. *GENERAL RULES FOR DRILLS AND FORMATIONS.*—*a.* The platoon forms as indicated in figure 1.

b. For instruction, ammunition carriers may be directed to remain near the gun to observe the drill.

c. For gun drills, except as otherwise prescribed, the squad leader (gun or mortar captain) takes a position near his gun or mortar where he can best control the actions of his squad.

d. Men armed with the rifle.—At formations, drills, and ceremonies, the rifle is carried slung as prescribed in paragraph 5-3h.

e. Movements.—At drills and ceremonies, special-weapons units comply with chapter 5 when formed with equipment and carts, and, as far as practicable, with the principles and rules prescribed for drill of rifle units when formed with equipment only.

f. To halt.—If marching, the squad halts at the command **Halt, Action, By hand, or On wheels.**

g. Vacancies.—Within the squad, when any number is absent or becomes a casualty, each man below the missing number moves up one place, the last number being left vacant, then the second last, and so on.

h. On wheels.—The term “on wheels” means that the 37-mm gun is mounted on wheels or the 81-mm mortar is loaded on the mortar cart and that, except as otherwise indicated, the equipment and ammunition is loaded on carts.

i. Simulated loads.—When empty ammunition boxes are used for drill, the necessary additional weight should be added to them to simulate actual loads.

j. Breast straps.—When the route is over rough ground, one or more members of the 37-mm gun squad, 81-mm mortar squad, or ammunition squad, provided with breast straps for that purpose, may assist in drawing their respective gun or carts.

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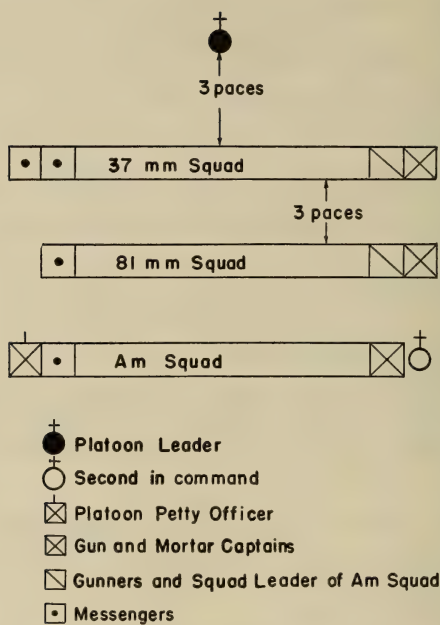


FIGURE 1.—Line, the special-weapons platoon.

OBJECTIVE OF GUN AND MORTAR DRILLS

k. Infantry drill.—Personnel should occasionally be formed and drilled as infantry, in which case the provisions of chapter 3 apply.

7-5. *OBJECTIVE OF GUN AND MORTAR DRILLS.*—*a.* Two objectives must be kept in mind as follows:

(1) *Accuracy and speed.*—Initially, accuracy is the most important consideration; when it has been secured emphasis is given to speed.

(2) *Discipline and team work.*—The duties of each member of the gun and mortar squads must be so thoroughly taught that their performance is executed instinctively, without being affected by the excitement of action. Individual members must merge their individual skill into smooth, rapid, and effective team work. Each man must be trained in the duties of the other members of his squad, in order that the rapidity and accuracy of fire will not be materially reduced by casualties.

b. Movements executed at attention.—To secure the above objectives, all movements are executed at attention unless otherwise ordered.

7-6. *TRANSPORTATION OF EQUIPMENT.*—*a.* The customary methods of transporting equipment for drill are on wheels and by hand.

b. When transported on wheels, spare parts and accessories are placed in the spare-parts chest and in the accessory chest on the ammunition cart of the 37-mm gun and on the mortar cart of the 81-mm mortar.

c. When transported by hand, spare parts and accessories are carried as directed by the gun or mortar captain.

d. Additional articles of equipment are transported as directed.

7-7. *THE MORTAR AND AMMUNITION CARTS.*—*a.* These carts may be utilized as follows:

(1) *Accompany the squad.*—The mortar cart is manned by Nos. 2 and 3; the ammunition carts, by Nos. 6 and 7.

(2) *Left at the munitions distributing point.*—In this case, the ammunition squad takes charge of the carts; movements are executed by hand, and Nos. 6 and 7 of the gun and mortar squad carry ammunition by hand to assist in maintaining the chain of supply.

b. The mortar cart is capable of carrying the mortar, spare-parts chest, accessory chest, and 8 rounds of light or practice ammunition, or 4 rounds of heavy ammunition. Grooves are cut in the ends of the

INTRODUCTION

cart body to secure the barrel assembly and bipod. The base plate is laid in the bottom of the cart.

c. The capacity of the ammunition cart is 12 boxes (192 rounds) of 37-mm gun ammunition; or 28 rounds of light or practice; or 16 rounds of heavy; or 14 rounds of light or practice and 8 rounds of heavy 81-mm mortar ammunition.

7-8. TO EQUIP FOR GUN, MORTAR, OR AMMUNITION DRILL.—*a.* Normally, equipment required is obtained before the squad is formed.

b. *The squad being in any formation, to get the equipment.*—(1) The command is: 1. ***On wheels (By hand)***, 2. ***EQUIP FOR GUN (MORTAR) DRILL.***

(2) Men fall out, get their assigned loads, and assemble in the original formation without command, except that the 37-mm gun squad cannot form in line, by hand.

SECTION II

DRILL, 37-MM GUN SQUAD

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7-9. *OBJECT AND SCOPE.*—The primary purpose of 37-mm gun drill is to teach each member of the gun squad to carry the gun and equipment, to execute simple movements, and to put the gun in action and out of action. For mechanics, marksmanship, and technique of fire, see OP 539, BFM, Volume III, Part 4.

7-10. *ORGANIZATION OF THE 37-MM GUN SQUAD.*—*The squad comprises—*

- 1 petty officer, second class.—Gun captain in command of the squad.
- 1 petty officer, third class.—Gunner.
- 7 nonrated men.—Each assigned a permanent number from 1 to 7, inclusive. No. 1 is the loader and assistant gunner; Nos. 2 to 7 inclusive are ammunition carriers.

7-11. *EQUIPMENT.*—*a. The following articles are required for the 37-mm gun drill:*

- 1 37-mm gun on wheels.
- 1 telescopic sight.
- 1 quadrant sight.
- 1 pair of field glasses.
- 1 compass.
- 1 set fire-control tables.
- 1 ammunition cart.

DRILL, 37-MM GUN SQUAD

16 boxes of ammunition; if live ammunition is not carried, one box will contain 4 dummy rounds.

2 aiming stakes.

6 carrying slings.

b. Additional articles include—

4 breast straps.

1 shovel, large.

4 sandbags.

7-12. TRANSPORTATION OF EQUIPMENT.—a. When the gun is drawn on wheels, equipment is transported as follows:

Gun captain.—Carries field glasses, compass, and fire-control tables.

Gunner.—Carries sights and aiming stakes.

Nos. 1 and 2.—Carry 2 boxes of ammunition each.

No. 3.—No load assigned, assists as directed.

Nos. 4 and 5.—Draw the 37-mm gun.

Nos. 6 and 7.—Draw the ammunition cart.

b. When the gun is carried by hand, equipment is transported as follows:

Gun captain.—Carries field glasses, compass, and fire-control tables.

Gunner.—Carries sights and aiming stakes.

Nos. 1 and 2.—Carry cradle and barrel, muzzle to the front, and 1 box of ammunition each.

No. 3.—Pushes axle and wheels.

Nos. 4 and 5.—Carry trails, pintle to the front, and 1 box of ammunition each.

Nos. 6 and 7.—Carry 2 boxes of ammunition each.

7-13. GENERAL RULES.—a. In executing the drill as prescribed in pars. 7-19 to 7-22, inclusive, reference should be made to par. 7-17 for mechanical operations and par. 7-18 for practices to be avoided.

b. While mounting and dismounting, only those numbers who are actively engaged in mounting or dismounting will be at the gun position. Those who have completed their mission immediately move clear of the gun and hold themselves in readiness for the next formation or movement. Those required to mount or dismount a part of the gun will be ready to execute their tasks immediately after the gun has been cleared by the preceding group.

c. Gun limbered.—On marches the gun may be limbered to its ammunition cart.

TO FORM THE GUN SQUAD

d. Carrying slings.—Men who carry ammunition boxes or an ammunition box and gun parts are equipped with carrying slings.

e. Grounding equipment, gun on wheels.—Equipment is grounded at the original assembly and at the command 1. **Ground**, 2. **EQUIPMENT**, as follows:

(1) *Gunner.*—Places the aiming stakes in his front, points to the right.

(2) *Nos. 1 and 2.*—Place the ammunition boxes in their front, rear of each box on a line with and touching their toes.

(3) *Nos. 4 and 5 and Nos. 6 and 7.*—Ground the trail of the gun and the drags of the ammunition cart, respectively, in their front.

(4) Other equipment is not grounded.

f. Grounding equipment, gun carried by hand.—Equipment is grounded at the original assembly and at the command 1. **Ground**, 2. **EQUIPMENT**, as follows:

(1) *Gunner.*—Places the aiming stakes in his front, points to the right.

(2) *Nos. 1 and 2.*—Place the ammunition boxes on their left and the barrel and cradle on their right.

(3) *Nos. 4 and 5.*—Place the ammunition boxes on their left and the trails on their right.

(4) *Nos. 6 and 7.*—Place the ammunition boxes in their front, rear of each box on a line with and touching their toes.

(5) Other equipment is not grounded.

g. Taking equipment.—Equipment carried by hand is taken, and drags are manned, at preparatory commands for movement.

7-14. **TO FORM THE GUN SQUAD.**—*a.* The gun captain (instructor) places himself 3 paces in front of where the center of the squad is to be and commands: **FALL IN.**

(1) *With equipment.*—Men fall in at the gun and ammunition cart as indicated in figure 2 (A), align themselves to the right, and ground the drags and equipment carried by hand. The gun captain then commands: **NUMBER OFF.** They number off in regular numerical order, gunner first.

(2) *Without equipment.*—Men fall in and align themselves as prescribed for a rifle squad. The gun captain then commands: **NUMBER OFF.** They number off from right to left as follows: **GUNNER, ONE, TWO, THREE, FOUR, FIVE, SIX, SEVEN.**

b. In numbering off, the squad executes **eyes right** and **front** as prescribed for **count off** in chapter 3.

DRILL, 37-MM GUN SQUAD

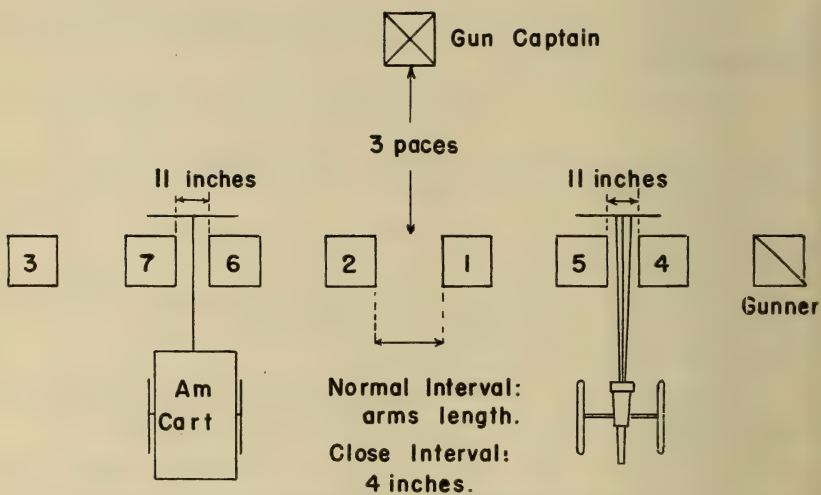


FIGURE 2 (A).—Line, the 37-mm gun squad.

TO FORM SQUAD COLUMN

c. The gun captain then inspects pistols and rifles as prescribed in chapter 2.

d. When the squad is part of a larger unit, the gun captain takes post as indicated in figure 1.

7-15. *TO FORM SQUAD COLUMN.*—*The squad being in line, gun on wheels, to form squad column.*—

(1) The command is: 1. **Squad column**, 2. **MARCH**.

(2) At the command **March**, members of the squad follow the gun captain at easy marching distance as indicated in figure 3 (A).

7-16. *TO ASSEMBLE.*—*a. The squad being in squad column, gun on wheels, to assemble.*—

(1) The command is: 1. **Assemble**, 2. **MARCH**.

(2) At the command **March**, if marching, the gun captain halts. Men move toward him and form in line as indicated in figure 2 (A).

b. The squad being in squad column, gun carried by hand, to assemble.—

(1) The command is: 1. **Assemble**, 2. **MARCH**.

(2) At the command **March**, if marching, the squad halts. The gun is assembled on wheels as described in par. 7-20. Members of the squad then move toward the gun captain and form in line as indicated in figure 2 (A).

NOTE.—The 37-mm gun squad cannot assemble or form in line when carrying gun and equipment by hand.

7-17. *MECHANICAL TRAINING FOR GUN DRILL.*—The following details of mechanical training are necessary for the execution of gun drill. For details beyond the scope of this section, refer to OP 539, BFM, Volume III, Part 4.

a. To unlock the trunnion bearings.—Press down on the trunnion-cap latches and turn the trunnion-cap wing nuts to the front.

b. To lock the trunnion bearings.—After placing the barrel and cradle on the trunnions, turn the trunnion-cap wing nuts to the rear.

c. To release the elevating screw (preparatory to removing the barrel and cradle).—Insert the cleaning-brush staff through the bore from the breech; grasp the cleaning-brush staff with the left hand; take up the weight of the breech with the cleaning-brush staff; grasp the elevating handwheel with the right hand; press in on the elevating-screw latch with the forefinger of the right hand; and separate

DRILL, 37-MM GUN SQUAD

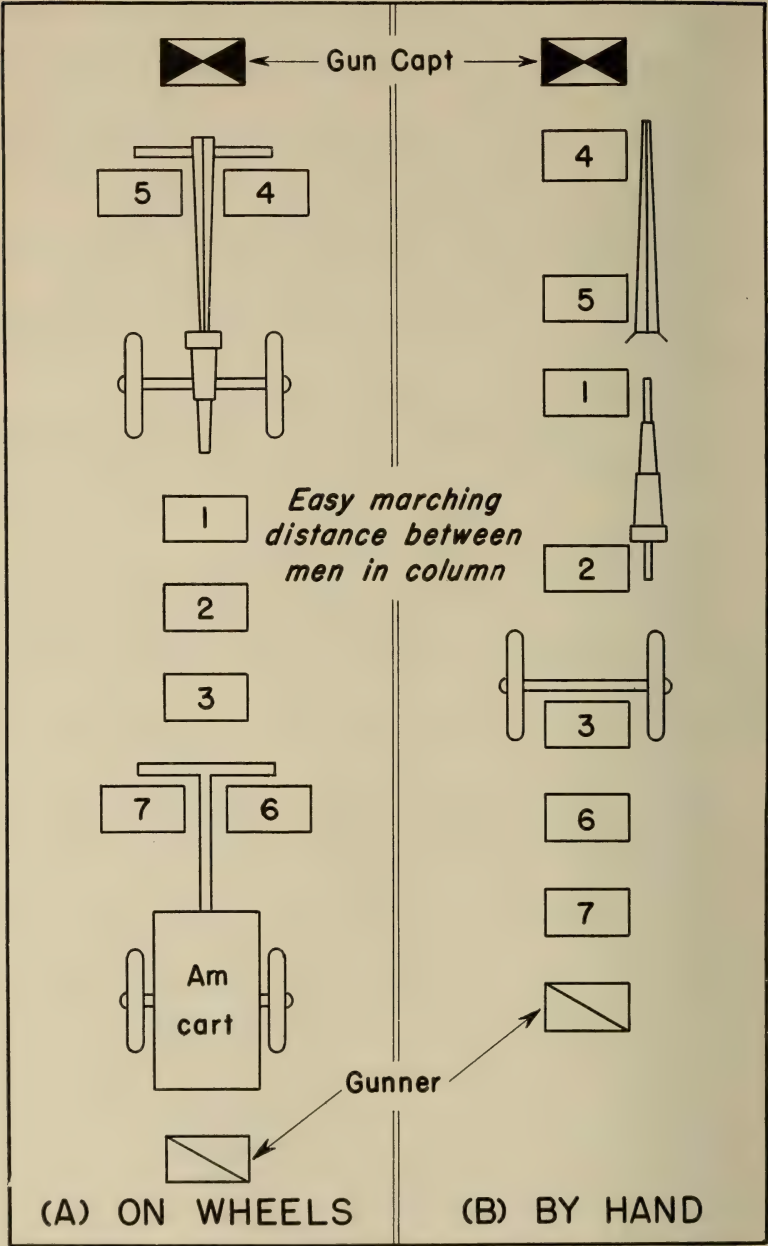


FIGURE 3.—Squad column, the 37-mm gun squad with equipment.

MECHANICAL TRAINING FOR GUN DRILL

the elevating screw from the elevating screw latch-catch bracket by pushing forward on the elevating handwheel.

d. To release the traversing-screw plunger.—Pull down on the traversing screw lock-ring.

e. To unlock the axle lock.—Draw the axle-coupling pin upward about 1 inch, pull the axle lock forward, and replace the axle-coupling pin behind the axle-lock stop.

f. To lock the axle lock.—Draw the axle-coupling pin upward about 1 inch, push the axle lock backward and replace the axle-coupling pin behind the axle-lock stop.

g. To open and adjust the trails.—Unstrap the trail strap, spread the trails, and adjust the trail brace by inserting the trail-brace tongue in the trail brace locking-plate on the right trail.

h. To close the trails.—Disengage the trail brace from the right trail, place it on the left trail, pull down on the traversing screw lock-ring, close the trails, and strap them together by means of the trail strap.

i. To adjust the front leg.—Straddle the pintle end of the trails and hold them between the knees, remove the front-leg pin from the front-leg shackle allowing the front leg to fall, and lock the front leg in position by inserting the front-leg pin in the upper opening in the bronze housing and through the front leg.

j. To secure the front leg in the front-leg shackle.—Straddle the pintle end of the trails and hold them between the knees, remove the front-leg pin from the bronze housing, fold back the front leg, and insert the front-leg pin in the front-leg shackle.

k. To place the trigger-crank lever in the carrying position.—Turn the trigger-crank lever up and forward until it locks in a vertical position.

l. To cock the gun.—Place the palm of the left hand against the cocking handle and push the striker forward quickly with the right hand until the head of the sear engages in the cocking notch of the striker. Cocking by hand is necessary only for the first round.

m. To uncock the gun.—Close the breech. Place the palm of the left hand against the cocking handle, press on the trigger-crank lever with the thumb of the right hand, and allow the striker to come back gently.

n. To open the breech.—Cock the gun; place the fingers of the left hand under the breechblock lever; give it a quick jerk upward and to the left, rotating the breechblock by moving the breechblock lever until it meets the shoulder which limits the movement of opening.

DRILL, 37-MM GUN SQUAD

o. To close the breech.—Place the fingers of the left hand upon the breechblock lever, move it to the right and down until it meets the shoulder which limits the movement of closing, and then allow the fingers to slide off the breechblock lever. The fingers must be kept on the breechblock lever until it comes in close contact with the shoulder in order to avoid any return movement of the breechblock and to insure that the breech is fully closed. The gun cannot be fired unless the breech is fully closed.

p. To load.—Open the breech. Insert a round into the chamber by grasping it by the base, placing it in the port of the breechblock and pushing it into the chamber with the fingers. Close the breech.

q. To unload.—Open the breech smartly. The opening of the breech causes the extraction and ejection of the cartridge case.

7-18. *PRACTICES TO BE AVOIDED IN THE USE AND OPERATION OF THE GUN.*—*a.* Snapping the precussion mechanism when the chamber is empty.

b. Pressing the trigger-crank lever, the breech not being completely closed.

c. Rotating or attempting to rotate the breechblock, the gun being uncocked.

d. Putting a strain on the shoulder guard, either in carrying the gun or by leaning on it while getting into or out of the gunner's position on the left trail.

e. Putting a strain on the elevating handwheel by allowing the rear end of the cradle to drop, or to rest on it when the elevating screw is unlatched from the elevating screw latch-catch bracket in removing the gun from the mount.

7-19. *TO DISMOUNT THE GUN.*—*The squad being in line or in squad column, gun on wheels, to dismount the gun.*—

(1) The command is: **BY HAND.**

(2) *Nos. 4 and 5.*—Turn the gun to the right about with the left wheel as a pivot, muzzle to the front, and ground the trail spades. No. 5 withdraws the cleaning-brush staff from the lunette swivels and hands it to No. 2.

(3) *Nos. 1 and 2.*—Place their ammunition boxes on the ground to the left of the trails. No. 2 cocks the gun, opens the breech, inserts the cleaning-brush staff through the bore, and releases the elevating screw. No. 1 unlocks the trunnion bearings, grasps his end of the cleaning-brush staff and, assisted by No. 2 at the breech end, lifts the barrel and cradle over the left wheel.

TO MOUNT THE GUN ON WHEELS

(4) *No. 4.*—Straddles the pintle end of the trails, unhooks the axle stays, and raises the trails slightly.

(5) *No. 3.*—Takes out the axle-coupling pin, removes the axle and wheels, and moves them 2 paces to the right so as to prevent interference with the forward movement of Nos. 4 and 5.

(6) As soon as the axles and wheels have been removed, members of the squad secure their loads. Nos. 1 and 2 each secure one ammunition box, Nos. 4 and 5 secure the other two. For uniformity in drill, Nos. 1 and 2 grasp the ends of the cleaning-brush staff with their right hand, arm extended; Nos. 4 and 5 carry the trails at the right hip, top of the trails against the body. In the field, to avoid undue fatigue, loads may be carried in the most convenient manner.

(7) *Nos. 6 and 7.*—Each procures 2 boxes of ammunition with carrying sling. If the squad is acting alone, they locate the ammunition cart as directed; otherwise, they ground the drags and leave the cart for disposal by the ammunition squad (see par. 7-45b).

(8) The squad then forms as indicated in figure 3 (B).

7-20. *TO MOUNT THE GUN ON WHEELS.*—*The squad being in squad column, gun carried by hand, to mount the gun on wheels.*—

(1) The command is: **ON WHEELS.**

(2) *Nos. 4 and 5.*—Ground ammunition boxes. No. 5 lowers the trail spades to the ground and, after receiving the cleaning-brush staff from No. 2, inserts it through the lunette swivels. No. 4 lowers and straddles the pintle end of the trails and, after No. 3 has brought up the axle and wheels, inserts the socket stud into the pintle-socket bearing and hooks the axle stays.

(3) *No. 3.*—Moves the axle and wheels to the pintle end of the trails, inserts the axle coupling pin into the socket stud, and locks the axle lock.

(4) *Nos. 1 and 2.*—Ground ammunition boxes and replace the barrel and cradle on the trunnion bearings. No. 1 locks the trunnion bearings and secures his own and No. 4's ammunition box. No. 2 secures the elevating screw, withdraws the cleaning-brush staff from the bore and passes it to No. 5, closes the breech, uncocks the gun, puts the trigger-crank lever in the carrying position, and secures his and No. 5's ammunition box.

(5) *Nos. 6 and 7.*—Procure the ammunition cart and put the ammunition and carrying slings in the cart.

(6) The squad then forms as indicated in figure 3 (A) or, if so directed, as indicated in figure 2 (A).

DRILL, 37-MM GUN SQUAD

7-21. *ACTION*.—*a. General*.—

(1) The 37-mm gun may go into action on wheels or on tripod. For a short, rapid change of position, the gun may be moved by the most expeditious means.

(2) Unless the gun captain otherwise directs, the gun will be put in action at its location when on wheels or at the location of the trails when carried by hand.

(3) *Deficiencies*.—Members of the squad report deficiencies to the gunner.

(4) *Gunner's report*.—As soon as the squad is posted, the gunner reports "Gun correct" (or reports deficiencies).

b. Positions at drill (see fig. 4).—The gun being in action, members of the squad are posted as follows:

(1) *Gun captain*.—2 paces to the left of and on line with muzzle of the gun.

(2) *Gunner*.—Lying on his left side, left hip resting on the left end of the trail brace, and left arm resting on the left trail.

(3) *No. 1*.—Lying on his right side, right hip resting on the right end of the trail brace, and right forearm resting on the right trail.

(4) *Nos. 2, 3, 4, and 5 (gun on wheels)*.—In line, from right to left, 5 paces in rear of the center of the interval between the trail spades.

(5) *Nos. 2, 4, and 5 (gun on tripod)*.—In line, from right to left, 5 paces in rear of the center of the interval between the trail spades.

(6) *No. 3 (gun on tripod)*.—8 paces in rear of the right spade. He places axle and wheels in front of him.

(7) *Nos. 6 and 7*.—At the ammunition car drags, 8 paces in rear of the left spade or, if the ammunition cart is elsewhere (see par. 7-47 *e*), to the left of No. 5.

c. Positions in combat.—Members of the squad place equipment and take the same relative positions (prone) as described in subpar. 6 above, utilizing available cover, so as not to interfere with the service of the piece, except that the gun captain takes position where he can observe and control the fire.

d. Gun captain.—After commanding: 1. ***On wheels (On tripod)***, 2. ***ACTION***, he indicates to the gunner the direction of fire and if necessary the gun position, supervises placing the gun in action, and takes his position.

e. The squad being in line or in squad column, gun on wheels, to form for action on wheels (see fig. 4).—

(1) The command is: 1. ***On wheels***, 2. ***ACTION***.

ACTION

(2) *Nos. 4 and 5.*—Turn the gun to the right about on the left wheel as a pivot, and ground the spades.

(3) *No. 4.*—In front of the gun, unlocks the axle lock, and takes his post.

(4) *No. 5.*—Withdraws the cleaning-brush staff from the lunette swivels, places it under the right side of the axle in a fore and aft position with the handle to the rear, opens and adjusts the trails, and takes his post.

(5) *No. 1.*—Places his ammunition boxes in rear of the trail brace, takes the shoulder guard and passes it to the gunner, releases the trigger-crank lever from the carrying position, takes his firing position, opens the breech, and inspects the bore.

(6) *Gunner.*—Places the aiming stakes under the trail brace with pointed ends to the left, attaches the shoulder guard and sight to the gun, takes his firing position, and tests the elevating and traversing mechanisms.

(7) *Nos. 2 and 3.*—Take their posts.

(8) *Nos. 6 and 7.*—Take their posts.

f. The squad being in line or in squad column, gun on wheels, to form for action on tripod.—

(1) The command is: 1. ***On tripod***, 2. ***ACTION***.

(2) *Nos. 4 and 5.*—Turn the gun to the right about on the left wheel as a pivot, and ground the spades.

(3) *No. 5.*—Withdraws the cleaning-brush staff from the lunette swivels and hands it to No. 2.

(4) *Nos. 1 and 2.*—Place their ammunition boxes to the left of the trails. No. 2 cocks the gun, opens the breech, inserts the cleaning-brush staff through the bore, and releases the elevating screw. No. 1 unlocks the trunnion bearings, grasps front end of the cleaning-brush staff and, assisted by No. 2 at the breech end, lifts the barrel and cradle over the left wheel.

(5) *No. 4.*—Straddles the pintle end of the trails, unhooks the axle stays, and raises the trails slightly.

(6) *No. 3.*—Takes out the axle-coupling pin, removes the axle and wheels, and moves them to his post.

(7) *Nos. 4 and 5.*—No. 4 adjusts the front leg; No. 5 opens and adjusts the trail brace; and they take their posts.

(8) *Nos. 1 and 2.*—Replace the barrel and cradle on the trunnion bearings. No. 1 locks the trunnion bearings, places his ammunition boxes in rear of the trail brace, takes the shoulder guard and hands it to the gunner, takes his firing position, and inspects the bore. No. 2

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secures the elevating screw, withdraws the cleaning-brush staff from the bore, places it under the right side of the gun in a fore and aft position with the handle to the rear, releases the trigger-crank lever, secures his ammunition boxes, and takes his post.

(9) *Gunner*.—Places the aiming stakes under the trail brace with pointed ends to the left, attaches the shoulder guard and sight to the gun, takes his firing position and tests the elevating and traversing mechanisms.

(10) *Nos. 6 and 7*.—Take their posts.

g. The squad being in squad column, gun carried by hand, to form for action on tripod.—

(1) The command is: 1. **On tripod**, 2. **ACTION**.

(2) *Nos. 4 and 5*.—Ground ammunition boxes to the left. No. 4 adjusts the front leg; No. 5 opens and adjusts the trails; and they take their posts.

(3) *Nos. 1 and 2*.—Ground ammunition boxes to the left and place the barrel and cradle on the trunnion bearings. No. 1 locks the trunnion bearings, places his own and No. 4's ammunition box in rear of the trail brace, takes the shoulder guard and hands it to the gunner, takes his firing position, and inspects the bore. No. 2 secures the elevating screw, withdraws the cleaning-brush staff from the bore, places it under the right side of the gun in a fore and aft position with the handle to the rear, releases the trigger-crank lever and, with his own and No. 5's ammunition box, takes his post.

(4) *Gunner*.—Places the aiming stakes under the trail brace with pointed ends to the left, attaches the shoulder guard and sight to the gun, takes his firing position, and tests the elevating and traversing mechanisms.

(5) *No. 3*.—Moves the axle and wheels to his post.

(6) *Nos. 6 and 7*.—Take their posts.

h. The squad being in squad column, gun carried by hand, to form for action on wheels.—

(1) The command is: 1. **On wheels**, 2. **ACTION**.

(2) *No. 3*.—Moves the axle and wheels to the pintle end of the trails, inserts the axle-coupling pin into the socket stud, and takes his post.

(3) *Nos. 4 and 5*.—Ground ammunition boxes to the left. No. 4 straddles the pintle end of the trails, inserts the socket stud in the pintle-socket bearing, and hooks the axle stays; No. 5 opens and adjusts the trails; and they take their posts.

ACTION

(4) *Nos. 1 and 2.*—Ground ammunition boxes to the left and place the barrel and cradle on the trunnion bearings. No. 1 locks the trunnion bearings, places his own and No. 4's ammunition box in rear of trail brace, takes the shoulder guard and hands it to the gunner,

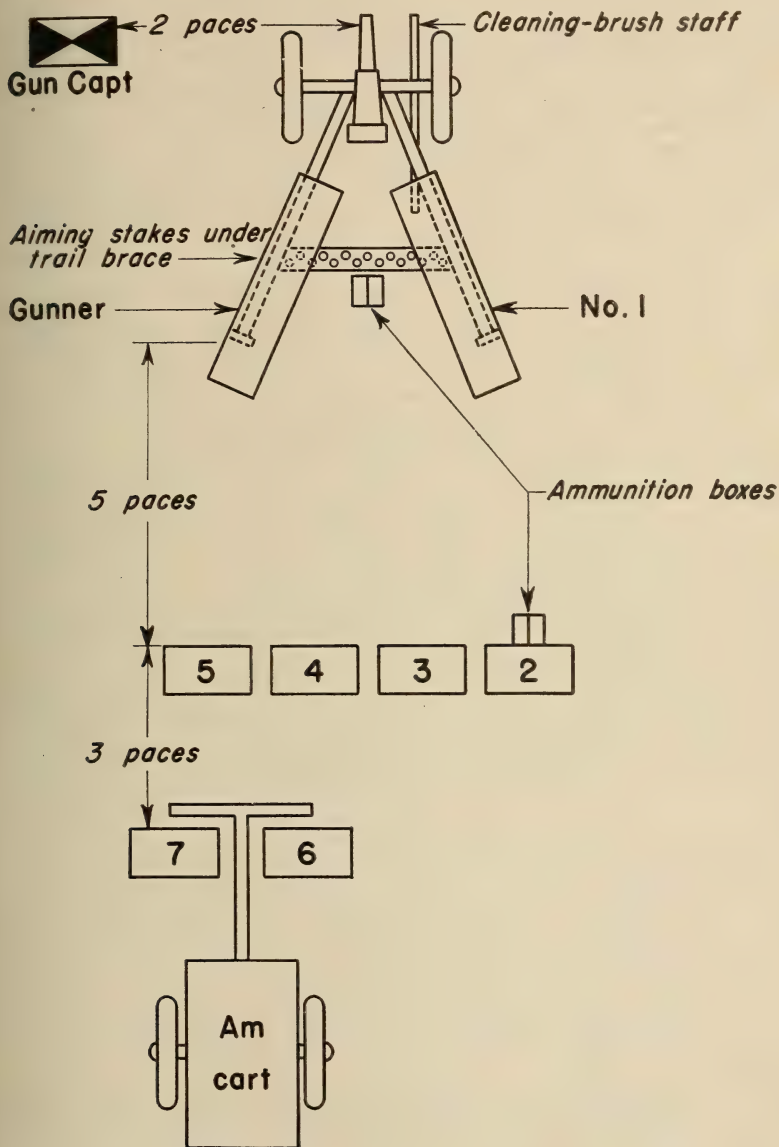


FIGURE 4.—Action on wheels, the 37-mm gun.

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takes his firing position, and inspects the bore. No. 2 secures the elevating screw, withdraws the cleaning-brush staff from the bore, places it under the right side of the gun in a fore and aft position with the handle to the rear, releases the trigger-crank lever and, with his own and No. 5's ammunition box, takes his post.

(5) *Gunner*.—Places the aiming stakes under the trail brace with pointed ends to the left, attaches the shoulder guard and sight to the gun, takes his firing position, and tests the elevating and traversing mechanisms.

(6) *Nos. 6 and 7*.—Take their posts.

7-22. *OUT OF ACTION*.—*a. The gun being on wheels, to go out of action, gun on wheels.*—

(1) The command is: **OUT OF ACTION**.

(2) *Gunner*.—Removes the shoulder guard, passes it to No. 1, removes the sight, puts it in its case, and recovers the aiming stakes.

(3) *No. 1*.—Replaces the shoulder guard on the right trail, closes the breech, uncocks the gun, puts the trigger-crank lever in the carrying position, and picks up his 2 ammunition boxes.

(4) *No. 4*.—Locks the axle lock and releases the traversing-screw plunger.

(5) *No. 5*.—Closes the trails and passes the cleaning-brush staff through the lunette swivels.

(6) *No. 2*.—Picks up his 2 ammunition boxes.

(7) The squad then forms as indicated in figure 3 (A) or, if so directed, as indicated in figure 2 (A).

b. The gun being on tripod, to go out of action, gun on wheels.—

(1) The command is: 1. **On wheels**, 2. **OUT OF ACTION**.

(2) *Gunner*.—Removes the shoulder guard, passes it to No. 1, removes the sight, puts it in its case, and recovers the aiming stakes.

(3) *Nos. 1 and 2*.—No. 2 moves to the gun, places his ammunition boxes to the left of the trails, opens the breech (if closed), inserts the cleaning-brush staff through the bore, and releases the elevating screw. No. 1 replaces the shoulder guard on the right trail, moves the ammunition boxes to the left of the trails, moves to the front of the gun, unlocks the trunnion bearings, grasps front end of the cleaning-brush staff and, assisted by No. 2 at the breech end, holds the barrel and cradle suspended to the left until the axle and wheels are in place.

(4) *No. 4*.—Releases the traversing-screw plunger, secures the front leg in its shackle and, after No. 3 has brought up the axle and wheels,

OUT OF ACTION

inserts the socket stud in the pintle-socket bearing and hooks the axle stays.

(5) *No. 5.*—Closes the trails and, after receiving the cleaning-brush staff from No. 2, inserts it through the lunette swivels.

(6) *No. 3.*—Moves the axle and wheels to the pintle end of the trails, inserts the axle-coupling pin into the socket stud, and locks the axle lock.

(7) *Nos. 1 and 2.*—Replace the barrel and cradle on the trunnion bearings. No. 1 locks the trunnion bearings and picks up his 2 ammunition boxes. No. 2 secures the elevating screw, withdraws the cleaning-brush staff from the bore and passes it to No. 5, closes the breech, uncocks the gun, puts the trigger-crank lever in the carrying position, and picks up his 2 ammunition boxes.

(8) The squad then forms as indicated in figure 3 (A) or, if so directed, as indicated in figure 2 (A).

c. The gun being on tripod, to go out of action, gun carried by hand.—

(1) The command is: 1. **By hand**, 2. **OUT OF ACTION**.

(2) *Gunner.*—Removes the shoulder guard, passes it to No. 1, removes the sight, puts it in its case, and recovers the aiming stakes.

(3) *Nos. 1 and 2.*—No. 2 moves to the gun, places his ammunition boxes to the left of the trails, opens the breech (if closed), places the trigger-crank lever in carrying position, inserts the cleaning-brush staff through the bore, and releases the elevating screw. No. 1 replaces the shoulder guard on the right trail, moves the ammunition boxes to the left of the trails, moves to the front of the gun, unlocks the trunnion bearings, grasps front end of the cleaning-brush staff and assisted by No. 2 at the breech end, removes the barrel and cradle to the left, and, retaining their hold on the staff, each picks up an ammunition box.

(4) *Nos. 4 and 5.*—No. 4 releases the traversing-screw plunger and secures the front leg in its shackle; No. 5 closes the trails; and, retaining their hold on the trails, each picks up an ammunition box.

(5) The squad then forms as indicated in figure 3 (B).

d. The gun being on wheels, to go out of action, gun carried by hand.—

(1) The command is: 1. **By hand**, 2. **OUT OF ACTION**.

(2) *Gunner.*—Removes the shoulder guard, passes it to No. 1, removes the sight, puts it in its case, and recovers the aiming stakes.

(3) *Nos. 1 and 2.*—No. 2 moves to the gun, places his ammunition boxes to the left of the trails, opens the breech (if closed), places

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the trigger-crank lever in the carrying position, inserts the cleaning-brush staff through the bore, and releases the elevating screw. No. 1 replaces the shoulder guard on the right trail, moves the ammunition boxes to the left of the trails, moves to the front of the gun, unlocks the trunnion bearings, grasps front end of the cleaning-brush staff; and, assisted by No. 2 at the breech end, lifts the barrel and cradle over the left wheel and, retaining their hold on the staff, each picks up an ammunition box.

(4) *No. 4.*—Straddles the trails, releases the traversing-screw plunger, unhooks the axle stays, raises the trails slightly and, after the trails are closed, picks up an ammunition box.

(5) *No. 3.*—Takes out the axle-coupling pin, removes the axle and wheels, and moves them 2 paces to the right to prevent interference with the forward movement of Nos. 4 and 5.

(6) *No. 5.*—Closes the trails and picks up an ammunition box.

(7) The squad then forms as indicated in figure 3 (B).

SECTION III

DRILL, 81-MM MORTAR SQUAD

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7-23. *OBJECT AND SCOPE.*—The primary purpose of 81-mm mortar drill is to teach each member of the mortar squad to carry the mortar and equipment, to execute simple movements, and to put the mortar in action and out of action. For mechanics, marksmanship, and technique of fire, see OP 737, BFM, Volume III, Part 4A.

7-24. *ORGANIZATION OF THE 81-MM MORTAR SQUAD.*—*The squad comprises—*

1 petty officer, second class.—Mortar captain, in command of the squad.

1 petty officer, third class.—Gunner, sets the sights and lays the mortar.

7 nonrated men.—Each assigned a permanent number from 1 to 7 inclusive, as follows:

No. 1.—Assistant gunner, assists the gunner in laying the mortar.

No. 2.—Loader.

No. 3.—Fuze setter and responsible for the removal of the proper number of increments from the shell.

Nos. 4, 5, 6, and 7.—Ammunition carriers.

NOTE.—The organization of the 81-mm mortar squad may be modified by combining the duties of the gunner and No. 1 (assistant gunner) as prescribed in OP 737, BFM, Vol. III, Part 4A; however, this is not desirable except on level terrain as otherwise two men are required for rapid service to level and cross-level the mortar.

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7-25. *EQUIPMENT.*—*a. The following articles are required for 81-mm mortar drill:*

- 1 mortar consisting of bipod, base plate, and barrel assembly (tube, base cap, and firing pin).
- 1 sight.
- 1 sponge staff and sponge with cover.
- 1 spare parts chest.
- 1 accessory chest.
- 1 set fire-control tables.
- 1 pair of field glasses.
- 1 compass.
- 4 ammunition carrying harness.
- 2 aiming stakes.
- 4 sandbags.
- 1 mortar cart.
- 1 ammunition cart.
- 44 rounds of light or practice ammunition; or 28 rounds of heavy; or 12 rounds of heavy and 24 rounds of light or practice; or, if live ammunition is not carried, 8 dummy rounds.

b. Additional articles include:

- 4 breast straps.
- 1 shovel.

7-26. *TRANSPORTATION OF EQUIPMENT.*—*a. When the mortar is carried on the cart, equipment is transported as follows:*

Mortar captain.—Carries field glasses, compass, and fire-control tables.

Gunner.—Carries sight, sponge and sponge staff, and aiming stakes.

No. 1.—No load assigned, assists as directed.

Nos. 2 and 3.—Draw the 81-mm mortar cart.

Nos. 4 and 5.—Carry 4 rounds of ammunition each.

Nos. 6 and 7.—Draw the ammunition cart.

b. When the mortar is carried by hand, equipment is transported as follows:

Mortar captain.—Carries field glasses, compass, and fire-control tables.

Gunner.—Carries sight, sponge and sponge staff, and aiming stakes.

No. 1.—Carries the bipod.

No. 2.—Carries the base plate.

GENERAL RULES

No. 3.—Carries the barrel assembly.

Nos. 4, 5, 6, and 7.—Carry 4 rounds of ammunition each.

7-27. *GENERAL RULES.*—*a. Grounding equipment, mortar on wheels.*—Equipment is grounded at the original assembly and at the command 1. **Ground, 2. EQUIPMENT**, as follows:

(1) *Gunner.*—Places the sponge staff and aiming stakes in front of him, handle of the staff and points of the stakes to the right.

(2) *Nos. 4 and 5.*—Unsling the loaded ammunition carrying harness and place them in their front.

(3) *Nos. 2 and 3.*—Ground the drags of the mortar cart.

(4) *Nos. 6 and 7.*—Ground the drags of the ammunition cart.

(5) Other equipment is not grounded.

b. Grounding equipment, mortar carried by hand.—Equipment is grounded at the original assembly and at the command 1. **Ground, 2. EQUIPMENT**, as follows:

(1) *Gunner.*—Places the sponge staff and aiming stakes in front of him, handle of the staff and points of the stakes to the right.

(2) *No. 1.*—Places the bipod in his front, legs to the right, collar up.

(3) *No. 2.*—Places the base plate in front of him in position for action.

(4) *No. 3.*—Places the barrel assembly in his front, base cap to the right, quadrant seat up.

(5) *Nos. 4, 5, 6, and 7.*—Unsling the loaded ammunition carrying harness and place them in their front.

(6) Other equipment is not grounded.

c. Taking equipment.—Equipment carried by hand is taken, and drags are manned, at preparatory commands for movement.

d. Carts limbered.—On marches the ammunition cart may be limbered to the mortar cart.

7-28. *TO FORM THE MORTAR SQUAD.*—*a.* The mortar captain (instructor) places himself 3 paces in front of where the center of the squad is to be and commands: **FALL IN**.

(1) *With equipment on wheels.*—Men fall in at the mortar and ammunition carts as indicated in figure 5 (A), align themselves to the right, and ground the drags and equipment carried by hand. The mortar captain then commands: **NUMBER OFF**. They number off in regular numerical order, gunner first.

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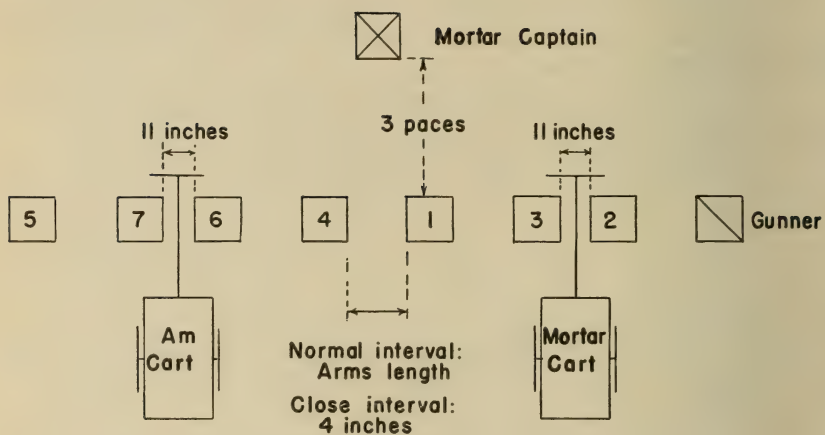


FIGURE 5 (A).—Line, the 81-mm mortar squad.

TO FORM SQUAD COLUMN

(2) *Without equipment, or with equipment by hand.*—Men fall in and align themselves as prescribed for a rifle squad and ground equipment. The mortar captain then commands: **NUMBER OFF**. They number off from right to left as follows: **GUNNER, ONE, TWO, THREE, FOUR, FIVE, SIX, SEVEN**.

b. In numbering off, the squad executes **eyes right** and **front** as prescribed for **count off** in chapter 3.

c. The mortar captain then inspects pistols and rifles as prescribed in chapter 2.

d. When the squad is part of a larger unit, the mortar captain takes post as indicated in figure 1.

7-29. TO FORM SQUAD COLUMN.—*The squad being in line, mortar on wheels or carried by hand, to form squad column.*—

(1) The command is: 1. **Squad column**, 2. **MARCH**.

(2) At the command **March**, members of the squad follow the mortar captain at easy marching distance as indicated in figure 6 (A) when on wheels, or figure 6 (B) when by hand.

7-30. TO ASSEMBLE.—*The squad being in squad column, mortar on wheels or carried by hand, to assemble.*—

(1) The command is: 1. **Assemble**, 2. **MARCH**.

(2) At the command **March**, if marching, the mortar captain halts. Men move toward him and form in line as indicated in figure 5 (A) when on wheels, or as prescribed for a rifle squad when by hand.

7-31. TO REMOVE THE MORTAR AND EQUIPMENT FROM CARTS.—*The squad being in any formation, mortar on wheels, to remove the mortar and equipment from the carts.*—

(1) The command is: **BY HAND**.

(2) *No. 1.*—Removes the bipod.

(3) *Nos. 2 and 3.*—Remove the base plate and barrel assembly, respectively; and, if the squad is acting alone, locate the mortar cart as directed by the mortar captain; otherwise, they ground the drags and leave the cart in place for the ammunition squad (see par. 7-45 *b*).

(4) *Nos. 6 and 7.*—Each places 4 rounds of ammunition in his carrying harness. If the squad is acting alone, they locate the ammunition cart as directed by the mortar captain; otherwise, they ground the drags and leave the cart in place for the ammunition squad (see par. 7-45 *b*).

(5) The squad then forms as indicated in figure 6 (B), or as directed.

DRILL, 81-MM MORTAR SQUAD

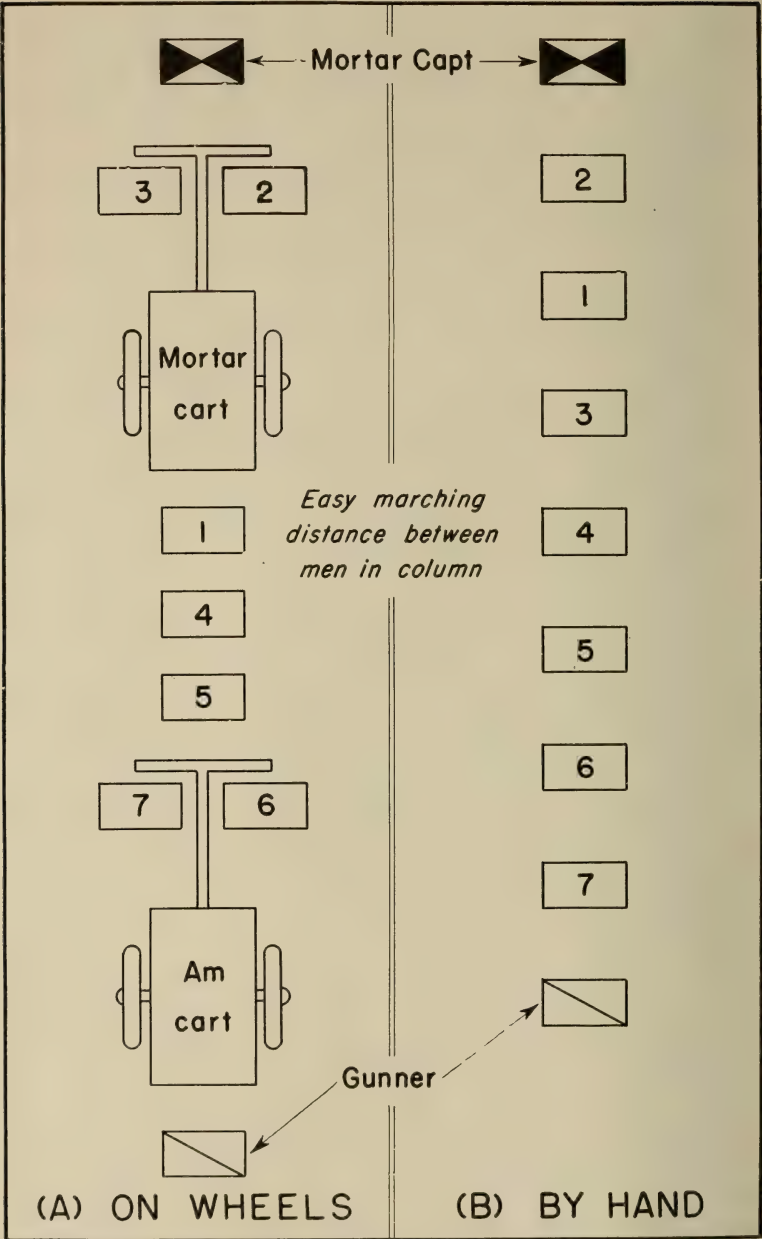


FIGURE 6.—Squad column, the 81-mm mortar squad with equipment.

TO REPLACE THE MORTAR AND EQUIPMENT ON CARTS

7-32. *TO REPLACE THE MORTAR AND EQUIPMENT ON CARTS.*—*The squad being in any formation, mortar carried by hand, to replace the mortar and equipment on carts.*—

(1) The command is: **ON WHEELS.**

(2) *Nos. 2 and 3.*—Procure the mortar cart and put the base plate and barrel assembly in the cart.

(3) *No. 1.*—Puts the bipod in the cart.

(4) *Nos. 6 and 7.*—Procure the ammunition cart, remove the ammunition from their carrying harness and put it in the ammunition cart.

(5) The squad then forms as indicated in figure 6 (A) or, if so directed, as indicated in figure 5 (A).

7-33. *STRIPPING AND ASSEMBLING.*—*a.* The only part of the mortar which may be stripped in the field is the firing pin, and than only when necessary to clean or replace it.

b. To strip the firing pin.—Unscrew the firing pin from the base cap. If the inner edge of the recess in the spherical end of the base cap has been nicked or flattened, smooth the edge with the firing pin-vent cleaning tool.

c. To assemble the firing pin.—Screw the firing pin tightly into position, after oiling the threads.

7-34. *THE 81-MM MORTAR EMPLACEMENT.*—*a.* Normally, the mortar is located in a defiladed position.

b. The mortar is always mounted on the base plate for firing. When high explosive shells (heavy) and high explosive shells (light), charge 6, are used, the short axis of the base plate must be set at an angle of approximately 30 degrees from the horizontal, and the ground prepared if necessary for this purpose.

c. The long axis of the base plate is aligned perpendicular to the direction of fire.

d. The base plate is anchored by the recoil of the first 2 or 3 rounds fired. Two sandbags, partly filled, may be placed one on each side of the socket on the upper surface of the base plate.

7-35. *ACTION.*—*The squad being in any formation, to form for action (see fig. 7).*—

a. If the mortar is put in action from on wheels, Nos. 2 and 3 and Nos. 6 and 7 ground their drags on the command **Action.**

b. Mortar captain.—(1) Commands: **ACTION.**

(2) Indicates the mortar position and direction of fire.

(3) Supervises mounting the mortar.

DRILL, 81-MM MORTAR SQUAD

(4) Takes position 3 paces in rear of the base plate (for position in combat see subpar. *j.* below).

(5) Issues the fire order (see OP 734).

c. No. 2.—(1) Procures the base plate (if on wheels).

(2) Prepares the mortar emplacement as directed.

(3) When required, assists in mounting the mortar.

(4) Takes loading position, standing or kneeling, at the right of the mortar, near and facing the muzzle (never forward of it).

(5) *To load.*—Receives the prepared shell with both hands from No. 3; right hand, palm up, grasping the fuze so as to cover end of the safety fork; left hand, palm down, grasping shell near the base; quickly checks the charge and fuze setting; and holds the shell so No. 3 can withdraw the safety pin. At the command, (***So many rounds***), retaining his grasp on the shell, he inserts it, fuze end up, part way into the muzzle, and looks toward the mortar captain, thus signifying “ready.” At the command ***Fire***, he releases the shell and ducks to the rear. He swabs the tube with the sponge staff every five rounds, except that fire for effect must not be interrupted for this purpose.

d. No. 1.—(1) Procures the bipod (if on wheels), and sees that the traversing nut is centered on the traversing screw, that the elevating screw is half exposed, and that threads are clear.

(2) Takes position in front of and facing the base plate, and places the feet of the bipod in front of it so that its legs are inclined to the rear, mortar clamp to the rear; and the saddle, the socket of the base plate, and the direction of fire in alignment.

(3) Holds the gear case with his left hand; unrolls the chain, adjusts for the spread of the legs (about 1 yard); hooks free end to the left leg; opens the legs about 1 yard; loosens the locking nut; moves the sliding bracket so that the guide tube bisects the angle between the legs, then tightens the locking nut.

(4) Supports the bipod against his legs; places the fingers of both hands under the mortar clamp and lifts up and unlocks the saddle.

(5) Holds the gear case with his left hand; takes position in rear of the left leg and, with his right hand under the saddle, opens the clamp.

(6) After the mortar is clamped in position, takes kneeling position, at the left of the mortar where he can see the cross-level bubble and can handle the cross-level gear.

ACTION

(7) Assists the gunner in laying the mortar by keeping it cross-leveled, using the sight cross-level, and by moving the bipod as directed. After No. 4 has set the aiming stakes, he presses the feet of the bipod into the ground, and again assists in relaying the mortar.

e. No. 3.—(1) Procures the barrel assembly (if on wheels); removes the muzzle cover; sees that the tube is clear; that the base cap is firmly screwed on; and that the firing pin is properly seated.

(2) Inserts the base cap into the center indentation of the socket and rotates the barrel assembly until the quadrant seat (flattened surface near the muzzle) is up and the barrel assembly and base plate are locked.

(3) Grasps the rim of the muzzle with his left hand; unscrews the clamp bolt and opens the mortar clamp.

(4) Places the tube in the saddle and clamps it firmly into position so that the upper edge of the clamp is about one-third the length of the tube from the muzzle.

(5) Takes position to the right rear of the mortar to pass shells to No. 2.

(6) During firing, receives shell from No. 4; removes the proper number of increments from the charge; sets the fuze and calls out, "Charge (so and so), fuze quick (delay)"; makes rapid inspection to insure readiness of the shell for firing; passes the shell to No. 2; and withdraws the safety pin at command, **(So many) rounds.**

f. Gunner.—(1) Places aiming stakes to the right of the base plate and rests the sponge staff on the connecting rod between the guide tube and the left leg of the bipod.

(2) Takes the sight from its case; and unless otherwise ordered sets Elevation 52, Scale 3200, Drum 100 (see OP 734); and places the sight in the sight bracket.

(3) Takes kneeling position, at the left of the mortar in rear of the sight, where he can set the sights and lay the mortar.

(4) Assisted by No. 1, he levels and cross-levels the mortar, using the sight cross-level; indicates to No. 4 the proper alignment and position of each aiming stake, thus establishing the base line; after the bipod feet have been pressed into the ground, he releveles and relays the mortar assisted by No. 1, by means of the elevating and traversing gears; sights in on a distant aiming point, if available; records the deflection and again lines in on the aiming stakes (see OP 734).

(5) When all are posted and ready he reports, "Mortar correct" (or reports deficiencies).

DRILL, 81-MM MORTAR SQUAD

g. No. 4.—(1) Removes ammunition from his carrying harness and piles it approximately 8 paces in rear and slightly to the right of the mortar.

(2) Goes forward with the aiming stakes and drives them as directed by the gunner (see subpar. *f* (4) above), then takes post at the ammunition pile.

h. No. 5.—(1) Removes ammunition from his carrying harness and piles it approximately 8 paces in rear and slightly to the right of the mortar.

(2) Opens 6 containers of each type of shell carried unless otherwise directed.

(3) During firing Nos. 4 and 5 inspect shells for type (light, heavy, practice, or dummy); see that they are in good condition; and pass them to No. 3.

i. Nos. 6 and 7.—(1) Take post 2 paces in rear of the ammunition pile, in readiness to replenish it.

(2) Fill and place sandbags as directed.

(3) If the squad is acting alone, they locate the ammunition cart and mortar cart as indicated in figure 7, or as may be directed; otherwise, they ground the drags, fill their carrying harness with ammunition and leave the carts for disposal by the ammunition squad (see par. 7-47*e*).

j. Positions in combat.—Members of the squad place equipment and take the same relative positions (prone) as described above, utilizing available cover, so as not to interfere with the service of the piece, except that the mortar captain takes position where he can observe and control the fire.

k. Deficiencies.—Members of the squad report deficiencies to the gunner.

7-36. *OUT OF ACTION.*—*a. To go out of action, mortar on wheels.*—

(1) The command is: 1. **On wheels**, 2. **OUT OF ACTION**.

(2) *Gunner.*—Removes the sight, puts it in its case, picks up the sponge staff and recovers the aiming stakes.

(3) *No. 1.*—Centers the traverse and lowers the elevating screw until it is half exposed.

(4) *No. 2.*—Swabs the barrel.

(5) *Nos. 1, 2, and 3.*—Dismount the mortar, inspect the parts, and load them on the mortar cart.

(6) *Nos. 4 and 5.*—Return shells to their containers, retape containers, and fill and sling their carrying harness.

ACTION

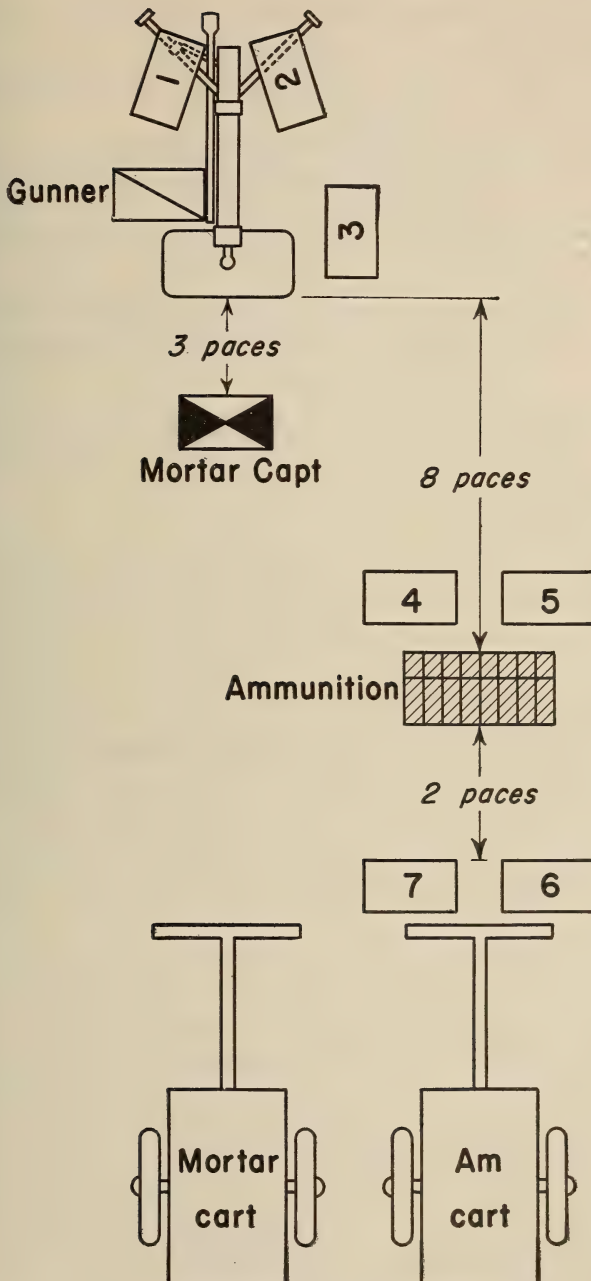


FIGURE 7.—Action, the 81-mm mortar.

DRILL, 81-MM MORTAR SQUAD

(7) *Nos. 6 and 7.*—Replace shells left by Nos. 4 and 5 in ammunition cart, and empty and recover the sandbags.

(8) The squad then forms as indicated in figure 6 (A) or, if so directed, as indicated in figure 5 (A).

b. To go out of action, mortar carried by hand.—

(1) The command is: 1. **By hand**, 2. **OUT OF ACTION**.

(2) Executed as described above except that—

(a) *Nos. 1, 2, and 3.*—Carry prescribed loads (see par. 7-26 b).

(b) *Nos. 6 and 7.*—Fill and sling their carrying harness.

(c) The squad then forms as indicated in figure 6 (B) or as directed.

SECTION IV

DRILL, AMMUNITION SQUAD

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To replace ammunition on carts.....	7-46	39
Action.....	7-47	42
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7-37. *OBJECT AND SCOPE.*—*a.* The purpose of ammunition drill is to teach methods of establishing and operating the platoon munitions distributing point and in maintaining the chain of ammunition supply.

b. The maintenance of the chain of supply may involve transportation of ammunition from the battalion munitions distributing point to the platoon munitions distributing point; from the platoon munitions distributing point to the 81-mm mortar; and in the relocation of munitions distributing points.

c. Under certain conditions it may be necessary to transport ammunition from the platoon munitions distributing point to the 37-mm gun.

7-38. *ORGANIZATION OF THE AMMUNITION SQUAD.*—*The squad comprises—*

1 petty officer, third class.—In charge of the squad.

8 nonrated men.—Ammunition carriers, each assigned a permanent number from 1 to 8, inclusive.

7-39. *EQUIPMENT.*—*a.* *The following articles are required for ammunition drill:*

2 ammunition carts.

6 boxes of 37-mm ammunition.

42 rounds of 81-mm light or practice ammunition; or 24 rounds of heavy; or 21 rounds of light or practice and 12 rounds of

DRILL, AMMUNITION SQUAD

heavy. If live ammunition is not carried, the weight of the load should be simulated.

2 carrying slings for 37-mm ammunition.

8 carrying harness for 81-mm ammunition.

b. Additional articles include—

4 breast straps.

7-40. *TRANSPORTATION OF EQUIPMENT.*—*a.* For the capacity of the ammunition cart, see par. 7-7 *c.*

b. One load is 2 boxes of 37-mm ammunition with carrying sling, or 4 rounds of 81-mm ammunition with carrying harness.

7-41. *GENERAL RULES.*—*a. Grounding equipment.*—Equipment is grounded at the original assembly and at the command

1. **Ground**, 2. **EQUIPMENT**, as follows:

(1) Drags of the ammunition carts are grounded by Nos. 1 and 2 and by Nos. 5 and 6, respectively.

(2) Men carrying 37-mm ammunition boxes place them in front of and touching their toes.

(3) Men carrying 81-mm ammunition place the loaded carrying harness in their front.

b. Taking equipment.—Equipment carried by hand is taken, and drags are manned, at preparatory commands for movement.

c. Carts limbered.—On marches the ammunition carts may be limbered.

7-42. *TO FORM THE AMMUNITION SQUAD.*—*a.* The squad leader (instructor) places himself 3 paces in front of where the center of the squad is to be and commands: **FALL IN.**

(1) *With equipment on wheels.*—Men fall in at the ammunition carts as indicated in figure 8 (A), align themselves to the right, and ground the drags.

(2) *Without equipment, or with equipment by hand.*—Men fall in and align themselves as prescribed for a rifle squad, and ground equipment.

b. The squad leader then commands: **NUMBER OFF.** All except the right file execute **eyes right** and, beginning on the right, they number off from right to left as follows: **ONE, TWO, THREE, FOUR, FIVE, SIX, SEVEN, EIGHT.** Each man turns his head and eyes to the front as he numbers off.

c. The squad leader then inspects pistols and rifles as prescribed in chapter 2.

TO FORM SQUAD COLUMN

d. When the squad is part of a larger unit, the squad leader takes post as indicated in figure 1.

7-43. *TO FORM SQUAD COLUMN.*—*The squad being in line, ammunition on wheels or carried by hand, to form squad column.*—

(1) The command is: 1, **Squad column**, 2. **MARCH**.

(2) At the command **March**, members of the squad follow the squad leader at easy marching distance as indicated in figure 9 (A) when on wheels, or figure 9 (B) when by hand.

7-44. *TO ASSEMBLE.*—*The squad being in squad column, ammunition on wheels or carried by hand, to assemble.*—

(1) The command is: 1. **Assemble**, 2. **MARCH**.

(2) At the command **March**, if marching, the squad leader halts. Men move toward him and form in line as indicated in figure 8 (A) when on wheels or paragraph 7-42a (2) when by hand.

7-45. *TO REMOVE AMMUNITION FROM CARTS.*—*a. The squad being in any formation, with carts, to remove the ammunition from carts.*—

(1) The command is: **BY HAND**.

(2) *Nos. 1 and 2 and Nos. 5 and 6.*—Ground the drags of their respective ammunition carts.

(3) *Nos. 1 to 8, inclusive.*—Fill carrying harness with four rounds each of 81-mm ammunition or secure 2 boxes of 37-mm ammunition with carrying sling as directed.

b. After removing ammunition from the carts, the squad leader designates a member or members of the squad to procure the 37-mm ammunition cart and the 81-mm mortar cart and ammunition cart.

c. If an advance is to be made without carts, the squad leader designates, as necessary, a member or members of the squad to remain with the carts, and forms the remainder in squad column as indicated in figure 9 (B), or in line as indicated in paragraph 7-42a (2).

7-46. *TO REPLACE AMMUNITION ON CARTS.*—*a. The squad being in any formation, ammunition carried by hand, to replace the ammunition on carts.*—

(1) The command is: **ON WHEELS**.

(2) *Nos. 1 and 2 and Nos. 5 and 6.*—Procure their respective ammunition carts.

(3) *Nos. 1 to 8, inclusive.*—Remove ammunition from carrying harness and replace ammunition, carrying harness, and carrying slings on the carts.

DRILL, AMMUNITION SQUAD

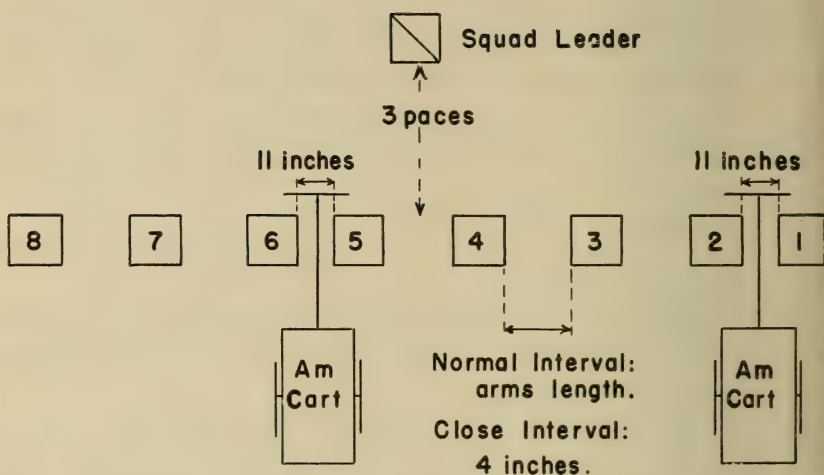


FIGURE 8 (A).—Line, the ammunition squad.

TO FORM SQUAD COLUMN

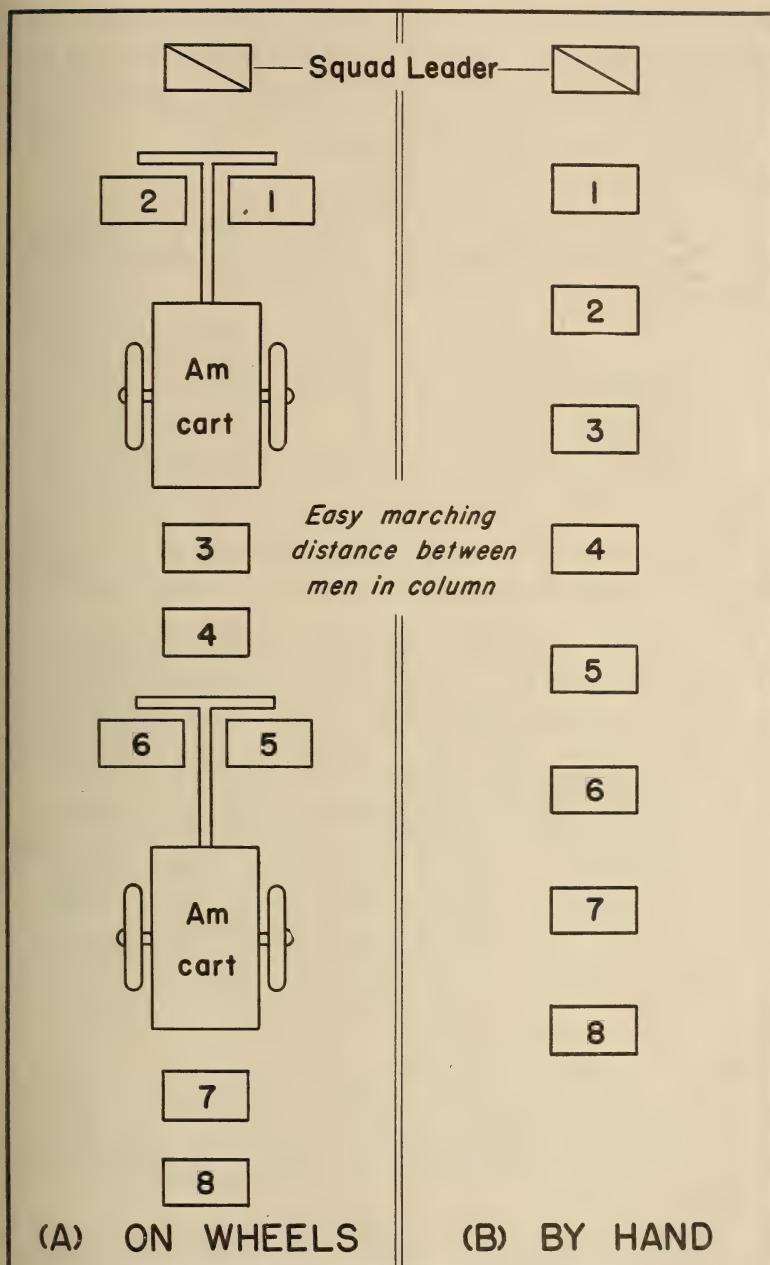


FIGURE 9.—Squad column, the ammunition squad with equipment.

DRILL, AMMUNITION SQUAD

b. After replacing ammunition on the carts, the squad leader designates a member or members of the squad to return the 37-mm ammunition cart and the 81-mm mortar cart and ammunition cart to their respective squads as required.

c. The squad then forms as indicated in Fig. 9 (A) or, if so directed, as indicated in Fig. 8 (A).

7-47. *ACTION* (see fig. 10).—*The squad being in any formation, ammunition on carts or transported by hand, to establish the platoon munitions distributing point.*—

a. *Squad leader.*—Commands: **ACTION**, designates the location of the platoon munitions distributing point, the disposition to be made of the ammunition, and takes post where he can supervise the ammunition supply.

b. *Disposition of ammunition.*—Whether the ammunition remains on carts, in carrying harness, or is piled on the ground, depends on its proximity to the 81-mm mortar, the nature of the terrain, length of time the position is to be occupied, and whether or not additional ammunition may be procured from the battalion munitions distributing point.

c. *81-mm ammunition piles.*—81-mm ammunition is placed horizontally in containers, in low piles of not more than 20 rounds each, piles at least 10 yards apart. An all round embankment of earth not less than 1 foot high and 2 feet thick, properly drained, is thrown up around each ammunition pile to protect it.

d. *Preparation of 81-mm ammunition.*—Normally, 81-mm ammunition is delivered to the mortar squad in sealed containers; however, when the number and type of shell to be used has been announced, members of the ammunition squad may be required to remove the shells from their containers before carrying them forward. Once prepared, but not used immediately, they are replaced in their containers, but not taped until the command **Out of action**.

e. The squad leader designates a member or members of the squad to procure the 37-mm ammunition cart and the 81-mm mortar cart and ammunition cart as necessary. These carts, together with those of the ammunition squad, are aligned 3 paces in rear of the ammunition piles or, if ammunition is not piled, 3 paces in rear of the ammunition squad.

f. Upon completing their duties, Nos. 1 to 8 inclusive form in single rank in numerical order from right to left, 3 paces in front of the ammunition piles or, if not piled, 3 paces in front of the carts.

ACTION

g. In combat.—The platoon munitions distributing point is established in a defiladed position, ammunition piles and carts concealed, and members of the squad utilize available cover prone so as not to interfere with the performance of their duties.

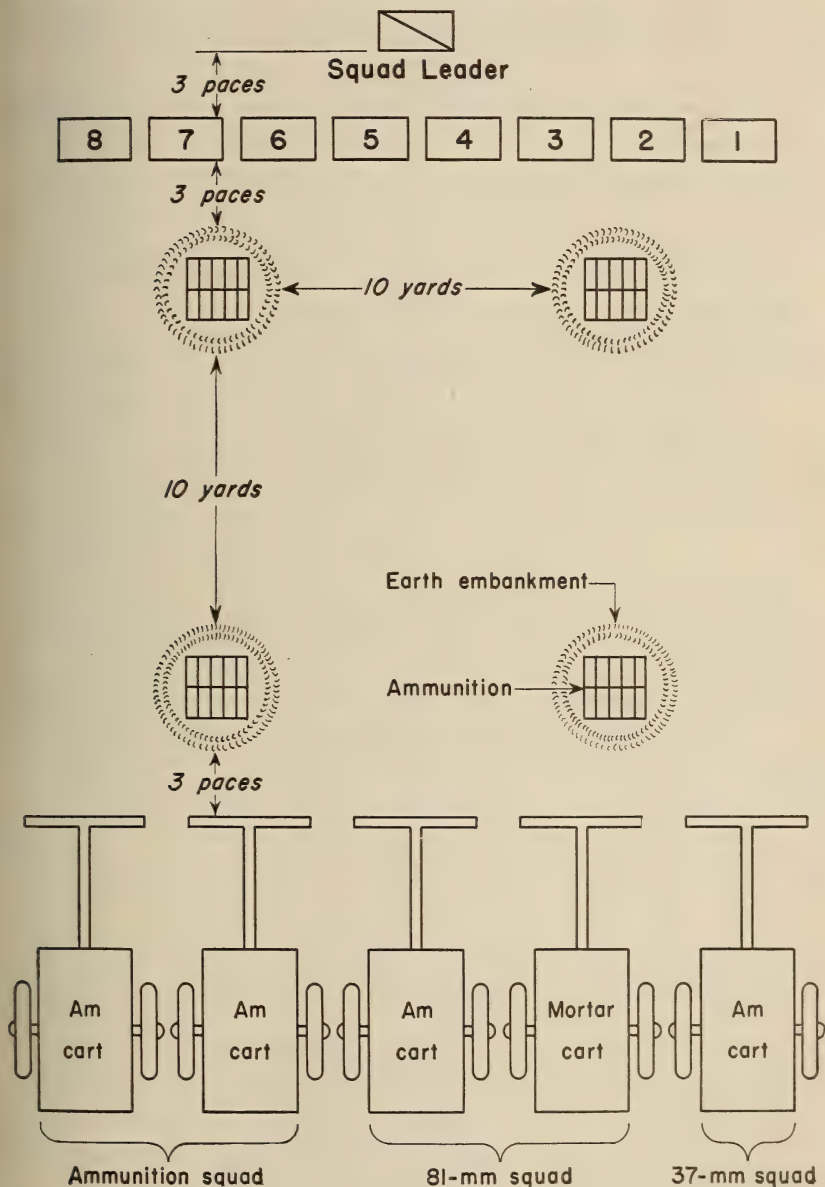


FIGURE 10.—A platoon munitions distributing point (Action).

DRILL, AMMUNITION SQUAD

7-48. *OUT OF ACTION*.—*a. To go out of action, ammunition on carts.*—

(1) The command is: 1. ***On wheels***, 2. ***OUT OF ACTION***.

(2) The squad leader designates a member or members of the squad to return the 37-mm ammunition cart and the 81-mm mortar cart and ammunition cart to their respective squads and bring back excess ammunition from the gun and mortar positions.

(3) Ammunition is replaced in containers, open containers retaped, and carts loaded.

(4) The squad then forms as indicated in figure 9 (A) or, if so directed, as indicated in figure 8 (A).

b. to go out of action, ammunition carried by hand.—

(1) The command is: 1. ***By hand***, 2. ***OUT OF ACTION***.

(2) Executed as described above except that:

(a) Ammunition is placed in carrying harness.

(b) The squad leader designates a member or members of the squad to stand by the carts and forms the remainder in squad column as indicated in figure 9 (B) or in line as indicated in paragraph 7-42a (2).

SECTION V

INSPECTION, THE SPECIAL-WEAPONS PLATOON

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7-49. *INSPECTION OF INDIVIDUAL ARMS.*—Conducted generally as prescribed for a rifle platoon except:

a. When equipment is on wheels, drags are first grounded and ranks are not opened.

b. When equipment is carried by hand it is grounded and the platoon re-formed as a rifle platoon on the left of the grounded equipment. It is exceptional to form for inspection when equipment is carried by hand.

7-50. *INSPECTION OF PERSONAL FIELD EQUIPMENT WHILE IN RANKS.*—Conducted generally as prescribed for a rifle platoon except that drags are grounded and the platoon re-formed as a rifle platoon on the left of the carts.

7-51. *INSPECTION OF SPECIAL-WEAPONS EQUIPMENT.*—

a. Special-weapons equipment being on carts on the right of the position occupied by the platoon and packs having been opened (or individual inspection having been completed) the company commander directs ***Lay out special-weapons equipment for inspection.***

b. Equipment is displayed at the position occupied by the carts. Ranks are broken and, under supervision of the officers and petty officers, armament and equipment displayed as shown in figure 11, as follows:

(1) The gun and mortar, with sights attached, are set up for action.

(2) Equipment removed from carrying cases and ammunition carried by hand is arranged as indicated. Ammunition on carts is not removed.

c. Equipment having been displayed:

(1) The platoon petty officer re-forms his platoon (squads forming as indicated in fig. 11), reports the platoon and, when so directed, takes his post as indicated in figure 1.

INSPECTION, THE SPECIAL-WEAPONS PLATOON



FIGURE 11.—Special-weapons platoon prepared for inspection (not drawn to scale).

THE INSPECTION

(2) The platoon leader commands **REST** and takes post, facing to the front, three paces in advance of the right flank of his platoon.

(3) The inspection is then conducted as described in Chapter 3.

(4) Upon completion of the inspection of the platoon, the platoon leader takes his post, faces down the line, and commands: **ON WHEELS**, or as the case may be. The platoon replaces the weapons and equipment and re-forms as indicated in figure 1.



LANDING-FORCE MANUAL

UNITED STATES NAVY

1938



CHAPTER 8

DRILL, ARTILLERY

(Reprinted 1941 with all changes up to and including No. 5)



UNITED STATES
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WASHINGTON : 1942

FOREWORD

The Landing-Force Manual, U. S. Navy, 1938, is published in nineteen chapters as follows:

CHAPTER 1. INTRODUCTION.

CHAPTER 2. INDIVIDUAL INSTRUCTION WITHOUT ARMS AND WITH ARMS (RIFLE, AUTOMATIC RIFLE, SUBMACHINE GUN, PISTOL, AND BAYONET).

CHAPTER 3. DRILL, THE SQUAD, PLATOON, AND COMPANY.

CHAPTER 4. FORMATIONS OF THE BATTALION, REGIMENT, AND BRIGADE.

CHAPTER 5. CART DRILL.

CHAPTER 6. DRILL, MACHINE GUN, CALIBER .30.

CHAPTER 7. DRILL, THE SPECIAL-WEAPONS PLATOON (37-MM GUN AND 81-MM MORTAR).

CHAPTER 8. DRILL, ARTILLERY.

CHAPTER 9. THE INFANTRY PACK AND DISPLAY OF EQUIPMENT AND CLOTHING.

CHAPTER 10. CEREMONIES; AND MANUAL OF THE COLOR, SWORD, AND GUIDON.

CHAPTER 11. INTERIOR GUARD DUTY AND GUARD MOUNTING.

CHAPTER 12. MARCHES, SECURITY ON THE MARCH, AND OUTPOSTS.

CHAPTER 13. TENT DRILL AND SHELTER.

CHAPTER 14. FIELD SANITATION, PERSONAL HYGIENE, AND FIRST AID.

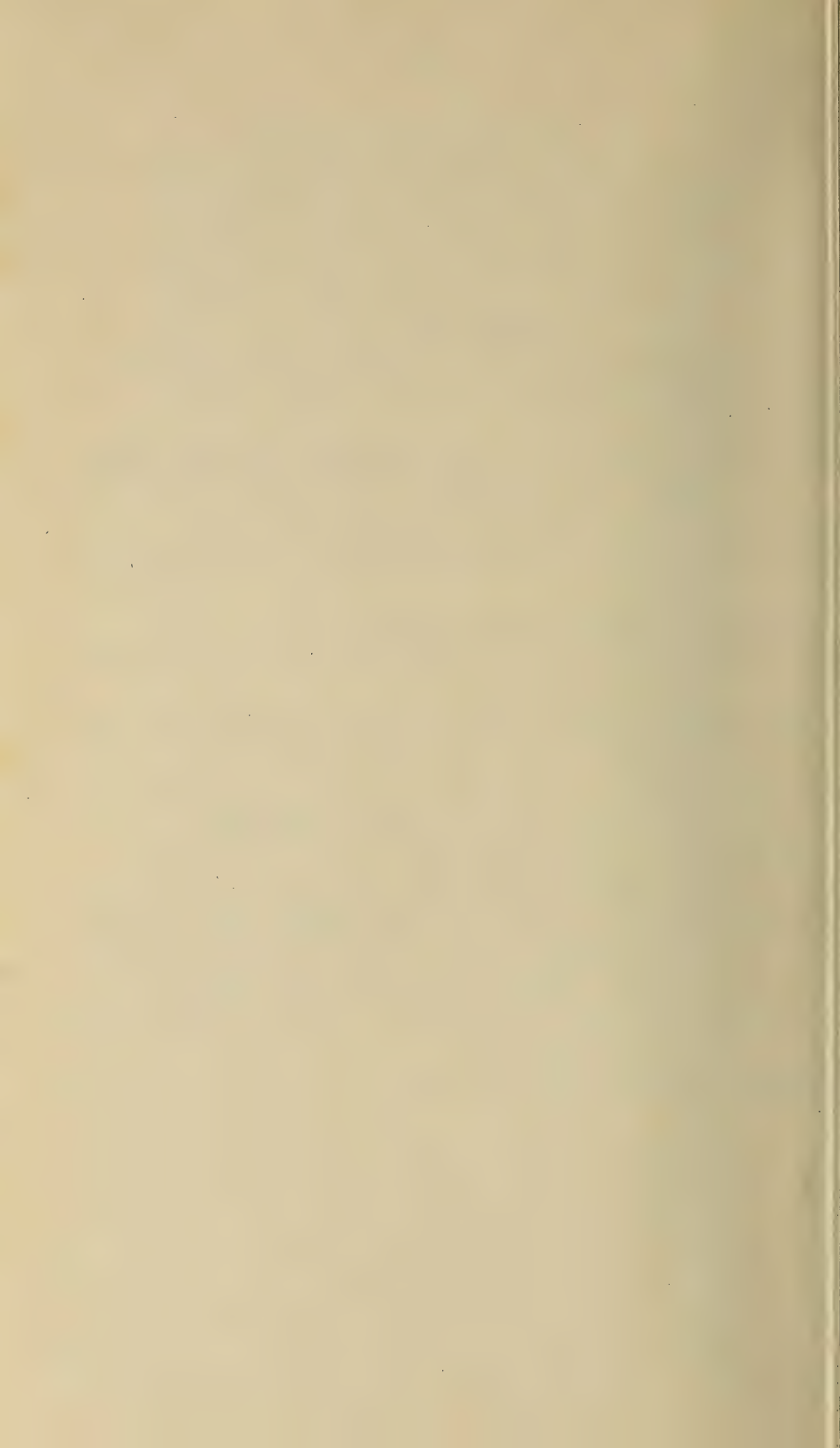
CHAPTER 15. EXTENDED-ORDER EXERCISES, COMBAT PRINCIPLES OF THE RIFLE SQUAD AND PLATOON, AND COMBAT SIGNALS.

CHAPTER 16. TACTICS AND TECHNIQUE OF THE RIFLE COMPANY AND INFANTRY BATTALION, REGIMENT, AND BRIGADE.

CHAPTER 17. THE DEFENSE AND ATTACK OF CITIES, RIOT DUTY, AND NATIONAL DISASTERS.

CHAPTER 18. PHYSICAL DRILL.

CHAPTER 19. SMALL ARMS MARKSMANSHIP.



LANDING-FORCE MANUAL

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CHAPTER 8

DRILL, ARTILLERY

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III. 3-INCH NAVAL LANDING-GUN BATTERY.....	8-17 to 8-23	19
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SECTION I

INTRODUCTION

	Par.	Page
Scope.....	8-1	3
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8-1. *SCOPE*.—*a*. Section I of this chapter covers rules which apply to all artillery units, regardless of the type of gun with which equipped.

b. Sections II and III cover that phase of artillery training which is applicable to units equipped with the 3-inch landing gun, as follows:

- (1) Organization of the landing-gun section and battery.
- (2) Position of men at drags.
- (3) Section drill with the gun.
- (4) Duties of personnel in executing in action and out of action.
- (5) Duties of personnel in transporting and landing the gun and

limber.

c. Section IV covers that phase of training which is applicable to units equipped with the 75-mm pack howitzer, M-1, as follows:

- (1) Organization of the howitzer section.
- (2) Position of men at drags.
- (3) Duties of personnel in executing in action and out of action.
- (4) Duties of personnel in transporting and landing the howitzer.
- (5) Distribution of the various loads in a motor launch.

d. Only such matter is included in this chapter as does not appear in the following publications issued by the Bureau of Ordnance, U. S. Navy:

(1) OP 131—Assemblies, 3-inch landing-gun, Mark XI, with carriage and limber.

(2) OP 133—3-inch range tables, 1650 F. S. Initial Velocity.

(3) OP 146—Handbook of 3-inch Field and Landing-guns and their Ammunition. (Mark I Mod. I field gun with carriage, Mark IV gun with carriage, Mark VII landing-gun with carriage.)

(4) Standard nomenclature list (SNL) No. C-20—Howitzer and carriage, Pack, 75-mm, M-1, Parts and equipment.

(5) OP 708—Field Artillery Field Manual Vol. I (FAFM) Organization and Drill.

INTRODUCTION

- (6) OP 709—FAFM, FM 6-20—Tactics and Technique.
- (7) FAFM, FM 6-110—Pack Artillery.
- (8) FAFM, FM 6-40. Firing.
- (9) SNL F-13—Gunners Quadrant, M1918.
- (10) SNL F-106—Telescope, Panoramic, M-1; Mount, Telescope, M-3.
- (11) SNL F-6—Circle, Aiming, M-1918 (French).
- (12) SNL F-26—Finder, Range, 1-Meter Base, M-1916.
- (13) SNL F-126—Setter, Fuze, Hand, M-1912 (75-mm guns, M-1897, M-1916, and M-1917); M-1912A3 (75-mm gun, M-1); M-1912 A4 (75-mm Pack Howitzer, M-1).
- (14) SNL F-9—Telescope, B. C. M.-1915.
- (15) SNL R-1—Ammunition, Fixed, all types, for Pack, Light, and Medium Field Artillery.
- (16) SNL R-3—Service Fuzes and Primers for Pack, Light, and Medium Artillery.
- (17) SNL R-5—Blank Ammunition for Pack, Light, and Medium Field Artillery.
- (18) Technical Regulations 1370-A (U. S. Army)—Miscellaneous Ammunition (ammunition general).
- (19) TR 1305-75E—Mobile Artillery Material, Howitzer and carriage, Pack 75-mm, M-1.
- (20) Firing tables, 75-I-2 (Pack Howitzer).

e. Artillery personnel must be familiar with the foregoing publications in order to operate their guns efficiently in combat.

8-2. *GENERAL RULES.*—*a.* The rules and principles of close-order drill for rifle units apply to artillery units except where obviously inappropriate. Drill movements are executed by the same commands as those of corresponding rifle units.

b. When not serving the piece or acting as dragmen, the 3-inch landing-gun section and 75-mm pack-howitzer section form in the same manner as a rifle platoon.

c. When the drag is manned, the front is the direction in which the trail points; when in battery, it is the direction in which the muzzle points. The terms **right**, **left**, and **rear** are with reference to the front so defined.

d. When the drag is manned, the 3-inch landing-gun section and the 75-mm pack-howitzer section execute the **halt**, **rests**, **steps** (ex-

GENERAL RULES

cept side and back step) and **marchings, resume attention, change direction slightly, oblique, and resume the direct march**, as prescribed for the rifle company, with the following modifications:

(1) *In executing the halt*.—Nos. 1, 2, 3, and 4 check the motion of the piece and limber; the drag leaders stretch the drags taut.

(2) *To incline to the right (left)*.—The drag leaders take the new direction followed by the other numbers.

(3) *Right (left) oblique*.—Cannot be executed as prescribed for rifle units; the movement is executed in the same manner as the incline, except that the change of direction is 45 degrees.

e. A gun is said to be in battery when in its normal firing position.

f. The chief petty officer, buglers, and messengers are armed with the pistol; other enlisted men are normally armed with the rifle. When duty away from the gun is improbable, the gun squads of permanently organized artillery units may be armed with the pistol. Personnel of the howitzer section is similarly armed.

g. The arm and hand and whistle signals prescribed for rifle units, may be used for artillery as far as practicable.

SECTION II

3-INCH LANDING-GUN SECTION

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8-3. *ORGANIZATION.*—*a. The 3-inch landing-gun section at normal strength comprises:*

- 1 lieutenant (jg) or ensign.—Section leader.
- 1 chief gunner's mate.—Gun captain, second in command.
- 1 petty officer, second class.—Ammunition petty officer.
- 1 gun squad (normally 8 men).—Each assigned a number from 1 to 8, inclusive; No. 1 a petty officer, third class, is the gun pointer.
- 3 squads, ammunition carriers (dragmen).—These men maintain the supply of ammunition between the munitions distributing point and the gun, and in some situations may be assigned appropriate duties at the munitions distributing point.

b. The number of dragmen may be increased or decreased, as required.

8-4. *TO FORM THE SECTION.*—The 3-inch landing-gun section forms by the same commands and as prescribed for a rifle platoon, the gun squad forming as the rear squad of the section.

3-INCH LANDING-GUN SECTION

8-5. *DRAGS AND CHECK ROPES.*—*a. The drag.*—The drag consists of a span, crossbar, and two dragropes. The span is fitted with sister hooks or a snap hook which engages with the ring on the end of the drawbar of the limber or the trail of the piece. The crossbar is $3\frac{1}{2}$ feet long and is fitted with thimbles on each end into which the dragrope snap hooks are hooked. Each dragrope is fitted with 4 or 6 toggles, 5 feet apart. Either dragrope may be used without the span or both may be combined to make a single drag of double length.

b. Wheel drags.—The wheel drags are short dragropes attached to the wheel lugs of the limber.

c. Check ropes.—The check ropes are short drags normally attached to the axle of the gun. In descending inclines they are attached to the wheel lugs of the gun; and used as wheel drags (see par. 8-10a).

8-6. *TO FORM AT THE DRAG.*—*a.* Being in any formation, to form at the drag, the command is: **MAN THE DRAG.** Men take positions as shown in figure 1, with rifles slung. Nos. 5 and 6 of the gun squad attach the span of the dragropes to the drawbar of the limber (if the limber is not attached to the gun); Nos. 7 and 8 of the gun squad lead out the dragropes; the even-numbered dragmen pick up the toggles, and all dragmen draw the dragropes taut and stand fast. Nos. 1, 2, 3, and 4 of the gun squad hook the trail of the gun to the limber (if unhooked) and man the wheel drags and check ropes.

b. The rifle may be slung—

(1) Diagonally across the back, muzzle up and to the left, the sling over the left shoulder.

(2) Over the right (left) shoulder, butt down, barrel to the rear.

TO FORM AT THE DRAG

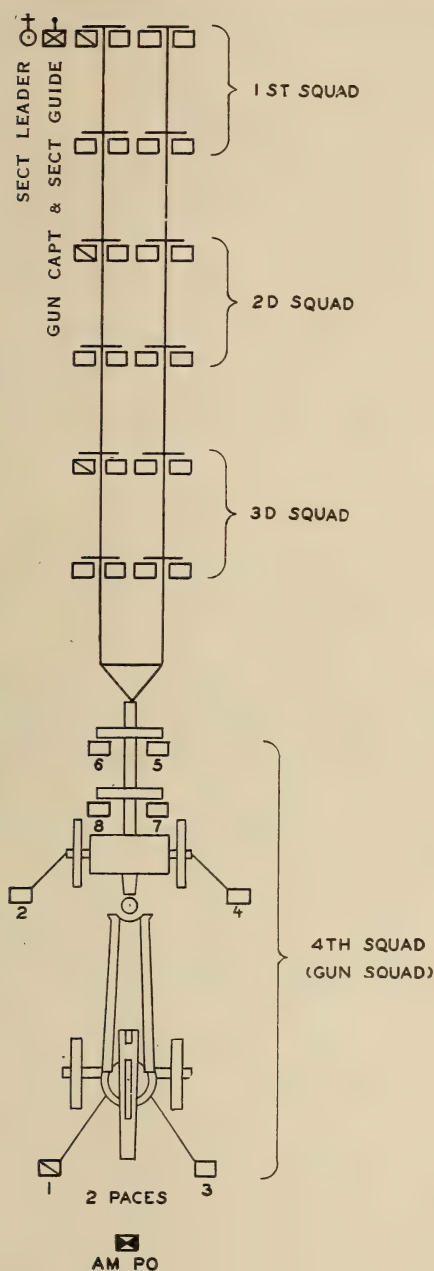


FIGURE 1.—Formation at the drag, the 3-inch landing gun, limbered.

3-INCH LANDING-GUN SECTION

8-7. *TO CHANGE DIRECTION.*—*a.* The drag being manned, to change direction, the command is: 1. **Column right (left)**, 2. **MARCH.**

b. With limber.—At the second command, the leaders turn to the right in double time, gaining ground so that the piece turns in a circle of 3 yards radius; the other men so regulate their step as to complete the movement at the same time as the leaders. Upon completing the turn, the men march in the prescribed cadence (see fig. 2).

c. Without the limber.—The leaders turn to the right in double time leaving the drags slack; other men so regulate their step as to complete the movement with the leaders; Nos. 4 and 2 raise the trail until the trail wheel is well clear of the ground, and turn the piece, assisted by Nos. 3 and 1 at the check ropes. Dragmen must be careful not to exert any pull on the gun while Nos. 4 and 2 are swinging the trail.

8-8. *TO MARCH TO THE REAR.*—The drag being manned, to march to the rear, the command is: 1. **Right (left) about**, 2. **MARCH.** Executed as prescribed for **column right (left)**, except that the change of direction is 180 degrees instead of 90 degrees.

8-9. *TO MOVE TO THE REAR BY HAND.*—The drag being manned, to move to the rear by hand, the command is: 1. **Rear by hand**, 2. **MARCH.** At the second command, men face to the rear, those at the piece and limber moving them backward until the command **Halt**, when all face to the front. If necessary, dragmen may be detailed to assist on wheel drags of piece and limber.

8-10. *DESCENT OF INCLINES.*—*a. Moderate inclines.*—Nos. 5 and 6 unhook the span from the limber. The dragmen move to the rear of the piece and No. 1 of the gun squad hooks the span to the drag hook or eye on the axle of the piece; Nos. 3 and 1 of the gun

TO GO INTO BATTERY

squad shift the check ropes from the axle to the wheel lugs of the piece. Nos. 5, 6, 7, and 8 guide the limber; Nos. 1, 2, 3, and 4 of the gun squad assist on wheel drags; dragmen lower the piece and limber down the incline.

b. Steep inclines.—On steep inclines the above procedure may be followed except that the gun and limber are lowered separately. If desirable, the 2 dragropes may be hooked together forming a long single drag of double length.

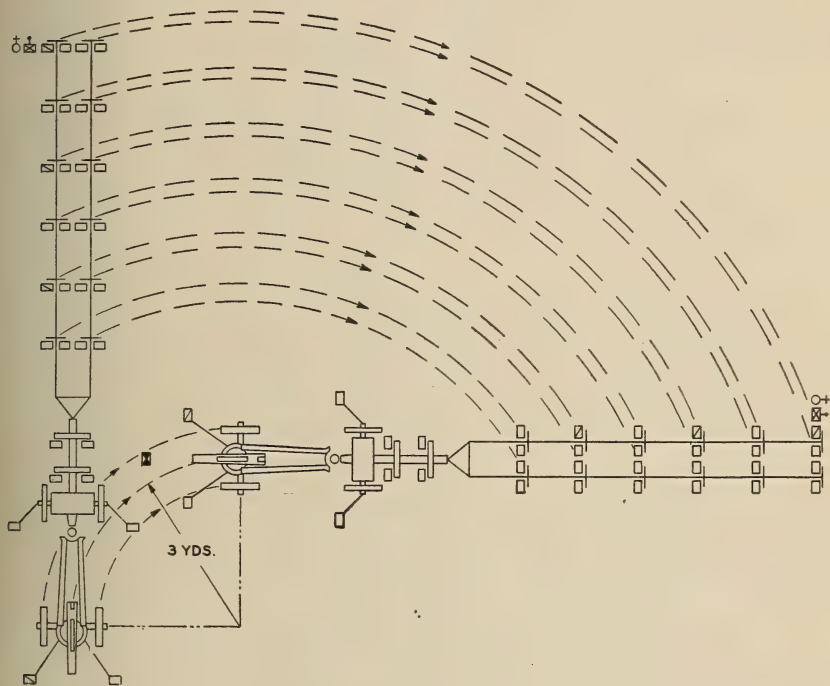


FIGURE 2.—Column right, the 3-inch landing gun, limbered.

8-11. *TO GO INTO BATTERY.*—*a.* The drag being manned, to go into battery, the command is: **IN BATTERY FRONT (REAR, RIGHT, LEFT).** At this command:

(1) *The gun squad.*—Nos. 4 and 2, assisted by Nos. 3 and 1 unlimber the gun. Nos. 1, 2, 3, and 4 swing the muzzle to the indicated direction. Nos. 5 and 6 unhook the dragropes from the limber. Nos. 5, 6, 7, and 8 drop back to the piece. The gun captain supervises the placing of the limber in position and preparing for action. Nos.

3-INCH LANDING-GUN SECTION

5 and 6 remove the required ammunition from the limber; Nos. 7 and 8 assist in placing the trail and bedding the spades (see fig. 3).

(2) *The dragmen.*—All dragmen drop the drag, the rear squad drops back and prepares to shift the limber. Other squads unsling arms and are formed in column of twos by the ammunition petty officer. The rear squad swings the limber into position (its axle 1 foot to the left, and 1 foot to the rear of the axle of the piece, pole

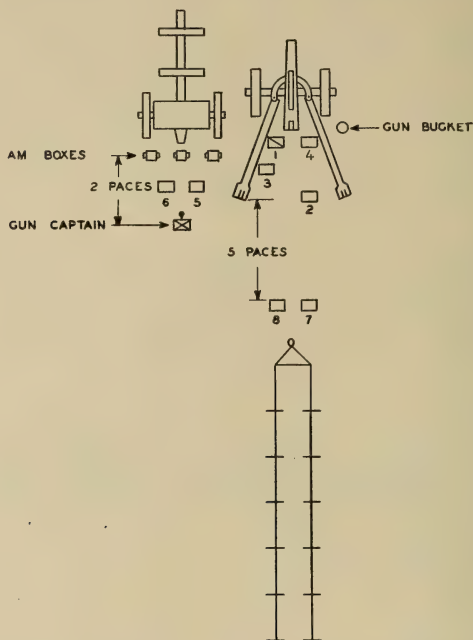


FIGURE 3.—In battery, the 3-inch landing gun, with limber.

pointing to the front); then reforms alongside of the other drag squads; and with them are conducted by the ammunition petty officer to a position 30 paces in rear of the piece, or as directed.

b. Without limber.—(1) *Gun squad.*—The dragropes are dropped in place, the span is unhooked by Nos. 7 and 8 and the span and cross bar placed clear of the trail. Nos. 5, 6, 7, and 8 remove ammunition

ACTION

boxes from the piece and place them clear of the trail. Nos. 4 and 2 unship the trail wheel and, assisted by Nos. 3 and 1, move the gun so that it points in the desired direction.

(2) *The dragmen*.—All squads are conducted to the rear. Other stations and movements are the same as when executed with the limber.

c. If the rifles of the gun squad interfere with their duties, they may be laid aside or stacked clear of the piece before or after casting the piece loose.

d. If desired, Nos. 7 and 8 may be directed to coil down the dragropes.

8-12. *ACTION*.—The gun being in battery, the command is: **ACTION**. The individual duties of the members of the section in preparing for action are as follows:

(1) *Gun captain*.—Supervises preparations; reports when gun is ready.

(2) *No. 4 (plugman)*.—Assists pointer to raise top shield; provides and places the gun quadrant; sets sight at 300; centers both range (rocker) and cross-level bubbles, if on his side; tests elevating gear if on right side of gun; provides wiping cloth; operates the breech mechanism; examines breech block and bore, cleaning any parts requiring it, and leaves the breech open; provides a lanyard, if he is to fire; seats himself on gun seat.

(3) *No. 2 (trainer)*.—Establishes the trail; if split trail type, uncouples trail flasks and separates them as far as they will go, assisted by Nos. 7 and 8; removes breech cover; ships trail handspike, if fitted; assists No. 3 to lower the piece apron; distributes waste or cotton to the gun squad for their ears; takes station by the trail.

(4) *No. 3 (loader)*.—Removes the muzzle cover and tompion; assists No. 2 to lower the piece apron; assists No. 1 (if necessary) by placing the front sight; places gun bucket 2 paces to right of the breech of the gun (the bore sponge is left in place until required); takes station on left of breech and stands by to receive a round from No. 6.

(5) *No. 1 (pointer)*.—Releases the training and elevating locks, if fitted, and tests training and elevating gear; provides and places the sight (the panoramic sight is always carried in its case); centers cross-level bubble of sight to correct for difference in level of wheels; sets deflection on panoramic sight at zero; raises top shield with the assistance of No. 4; provides lanyard if he is to fire; seats himself on gun seat.

3-INCH LANDING-GUN SECTION

(6) *No. 5 (shellman)*.—Equips himself with hand fuze setter, if provided (otherwise with fuze punch, or wrench, and range-time of flight table); takes station in rear of limber, and stands by to set fuzes.

(7) *No. 6 (shellman)*.—Opens ammunition box, takes out a round preparatory to having the fuze set.

(8) *Nos. 7 and 8 (shellmen and supernumeraries)*.—Assist in placing and opening ammunition boxes, assist No. 2 to separate trail flasks (Mark XI) and bed spades; then take station 5 paces in rear of piece to act as supernumeraries. The gun squad takes cover, so far as is practicable, behind piece and limber.

8-13. *DUTIES IN SERVICE OF THE MARK XI AND MARK VII GUNS*.—The duties of the gun crew in the service of the Mark XI gun and of the Mark VII gun are as follows:

a. Gun captain.—(1) Supervises and is responsible for all the details of correct service by the gun squad.

(2) Makes sure of the identification of his part of the target or of the aiming points.

(3) Keeps informed as to firing data so he can repeat any parts not understood by the gun squad; repeats only data called for by a subordinate. If any part of the order is not understood, he asks for it thus: **Site, corrector**, etc.

(4) Sees that members of the gun squad stand clear of the gun for the first two or more shots, as necessary.

(5) Extends his right arm vertically as soon as the pointer calls **Ready**, to indicate that the piece is ready to fire. Lowers his hand as the pointer fires (or calls **Fire**).

b. No. 1 (pointer).—(1) Sets the deflection.

(2) Applies the deflection difference.

(3) Levels the cross-level bubble, thus correcting for any difference in level of wheels.

(4) Lays the gun for direction (using traversing handwheel, and having trail shifted, if necessary).

(5) For direct fire, lays the gun (using rocker elevating handwheel).

(6) Hooks lanyard or grasps firing handle.

(7) Calls **Ready**, when gun is laid and ready to fire.

(8) Moves his head out of the way of the sight before the gun is fired.

(9) Fires at the correct time.

Modifications.—Mark VII.

Omit: (5), (6), and (9).

DUTIES IN SERVICE OF THE MARK XI AND MARK VII GUNS

Add:

(3a) For direct fire, sets the range.

(5a) For direct fire, lays the gun for elevation.

(9a) Calls **Fire** at the proper time.

c. No. 4 (plugman).—(1) Opens and, if necessary, closes the breech, leaving it open except when gun is loaded.

(2) Examines plug, wipes off when necessary.

(3) For direct fire, sets index at 300 on site scale.

(4) Elevates gun (using gun elevating handwheel) until index points to range ordered.

(5) Calls **Set** when gun is laid for range.

Modifications.—Mark VII.

Omit: (3) and (4).

Add:

(3a) Sets the range and site on the quadrant.

(3b) Centers range and cross-level bubbles of quadrant.

(6) Hooks the lanyard if it is to be used.

(7) Fires the piece at the command of the pointer.

d. No. 2 (trainer).—(1) Shifts trail, when directed by pointer (assisted by Nos. 7 and 8).

(2) Beds or raises spades (assisted by Nos. 7 and 8).

(3) Extracts empties, or catches them when ejected from gun, and throws them clear of the gun squad.

e. No. 3 (loader).—(1) Receives a round from No. 6.

(2) Inserts round in the breech.

(3) In volley fire calls the number of the round, thus (for three rounds): **First round, second round, third and last round.**

f. No. 5 (shellman).—(1) Sets range and corrector on the hand fuze setter, if supplied.

(2) Sets the fuze (for time fire), assisted by No. 6.

(3) If fuze punch or wrench is used, refers to range-time of flight table and sets fuze for the range, unless otherwise ordered.

(4) Uses the hand fuze setter, first setting the range and corrector scales on the fuze setter as ordered; clamps them; strips off the fuze cover; places the fuze setter over the point of the shrapnel and turns the handle in a clockwise direction until the rotating pin of the fuze engages in the notch of the range ring carrier; then presses the fuze setter firmly on the fuze, and continues to turn the handle until the lug in the fuze setter base engages the stop pin in the fuze body and prevents further rotation.

g. No. 6 (shellman).—(1) Takes a round from the box.

3-INCH LANDING-GUN SECTION

(2) Holds the round for No. 5 to set the fuze (time fire).

(3) Passes the round to No. 3.

h. Nos. 7 and 8 (shellmen and supernumeraries).—(1) Assist No. 2 in shifting trail, bedding and raising spades.

(2) Start construction of artificial cover, if directed.

8-14. *OUT OF ACTION.*—The gun being in battery and prepared for action, the command is: **OUT OF ACTION**. At this command Nos. 1, 2, 3, and 4 secure the gun and Nos. 5, 6, 7, and 8 replace ammunition boxes on the limber, and prepare the limber for march. Each member of the gun squad returns what he provided, and secures what he cast loose, with the following modifications:

(1) *No. 1.*—Sets the panoramic sight deflection at zero before returning to its case; lays the piece in mid-position and levels it; then secures the gun with travelling lock, if provided.

(2) *No. 4.*—Closes the breech and releases the firing pin.

(3) *Nos. 5 and 6.*—Reset the fuzes of all rounds prepared for firing, to safety position, before returning them to the ammunition box.

(4) *Nos. 7 and 8.*—Assist in returning unused ammunition and in securing boxes.

8-15. *TO PREPARE TO MARCH.*—Being in battery, the command is: **LIMBER FRONT (REAR, RIGHT, LEFT)**.

a. With limber.—(1) *Gun squad.*—Nos. 1, 2, 3, and 4 prepare the piece, and Nos. 5, 6, 7, and 8 the limber, to put them in march. Nos. 4 and 2 hook the trail to the limber; Nos. 5 and 6 hook the drag to the limber.

(2) *The dragmen.*—Dragmen are conducted to the drags in double time. The rear squad assists Nos. 5, 6, 7, and 8 in placing the limber in position. Nos. 2 and 3, leading squad, lead out the drags.

b. Without limber.—Nos. 7 and 8 lead out the drags; Nos. 5 and 6 hook them to the trail; Nos. 4 and 2 raise the trail and secure the trail wheel in place.

8-16. *LANDING THE 3-inch LANDING GUN.*—*a.* The heaviest motor launches are used in transporting the piece. The method used will primarily depend upon the conditions where the piece is to be landed. The gun and limber, each fitted with heavy straps around the axles, are easily hoisted into the boat with the ship's crane or one of the boat davits. The preparations in the boat for receiving the piece depend on how it is to be landed on the beach.

LANDING THE 3-INCH LANDING GUN

b. If a crane is available ashore, no preparations are necessary except to get sufficient clear space in the boat for the piece and limber.

c. If a dock without crane facilities is available ashore, spars, tackle, and guys for rigging shears should be provided for hoisting the piece on the dock.

d. Where there is heavy surf, the gun is landed by means of a transporting spar. This spar, about 12 feet long, fitted with two grommets is toggled to the gun, one grommet forward of the recoil cylinder, and the other abaft of it. The grommets must be firmly fixed on the spar to prevent slipping. In securing the spar to the gun, the toggles are twisted tightly and, if the surf be very heavy, extra lashings are passed around the spar and gun. If a regular transporting spar is not provided, a boat mast may be used, the gun being lashed to the mast with halliards, sheets, or other available gear. It is preferable to secure the transporting spar to the gun before hoisting them into the boat; then secure the gun amidships, in a fore and aft position, spar on top; the carriage, wheels, and boxes being stowed in the stern sheets. When the limber is used with 3-inch landing gun, may be stowed and handled in like manner. In landing, the carriage follows the gun out of the boat; then the dragmen return for the limber and ammunition boxes.

e. As soon as the boat has reached the beach the piece is landed as follows: Nos. 3 and 4 unkey and raise the cap squares; six men jump overboard to receive the forward end of the spar; the remaining men lift the gun clear of the mount, and pass it forward carefully over the bow; the inner end of the spar is rested on the gunwale while six more men man the after end; all then carry the gun ashore. Four men land the wheels; four others receive the carriage which is passed to them by those remaining in the boat. With heavy surf, or a lateral current, an anchor should be dropped astern before the boat is beached, to prevent it from drifting ashore broadside and to hold it "bows on" to the sea.

f. If the sea is smooth, the landing place good and well protected, and it is necessary to land the piece quickly and get it into action, the following method is preferable: Provide 4 planks 10 feet long, about 1-foot wide and 2 inches thick, fitted with 2-inch ledges or combings along the sides. Two of these may be placed fore and aft in the boat, with the distance apart equal the width of the tread of piece, forward ends blocked up on the bows gunwale high; or the planks may be thus blocked up when the shore is reached. Embark the gun and

3-INCH LANDING-GUN SECTION

carriage intact, except ammunition boxes, muzzle forward, and secure them in the boat at the after end of the plank tracks. The limber may be placed abaft of the gun, or transported in another boat. Beach the boat bows on; place the second pair of planks in continuations of those in the boat to the shore, securing the boat ends by lashings. Move the gun forward and over the bow muzzle first, then ease out with one drag, hooked to the trail. A short plank or spar placed across the skids in the boat, then across the shore skids just forward of the trail wheel of the gun held by two men will support the weight of the trail while the gun is being landed.

g. If a boat is narrow and the stem prevents the gun going over the bow easily, or there is difficulty in securing the shore skids to the gunwale, back the boat in, holding or anchoring her stern on to the beach; secure the boat skids and shore skids to the stern and proceed as before.

h. A further modification of this method may be employed with the boat broadside on to the beach and listed well over; the gun and carriage are then skidded ashore upon the planks.

SECTION III

3-INCH LANDING-GUN BATTERY

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Movements from line-----	8-21	20
To extend or close intervals-----	8-22	20
To go into battery-----	8-23	20

8-17. *ORGANIZATION*.—The artillery battery is organized as prescribed in par. 21 Field Artillery Field Manual, Volume I, U. S. Army (Ordnance Pamphlet 708 USN). For the battery drill herein described, it is assumed that the battery consists of two or more sections organized as prescribed in section II of this chapter.

8-18. *GENERAL RULES*.—*a*. In **column** the distance between sections is 4 paces; in **line** the interval between sections is equal to the length of the dragpoles, piece, and limber (section length) plus 4 paces.

b. Simultaneous movements to the flank or rear are executed by the commands: 1. **Sections**, 2. **Column right (left)**, 2. **MARCH**.

c. **Right (left) oblique** is executed simultaneously by each section.

8-19. *TO FORM THE BATTERY*.—*a*. The battery may be formed in line or in column at the drags, or as prescribed for a rifle company.

b. When formed as a rifle company, drags are manned as prescribed for a section.

8-20. *MOVEMENTS FROM COLUMN*.—Being in column, the battery may execute the following successive movements:

a. **INCLINE TO THE RIGHT (LEFT)**. The leading section changes direction as indicated, followed by the other sections as they arrive at the turning point.

b. 1. **Column right (left)**, 2. **MARCH**. The leading section executes column right, followed by the other sections, as they arrive at the turning point.

3-INCH LANDING-GUN BATTERY

8-21. *MOVEMENTS FROM LINE*.—1. *Sections*, 2. *Column right (left)*, 3. *MARCH*. The sections execute a change of direction simultaneously.

8-22. *TO EXTEND OR CLOSE INTERVALS*.—Being in line: 1. *Extend (close)*, 2. *On right (left) section*, 3. *MARCH*, 4. *Battery*, 5. *HALT*. The right section moves straight to the front or in the direction indicated by the battery commander. The command *Halt*, is given when it has advanced the desired distance. The right section halts; other sections oblique away from (toward) the leading section until the prescribed interval is gained, then move to the front and halt abreast of the right section.

8-23. *TO GO INTO BATTERY*.—*a*. The battery being in any formation, to go into battery, the command is: 1. *In Battery*, 2. *FRONT (REAR, RIGHT, LEFT)*. At this command the section leader of the first section puts his piece in battery in the direction indicated. The leaders of the other sections put their pieces in battery to the left of the first piece at 20 yard intervals.

b. The battery commander may indicate the exact location for each piece by use of gun marker (a man, stake, etc.) or other means, in which case section leaders conduct their sections to these positions and go into action in the direction ordered.

SECTION IV

75-MM PACK-HOWITZER SECTION

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To place the piece in travel position.....	8-32	29
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8-24. *ORGANIZATION.*—*A howitzer section comprises—*

- 1 petty officer, first class.—Gun captain.
- 1 howitzer squad (1 petty officer, third class, and 10 nonrated men).—The petty officer, third class, is the gunner; the nonrated men are assigned numbers from 1 to 10, inclusive.
- 1 ammunition squad (1 petty officer, third class, and 8 nonrated men).—The petty officer, third class, is the ammunition petty officer; the nonrated men are assigned numbers from 11 to 18, inclusive.
- 1 75-mm pack howitzer complete, consisting of a howitzer with its carriage, ammunition cart or carts, and the necessary tools and accessories.

8-25. *TO FORM THE SECTION.*—*a.* The 75-mm pack-howitzer section forms by the same commands and as prescribed for a rifle platoon, the howitzer squad forming as the leading squad of the section.

b. The howitzer and ammunition squads may be formed separately by the gunner and ammunition petty officer, when it is necessary or desirable for them to form in different places.

c. When the strength of the section is reduced, vacancies in the howitzer squad are filled from the ammunition squad, but No. 11 retains his post and duties. The howitzer squad should never be maintained at a strength less than the gunner and six men.

d. When the section forms as a rifle platoon for close-order drill, the gunner will act as right guide; squads count off as for rifle units.

75-MM PACK-HOWITZER SECTION

8-26. *DRAGS.*—*a. The drag.*—Dragropes M-1918 (Infantry howitzer platoon) may be used or a double harness may be fabricated. Double harness consists of one or more extension pieces of manila line 40 inches long, fitted with a snap hook at one end and a ring at the other, through which is passed two loops (harness for 2 men) of one and one-half inch web strap, long enough to pass behind the neck and over both shoulders. Sister hooks or a heavy snap hook should be provided to attach the first extension piece to the carriage. If issue dragropes M-1918 are used, dragmen should place the sling over the outboard shoulder.

b. Wheel drags.—The wheel drags are short dragropes attached to the wheel lugs of the ammunition cart and piece. When descending inclines, they may be used as check ropes.

c. Formation.—The ammunition cart may either precede or follow the piece as convenient. When personnel is limited and the distance to be covered is short, the piece may be limbered to the cart and men posted as shown in figure 5.

8-27. *TO FORM AT THE DRAGS.*—Being in any formation, to form at the drags, the command is: **MAN THE DRAGS.** Men take positions shown in figure 4 (or fig. 5); sling rifles if carried; attach dragrope or harness to proper places on equipment and face to the front. Nos. 3 and 4 and 13 and 14 pick up the drawbar handle or cross bar as the case may be.

DRILL

8-28. *DRILL*.—The drill of units equipped with the 75-mm pack howitzer is conducted by the same commands and in the same manner as prescribed for the 3-inch landing-gun section.

8-29. *TO GO INTO ACTION* (see fig. 6).—The drags being manned, to go into action, the command is: **ACTION FRONT (RIGHT, LEFT, or REAR)**.

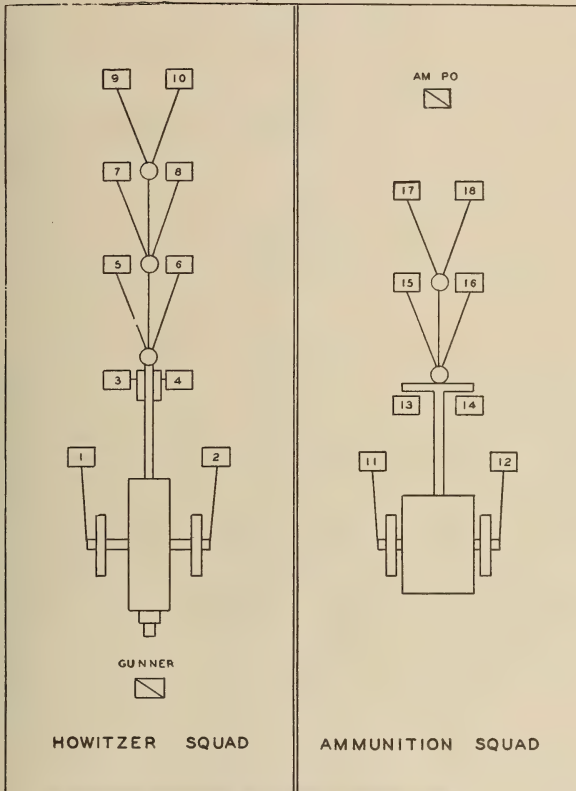


FIGURE 4.—Position of men at drags, 75-mm pack howitzer, unlimbered.

Nos. 3 and 4 swing the muzzle of the howitzer in the desired direction by means of the drawbar.

Nos. 5 and 6 place the cart abreast of and 20 inches to the left of the howitzer, drawbar to the front.

The gunner loosens the cincha.

No. 1 removes cincha and places it to the right of the howitzer.

No. 7 removes both seats, if the howitzer is so equipped, and places them to the right rear.

75-MM PACK-HOWITZER SECTION

Nos. 1, 3, and 5 remove the lifting bar bag and empty it to the right.

Nos. 2 and 4 remove the rear trail and place it to the rear.

The gunner, assisted by No. 7, removes the sight and tool chests and places them to the left rear.

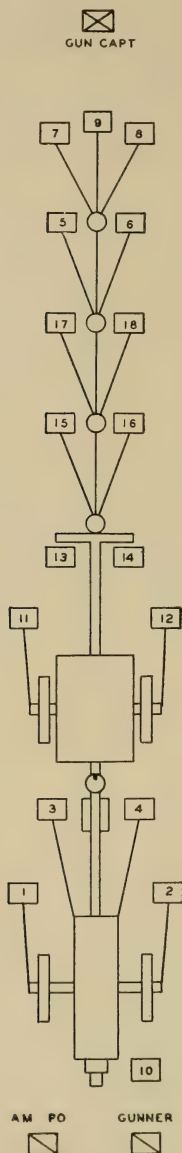


FIGURE 5.—Position of men at drags, 75-mm pack howitzer, limbered.

TO GO INTO ACTION

Nos. 1, 3, and 5 insert lifting bars from the right side, No. 5 holding the front bar and No. 1 the rear bar.

No. 7 takes the handspike, places it near the left wheel and then lifts the drawbar while the tube and recoil assembly is removed to the front.

Nos. 1, 2, 3, 4, 5, and 6, using the lifting bars, lift the tube and recoil assembly, remove it and place it to the front. Nos. 1, 3, and 5 on the right and Nos. 2, 4, and 6 on the left are in the order stated from rear to front.

Nos. 1, 2, 4, and 7 change the wheels and axle to the forward position, No. 1 handles the right wheel and the axle housing lock, No. 4 the left wheel, and Nos. 2 and 7 from positions in rear of the axle lift the front trail and rockers during this operation. No. 4 releases the traversing handwheel thong before the axle is removed.

Nos. 1, 2, 3, 4, 5, and 6 lift and place the tube and recoil assembly on the rockers in the firing position, No. 7 aids them by lifting the drawbar.

No. 3 latches the rocker hooks.

Nos. 1 and 3 remove their lifting bars and place them to the right of the howitzer, while Nos. 5 and 6 remain at their positions.

Using the handspike, No. 7 unlocks the drawbar, Nos. 2 and 4 replace it with the rear trail. No. 7 then locks the drawbar in position, at the rear end of the rear trail. Nos. 5 and 6 assist by bearing down on their lifting bars, thus raising the rear of the piece. No. 5 then removes his lifting bar and places it with the others.

No. 6 removes the muzzle cover and places it on the lifting bars.

The gunner places the sight and sight extension bar in place and hands lanyard to No. 1. No. 1 attaches right seat and lanyard and hands left seat to gunner.

Nos. 3, 4, and 5 loosen and roll back the cart paulin.

No. 3 removes the bracket fuze setter and sets it on the cart.

No. 6 removes the aiming stakes and, if No. 8 is not present, stands by to carry them out and place them if required.

No. 7 arranges the lifting bars, manta or bag, cincha, etc., in an orderly manner to the right of the howitzer.

The gun captain, gunner, and No. 1 measure the minimum elevation.

The gun captain supervises the entire procedure. If only six men are present, he acts as No. 7 except for arranging the accessories.

75-MM PACK-HOWITZER SECTION

The gun captain paces the distance between the muzzle of his own piece and that of the next piece on his left and announces the interval in yards to the executive officer as: ***Two to three, 18 yards.***

If Nos. 8, 9, and 10 are present, they place the ammunition cart in position after Nos. 5 and 6 have uncoupled it (if it is coupled), and roll back the paulin. No. 8 assembles the aiming stakes and prepares to carry them out if called for. Confusion is avoided by employing only the gunner and seven men to place the howitzer in the firing position. Nos. 8, 9, and 10 should be assigned duties not interfering with the other members of the crew.

Dragropes of the howitzer squad are placed to the right of the howitzer, while those of the ammunition squad are placed to the left of the cart.

8-30. **DUTIES OF THE HOWITZER SQUAD.**—*a. The gun captain.*—Goes where he can control the service of his piece, hear commands, and perform his duties effectively. A convenient post is 2 yards to the right of the trail. His duties are—

- (1) To be responsible for the service of his piece.
- (2) To place the piece in position, to have it prepared to fire, and to enforce fire and camouflage discipline.
- (3) To identify and point out to the gunner the aiming point, the reference point, or the part of the target assigned to his piece.
- (4) To measure and report the minimum elevation as soon as the piece is laid.
- (5) To follow the fire commands, but to repeat only such part as may be called for by a member of his howitzer squad.
- (6) To supervise and check the work of the howitzer squad and to report to the executive officer any errors discovered in laying.
- (7) To follow exactly any fire schedule.
- (8) For direct laying, to indicate the general direction in which the piece must be laid.
- (9) To operate the gunner's quadrant when used.
- (10) To indicate that his piece is ready to fire by extending his right arm vertically as soon as his gunner calls ***Ready.***
- (11) To give or repeat the command: ***FIRE,*** at the same time dropping his arm sharply to his side.
- (12) To report when the piece is out of action and the reason therefore; as: ***No. 1 (or so and so) out, firing pin broken.***
- (13) To have section ammunition properly handled, cared for and stored, and the howitzer and equipment cleaned as prescribed.

DUTIES OF THE HOWITZER SQUAD

(14) To see that the ammunition issued to his section for any particular firing is of one lot, reporting any discrepancy to the executive officer.

(15) To enforce strict compliance with safety precautions.

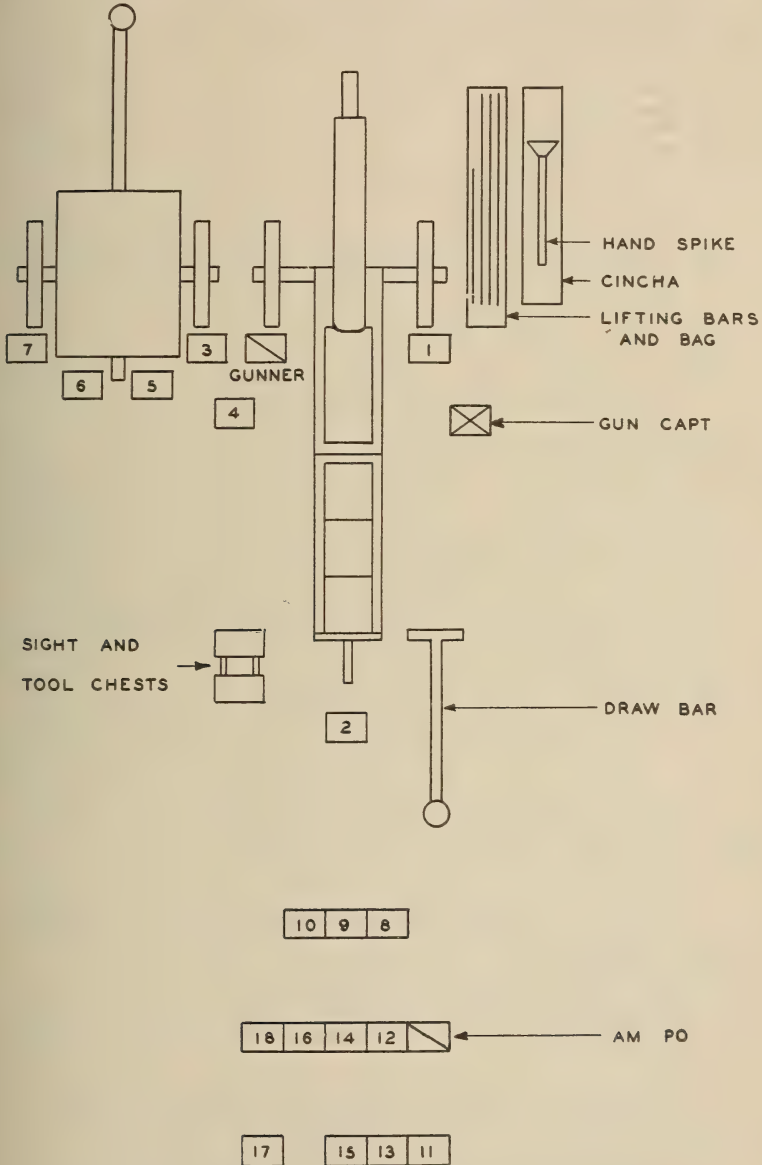


FIGURE 6.—The 75-mm pack-howitzer section in firing position.

75-MM PACK-HOWITZER SECTION

- b. Gunner.*—(1) To set or change the deflection.
 (2) To apply the deflection difference.
 (3) To set the angle of site.
 (4) To lay for direction.
 (5) To set angle of elevation or range.
 (6) To center angle of site bubble.
 (7) To center cross-level bubble.
 (8) To call **Ready**.
 (9) To refer the piece.
- c. No. 1.*—(1) To open the breech.
 (2) To close the breech.
 (3) To aid the gunner in elevating and depressing the piece.
 (4) To call **Set** when piece is loaded and ready to fire.
 (5) To fire the piece.
- d. No. 2.*—(1) To shift the trail.
 (2) To throw empty shell cases out of the way.
- e. No. 3.*—(1) To set the bracket fuze setter.
 (2) To set fuzes for super-quick or short-delay (shell).
 (3) To set fuzes with wrench if bracket or hand fuze setter is not available (shrapnel).
 (4) To verify number of increments of powder charge (shell).
- f. No. 4.*—(1) To load the piece.
 (2) To hold projectile while No. 3 sets the fuze (shell).
 (3) To hold projectile while No. 5 removes excess powder increments from case.¹
 (4) In volley fire, to call out the number of the round.
 (5) When necessary, to assist No. 2 in laying the piece for direction.
- g. No. 5.*—(1) To remove excess powder increments to the correct charge.
 (2) To cut the fuse when bracket fuze setter is used.
 (3) To pass the round to No. 4.
- h. No. 6.*—(1) To remove ammunition from fiber container and to prepare it for firing.
 (2) To remove waterproof cap from fuze.
- i. No. 7.*—(1) To remove ammunition from cart or trailer and to aid No. 6.

¹ Semifixed ammunition differs from fixed ammunition in that while the projectile and cartridge case are issued assembled and are loaded into the gun as a unit, the cartridge case is not permanently attached to the projectile but may be removed for the purpose of adjusting the propelling charge (TR 1370-A, par. 28c).

DUTIES OF THE AMMUNITION SQUAD

j. Nos. 8, 9, and 10.—(1) To aid Nos. 5, 6, and 7 in preparing ammunition.

(2) To replace casualties.

8-31. *DUTIES OF THE AMMUNITION SQUAD.*—*a.* To care for all ammunition at the gun position that its not in the hands of the howitzer squad.

b. To procure additional ammunition from battery or battalion munitions distributing point.

c. To aid in the organization of the position in any manner directed by the executive officer.

d. To be under command of the ammunition petty officer (second class) from battery detail, when more than one squad is employed as a unit in replacing ammunition.

e. To replace casualties in the howitzer squad.

8-32. *TO PLACE THE PIECE IN TRAVEL POSITION.*—At the command: **MARCH ORDER**, the gunner traverses the piece to the center of the axle (travel graduation). He then removes the sight and the sight extension bar, and upon receiving the lanyard from No. 1, places them in the sight chest.

After handing the lanyard to the gunner, No. 1 depresses the muzzle to the correct position for travel.

No. 6 replaces the cover on the muzzle.

No. 1 removes seats and places them to the right of the piece.

No. 5 inserts a lifting bar in the forward position on the tube and with No. 6 bears down while No. 7 unlocks the rear trail, and Nos. 2 and 4 remove the rear trail and replace drawbar.

No. 3 unlatches the rocker hooks.

Nos. 1 and 3 insert lifting bars in the upper sleigh and breech, No. 1 to the rear, and with Nos. 2, 4, 5, and 6 remove the tube and recoil assembly to the front and place it on the ground, No. 7 lifting the drawbar to aid the operation.

Nos. 1, 2, 4, and 7 change the wheels and axle to the travel position, No. 1 handling the right wheel and axle housing lock, No. 4 the left wheel; Nos. 2 and 7, from a position in rear of the axle, lift the front trail and rocker assembly. No. 4 secures the thong to the traversing handwheel.

No. 7 again lifts the drawbar while Nos. 1, 2, 3, 4, 5, and 6 lift the tube and recoil assembly and place it on the front trail in the travel position.

75-MM PACK-HOWITZER SECTION

The lifting bars are removed by Nos. 1, 3, and 5 and placed in the carrier, No. 1 stowing them and the hand spike.

The gunner assisted by No. 7 places the sight and tool chests on the carriage.

Nos. 2 and 4 place the rear trail on the tube.

Nos. 3 and 5 place lifting bar bag on the rear trail.

No. 7 places seats between the rear trail and the tube.

No. 1 places cincha in position and aids the gunner who secures it.

Nos. 5 and 6 place cart in position; Nos. 3, 4, 5, and 6 securing fuze setter, paulin, etc.

Nos. 3 and 4 limber howitzer to cart if it is to be limbered. The gun captain supervises the entire procedure. In case there are only six men present, he will also perform the duties of No. 7.

Nos. 8, 9, and 10, if present, secure the aiming stakes, the cart paulin, and the fuze setter, and place the cart in position to couple, if it is to be coupled.

8-33. *LOADING BOAT*.—The howitzer is loaded into the boat in the travel position and dismounted as soon as sufficient personnel is aboard. See figure 7, for convenient positions for matériel and men. A buoy or small block of wood should be attached with about eight feet of line to each part to denote its location in case it is dropped in the surf in unloading. The accessories should be securely tied in one bundle and lashed to the rear trail. No boat smaller than a standard Navy 36-foot motor launch has the capacity for moving an entire howitzer section.

8-34. *UNLOADING BOAT*.—*a*. In unloading, the table shown in figure 8 has been found satisfactory and is herewith furnished as a guide. This table indicates the individual tasks for a howitzer section at full strength. The ammunition petty officer remains in the boat and is responsible for the proper sequence of parts carried ashore. He supervises and aids carriers in handling and, when necessary, changes task assignments to meet conditions, particularly those caused by casualties. It will be noted that certain men unload a certain part from the boat, then carry some other load ashore. Because of surf, all parts may have to be unloaded from one side of the boat.

b. As the loads are carried ashore, the gunner supervises placing the howitzer in either travel position or firing position as ordered.

LOADING BOAT

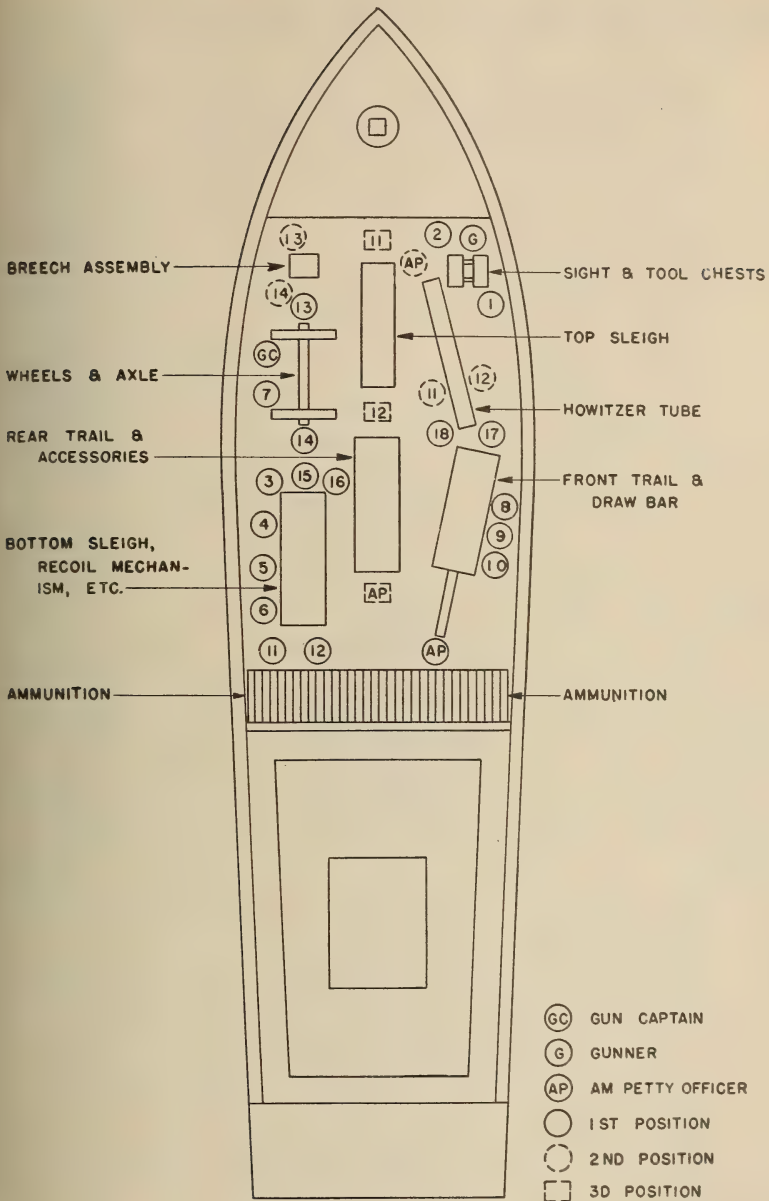


FIGURE 7.—Loading diagram. Showing the 75-mm pack howitzer loaded in a 50-foot motor launch.

75-MM PACK-HOWITZER PLATOON

LOAD NO	LOAD	PASSED FROM BOAT TO CARRIERS BY	SIDE OF BOAT	CARRIED ASHORE BY	WEIGHT POUNDS	REMARKS
1	SIGHT & TOOL CHEST HANDSPIKE, AND GUNNER'S QUADRANT	1 & 2	STBD	GUNNER	78	AS SOON AS BOAT IS BEACHED, GUN CAPTAIN, GUNNER, AND 3 TO 10 INCL. JUMP OVERBOARD, FOLLOWED BY 1 & 2 AS SOON AS THE FIRST LOAD IS PASSED OVER THE SIDE. THE GUN CAPTAIN AIDS IN GET- TING WHEELS ASHORE AND THEN DIRECTS 7 TO PUSH THE WHEELS AND FOLLOW HIM.
2	WHEELS AND AXLE	13 & 14	PORT	GUN CAPT & 7	162	
3	FRONT TRAIL AND DRAW BAR	AM PO 17 & 18	STBD	8 TO 10	280	
4	BOTTOM SLEIGH, CRADLE AND RECOIL ASSEMBLY	11 & 12 15 & 16	PORT	3 TO 6	333	
5	BREECH ASSEMBLY	13 & 14	PORT	1 & 2	125	
6	HOWITZER TUBE	AM PO 11 & 12	STBD	15 TO 18	236	
7	TOP SLEIGH	11 & 12	PORT	13 & 14	121	
8	REAR TRAIL AND ACCESSORIES	AM PO 11 & 12	PORT	11 & 12	150	11 & 12 AID AM PO IN PLACING THE REAR TRAIL ON GUNWALE AND THEN JUMP OVERBOARD TO RECEIVE IT.
9	300 ROUNDS OF AMMUNITION	AM PO & CARRIERS	BOTH	8 TO 18	4 RDS APPROX 60	THE AMMUNITION SQUAD AND ALL MEMBERS OF THE HOWITZER SQUAD THAT CAN BE SPARED AT GUN POSI- TION ARE SENT BACK TO MANHANDLE AMMUNITION TO THE GUN POSITION.

FIGURE 8.—Unloading table. Showing sequence and method of unloading the 75-mm pack howitzer from a motor launch.

LANDING-FORCE MANUAL

UNITED STATES NAVY

1938



CHAPTER 9

THE INFANTRY PACK, AND DISPLAY OF EQUIPMENT AND CLOTHING

(Reprinted 1941 with all changes up to and including No. 5)



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FOREWORD

The Landing-Force Manual, U. S. Navy, 1938, is published in nineteen chapters as follows:

- CHAPTER 1. INTRODUCTION.
- CHAPTER 2. INDIVIDUAL INSTRUCTION WITHOUT ARMS AND WITH ARMS (RIFLE, AUTOMATIC RIFLE, SUBMACHINE GUN, PISTOL, AND BAYONET).
- CHAPTER 3. DRILL, THE SQUAD, PLATOON, AND COMPANY.
- CHAPTER 4. FORMATIONS OF THE BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 5. CART DRILL.
- CHAPTER 6. DRILL, MACHINE GUN, CALIBER .30.
- CHAPTER 7. DRILL, THE SPECIAL-WEAPONS PLATOON (37-MM GUN AND 81-MM MORTAR).
- CHAPTER 8. DRILL, ARTILLERY.
- CHAPTER 9. THE INFANTRY PACK, AND DISPLAY OF EQUIPMENT AND CLOTHING.
- CHAPTER 10. CEREMONIES; AND MANUAL OF THE COLOR, SWORD, AND GUIDON.
- CHAPTER 11. INTERIOR GUARD DUTY AND GUARD MOUNTING.
- CHAPTER 12. MARCHES, SECURITY ON THE MARCH, AND OUTPOSTS.
- CHAPTER 13. TENT DRILL AND SHELTER.
- CHAPTER 14. FIELD SANITATION, PERSONAL HYGIENE, AND FIRST AID.
- CHAPTER 15. EXTENDED-ORDER EXERCISES, COMBAT PRINCIPLES OF THE RIFLE SQUAD AND PLATOON, AND COMBAT SIGNALS.
- CHAPTER 16. TACTICS AND TECHNIQUE OF THE RIFLE COMPANY AND INFANTRY BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 17. THE DEFENSE AND ATTACK OF CITIES, RIOT DUTY, AND NATIONAL DISASTERS.
- CHAPTER 18. PHYSICAL DRILL.
- CHAPTER 19. SMALL ARMS MARKSMANSHIP.

LANDING-FORCE MANUAL

UNITED STATES NAVY

CHAPTER 9

THE INFANTRY PACK, AND DISPLAY OF EQUIPMENT AND CLOTHING

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SECTION I

INDIVIDUAL EQUIPMENT

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Officers	9-3	4
Medical personnel	9-4	5

9-1. *CLOTHING AND EQUIPMENT, RIFLE SQUAD.—a. Light marching order.*—The various members of the rifle squad normally carry the articles of equipment as shown in table 1.

TABLE 1.—*Clothing and individual equipment, rifle squad*
LIGHT MARCHING ORDER

Item	Number in squad							
	2	6	5	1	3	17	4	8
BANDOLEER, B. A. R.			1					
BANDOLEERS, B. A. R., extra ²								
BAYONET, with scabbard	1	1	1	1	1	³ 1		1
BELT, cartridge, rifle, M-1910	1	1	1	1	1	³ 1	1	1
BELT, pistol, web, M-1912 (without magazine carrier)						⁴ 1		
CAN, meat ⁵	1	1	1	1	1	1	1	1
CANTEEN, cover and cup, M-1910	1	1	1	1	1	1	1	1
CAP, white; watch (sailor's), or cap, garrison (marine's) ^{6 7 8}	1	1	1	1	1	1	1	1
CARRIER, grenade		⁶ 1						
CARRIER, magazine, type XX (5 cells)	1	1	1	1	1	⁴ 2	1	1
CARRIER, pack, haversack	1	1	1	1	1	1	1	1
CUTTERS, wire, intrenching and carrier		⁶ 1						
DISCHARGER, rifle grenade and carrier			1				1	
FILLER, magazine for B. A. R.	1	1	1	1	1	1	1	1
FORK, haversack ⁵	1	1	1	1	1	⁴ 1	1	1
GUNS, Thompson submachine, caliber .45, M-1928								
HAVERSACK	1	1	1	1	1	1	1	1
HELMET, steel ⁶	1	1	1	1	1	1	1	1
KITS, spare part, for TSMG, complete						⁴ 1		
KIT, toilet; with tooth brush, razor, comb, dentifrice, shaving cream, mirror, soap, soap box, towel, sewing kit, extra pair of leggings and shoe laces, and, if used, shaving brush, hair brush, matches and tobacco ⁹	1	1	1	1	1	1	1	1
KNIFE, haversack ⁵	1	1	1	1	1	1	1	1
MACHETE, intrenching, with scabbard	1			1				
MAGAZINE, box type XX, 20 cartridges	1					⁴ 6 9		
MAGAZINES, for B. A. R.			⁶				9	
MAGAZINES, for B. A. R., extra ²								
MASK, gas ⁶	1	1	1	1	1	1	1	1
MATTOCK, pick, intrenching, with carrier	1	1	1					
OVERCOAT ⁷	1	1	1	1	1	1	1	1
PACKAGE, first aid, with pouch	1	1	1	1	1	1	1	1
PONCHO, rubber	1	1	1	1	1	1	1	1
POUCH, meat can, haversack	1	1	1	1	1	1	1	1
RATION, cooked ^{7 9}	1	1	1	1	1	1	1	1
RATION, reserve ^{6 9}	1	1	1	1	1	1	1	1
RIFLE, automatic, caliber .30, Browning M-1918; cover, front sight; brush, chamber clean case, accessories and spare parts; brush and thong; gun sling; parts, spare, field; belt, magazine							1	
RIFLE, U. S. caliber .30, M-1903, with brush and thong, cover front sight, case, oiler and thong, sling rifle	1	1	1	1	1	³ 1		1
SHOVEL, intrenching and carrier						1	1	1
SLING, gun, web, M-1903, rifle						⁴ 6 1		
SOCKS, pairs ⁹	1	1	1	1	1	1	1	1
SPOON, haversack ⁵	1	1	1	1	1	1	1	1
TAG, identification, with tape	1	1	1	1	1	1	1	1

See footnotes at end of table.

INDIVIDUAL EQUIPMENT

TABLE 1.—*Clothing and individual equipment, rifle squad—Continued*
HEAVY MARCHING ORDER

Item	Number in squad							
	2	6	5	1	3	7	4	8
All of the above, plus the following:								
BLANKET ⁸ -----	1	1	1	1	1	1	1	1
DRAWERS ⁸ -----	1	1	1	1	1	1	1	1
JUMPER (sailor's) ⁸ -----	1	1	1	1	1	1	1	1
PINS, tent, shelter, round ⁸ -----	5	5	5	5	5	5	5	5
POLES, tent, shelter ⁸ -----	1	1	1	1	1	1	1	1
SHOES, pair ⁸ -----	1	1	1	1	1	1	1	1
SHIRT, cotton or flannel (marine's) ⁸ -----	1	1	1	1	1	1	1	1
SOCKS, pairs ⁸ (total, 2 pairs)-----	1	1	1	1	1	1	1	1
TENT, shelter, half ⁸ -----	1	1	1	1	1	1	1	1
TROUSERS ⁸ -----	1	1	1	1	1	1	1	1
UNDERSHIRTS ⁸ -----	1	1	1	1	1	1	1	1

¹ Thompson submachine gunner when equipped with the TSMG. If the squad leader is so equipped instead of No. 7, omit all items relating to the B. A. R., and substitute those relating to the TSMG.

² As prescribed in orders.

³ Except when armed with TSMG.

⁴ When armed with TSMG.

⁵ Carried in meat can pouch.

⁶ When issued.

⁷ When prescribed by commanding officer.

⁸ Carried in roll.

⁹ Carried in haversack.

b. Heavy marching order.—Heavy marching order includes the clothing and equipment listed in table 1, for light marching order, and the additional articles shown under the heading "Heavy Marching Order" in the same table.

9-2. *SENIOR PETTY OFFICERS.*—All petty officers carry the infantry pack containing the same articles prescribed for members of the squad. Platoon guides are armed with the rifle and bayonet, while other senior petty officers are usually armed with the pistol.

9-3. *OFFICERS.*—a. Field equipment for naval officers includes such of the following articles as are required:

(1) Automatic pistol, .45 caliber, 3 magazines, holster, lanyard, and 21 rounds of ammunition.

(2) Pistol belt, with suspenders and magazine carrier.

(3) First-aid package and pouch.

(4) Canteen, with cover and cup.

(5) Haversack, with mess gear (knife, fork, spoon, meat can, meat-can cover).

(6) Field glasses.

(7) Whistle.

(8) Poncho.

(9) Flashlight, electric.

MEDICAL PERSONNEL

- (10) Wrist watch, with luminous dial.
- (11) Compass, with luminous dial.
- (12) Dispatch case, message book, notebook, black, blue, green, and red pencils.
- (13) Clothing roll.
- (14) Bedding roll.
- (15) Trunk, locker (two for lieutenant commanders and above).
- (16) Identification tags, when prescribed.
- (17) Gas mask, when prescribed.
- (18) Steel helmet, when prescribed.

NOTE.—Officers of the Marine Corps up to and including the rank of colonel are required to have the above articles. (See Marine Corps Manual, Art. 5-42.)

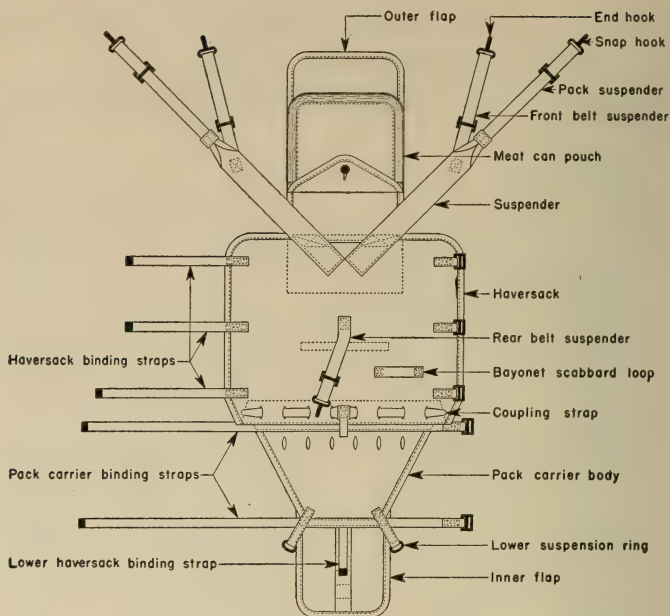
b. When extended operations are contemplated ashore where it is impracticable to carry officer's bedding and clothing rolls, a blanket roll may be made by rolling the blanket (or blanket and poncho) lengthwise, with extra clothing and toilet articles inside, securing it with tie-ties. The roll is placed over the right shoulder, with both ends of the roll secured together under the left arm.

9-4. *MEDICAL PERSONNEL.*—*a.* Normally the medical personnel carry the same equipment as prescribed for line personnel of corresponding rank, except that they do not carry arms.

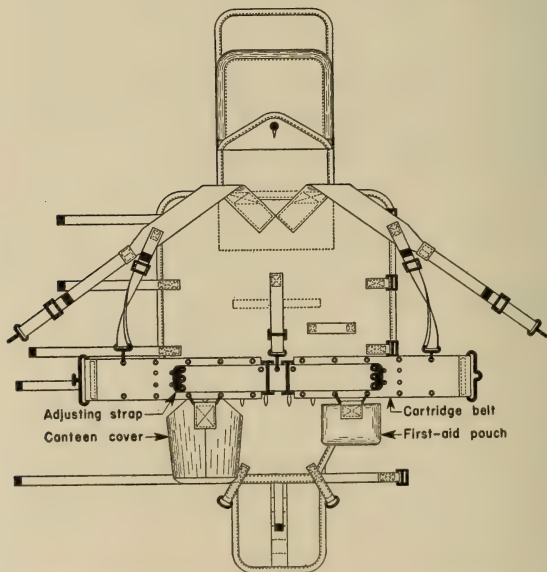
b. In the event the enemy does not comply with "Rules of Land Warfare," it may be necessary to arm the medical personnel.

c. For special equipment for medical personnel see "The Handbook of the Hospital Corps, U. S. Navy."

THE INFANTRY PACK



(A) HAVERSACK AND PACK CARRIER ASSEMBLED



(B) CARTRIDGE BELT ATTACHED TO HAVERSACK

FIGURE 1.—Assembling the pack.

SECTION II

THE INFANTRY PACK

	Par.	Page
To assemble the heavy marching order pack.....	9-5	7
To assemble the heavy marching order roll without the shelter half.....	9-6	12
To assemble the light marching order pack.....	9-7	13
To assemble equipment and special equipment.....	9-8	13

9-5. *TO ASSEMBLE THE HEAVY MARCHING ORDER PACK.*—*a. To assemble the pack carrier to the haversack.*—(1) Spread the haversack on the ground, inside down, suspender side up, outer flap to the front.

(2) Place the buttonholed edge of the pack carrier under the buttonholed edge of the haversack, binding straps of the carrier up, center row of buttonholes of the carrier resting under the corresponding buttonholes of the haversack. The center row of the buttonholes of the pack carrier is suited to a roll of the over-all length of the bayonet; for a longer roll, or when a large package of reserve rations is carried, use the upper row of buttonholes; for a shorter roll, use the lower row of buttonholes.

(3) Lace the carrier to the haversack by passing the ends of the coupling strap down through the corresponding buttonholes of the haversack and carrier nearest the center, passing the ends up through the next buttonholes and continuing to the right and left, to the sides, until they are linked together. (See fig. 1 (A).)

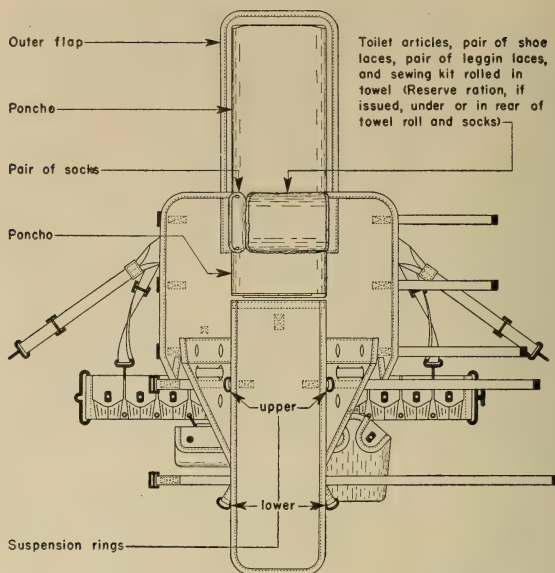
b. To attach the cartridge belt to the assembled pack carrier and haversack.—(1) Spread the pack carrier and haversack on the ground, inside down, suspender side of the haversack up, and place the cartridge belt, adjusted to the man, pockets down, tops to the front, along the junction of the haversack and carrier.

(2) Insert the end hook of rear belt suspender in the eyelet in the top center of the adjusting strap of the cartridge belt, the end of the hook outside of the belt.

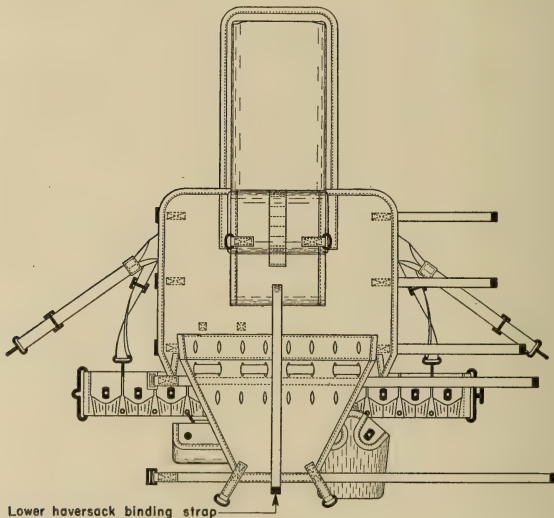
(3) Insert hooks of front belt suspenders in the top eyelets between the first and second or second and third pockets (depending on size of man) from the male and female fasteners. (See fig. 1 (B).)

c. To assemble heavy marching order equipment with toilet articles, poncho, and reserve rations.—(1) Place the assembled pack

THE INFANTRY PACK



(C) PONCHO, TOILET ARTICLES, ETC., ASSEMBLED



(D) INNER FLAP FOLDED OVER TOILET ARTICLES

FIGURE 1.—Assembling the pack.

TO ASSEMBLE THE HEAVY MARCHING ORDER PACK

carrier, haversack, and cartridge belt on the ground, suspender side of the haversack down, pockets of cartridge belt up, haversack spread out, outer flap extended to the front, pack carrier and inner flap extended to their full length to the rear.

(2) The poncho is folded to the width and length of the inner flap and laid on the haversack extending from the top edge of the inner flap to within about one inch of the outer edge of the outer flap.

(3) Toilet articles, one pair of shoe laces, one pair of legging laces, and sewing kit are rolled, towel on the outside, into a neat roll the width of the outer flap and are placed on the poncho at the outer end of the haversack, its forward edge even with the rear end of the outer flap. A pair of socks is placed next to the towel roll so they will be easily accessible on the march. A reserve ration, if issued, will be placed on the poncho and haversack in rear of or under the rolled towel depending on its size. (See fig. 1 (C).)

(4) The inner flap is folded over and forward of the above articles and then back under them (see fig. 1 (D)).

(5) The sides of the haversack are folded over the sides of the assembled towel, reserve ration and rear end of the poncho; the upper binding strap (or the two upper binding straps if the reserve ration as carried extends below the middle strap) is passed through the loop on the inner flap opposite its point of attachment to the haversack body and is fastened to the tongueless bar buckle on the opposite side in such manner that the free end tucks inside the haversack, the strap having been first pulled tight to make the fastening secure (see fig. 1 (E)).

d. To assemble the heavy marching order roll.—(1) Spread the shelter half with guy rope attached on the ground with tie-ties up, triangular end away from the man. Lay tie-ties and guy rope across shelter half and fold triangular end over toward the man, making it a rectangle.

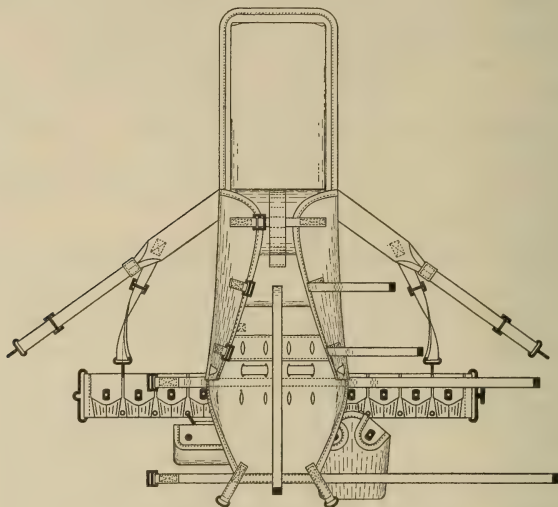
(2) Spread blanket on shelter half, stripes parallel to ridge, with name down and end bearing name on side of ridge. Fold ends of blanket over so they meet in center. This will make a long roll. For a short roll, the blanket ends should overlap, the extreme overlap being 8 inches. Move blanket so that edge rests on ridge, which leaves from 18 to 26 inches of tent exposed at bottom of tent, front edge of blanket as displayed coinciding with rear edge of shelter half.

(3) Standing at the front end of the tent, ridge on the right, place the clothing in the following order on the left half of the blanket and about 1 foot from the front edge of the tent.

THE INFANTRY PACK

(4) One pair of trousers and one jumper (shirt) side by side, jumper (shirt) on the right. On top of the trousers place one pair of drawers; on the top of the shirt place one undershirt. Across the clothing place one pair of socks. For the Navy a white cap and watch cap are added and form the outer layer.

(5) The width of the clothing will be the width of the fold of the blanket. Between the clothing and front edge of tent and close to clothing, place one pair of shoes, sole of left shoe down, sole of right shoe up, toes overlapping, tops of shoes turned back. Shelter-tent pole is placed on blanket at other end of and close to clothing. Shelter-



(E) HAVERSACK SIDES FOLDED OVER TOILET ARTICLES

FIGURE 1.—Assembling the pack.

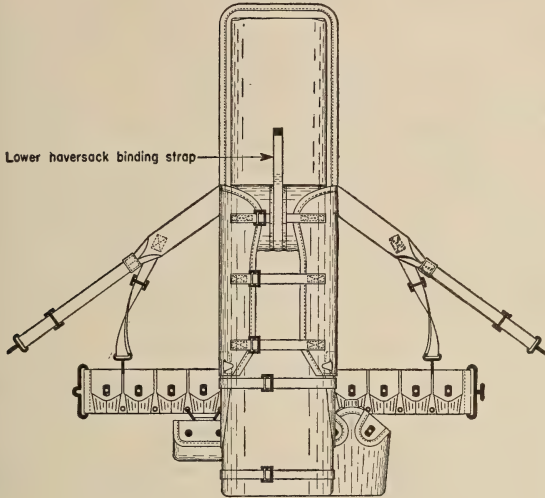
tent pins are placed inside shoes, three in the right shoe and two in the left.

(6) Fold end of blanket at front of tent over shoes. Then fold right half of blanket over left half, covering clothing. Then take end of blanket farthest from clothing and fold it over to the shelter-tent pole. Fold bottom edge of tent over blanket, then fold ridge over this. Fold over about 1 foot of end of tent farthest from clothing to form a pocket. Beginning at front edge roll compactly into this pocket.

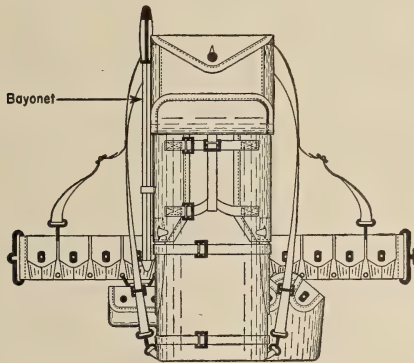
e. To assemble the roll to the pack carrier.—(1) Lay the lower haversack binding strap forward on the haversack, place the roll in the pack carrier and grasp the lower suspension rings at the base of

TO ASSEMBLE THE HEAVY MARCHING ORDER PACK

the pack carrier, one in each hand; place one knee against the bottom of the roll; pull the carrier down and force the roll up close against the bottom of the packed haversack; without removing the knee, pass the lower pack carrier binding strap over the roll and up



(F) ROLL ASSEMBLED TO PACK CARRIER



(G) PACK ASSEMBLED

FIGURE 1.—Assembling the pack.

through the nearer aperture of the tongueless bar buckle and down through the further aperture, pull tight and tuck away the free end; pass and secure in similar manner the upper pack carrier binding strap, and then the remaining binding straps (see fig. 1 (F)).

THE INFANTRY PACK

(2) Engage the snap hooks on the pack suspenders in the lower suspension rings; fold down outer flap (and end of poncho); pass the lower haversack binding strap under the bottom or middle one of the three haversack binding straps, then up through the tongueless bar buckle on the inner side of the outer flap (see fig. 1 (G)).

(3) The equipment is now assembled and packed, ready to be adjusted to the man.

f. To discard the roll without removing the equipment from the body.—Men work in pairs, assisting each other. Pull the lower end of the roll away from the man. Grasp the coupling strap at its middle and withdraw first one side and then the other. Loosen those haversack binding straps which are around the roll, pull the roll down and remove it. Unsnap the pack suspenders from the lower suspension rings and snap them into the upper suspension rings on the inner flap. Tighten haversack binding straps, if loose. When the roll has been removed, secure the coupling strap by lacing it through the buttonholes along the upper edge of the carrier.

9-6. *TO ASSEMBLE THE HEAVY MARCHING ORDER ROLL WITHOUT THE SHELTER HALF.*—*a.* The roll is assembled in a similar manner to that prescribed in par. 9-5 *d*, with the following modifications:

(1) Spread blanket on the ground, name down, and end bearing name on the right. Fold top and bottom of the blanket toward each other until they meet in the center, or overlap (if short roll is desired).

(2) Place clothing as described for heavy marching order roll (see par. 9-5 *d*) on the near side of the left flap of the blanket, and about 1 foot from its rear edge. Place the shoes as described for heavy marching order roll next to the clothing and on the near side of the left flap. Fold near side of the blanket over the shoes. Fold right half of the blanket over the left half. Fold far side of the blanket over about 1 foot to form a pocket. Beginning at the clothing end of the roll (near side), roll compactly into the pocket.

b. If it is desired to show name of man on outside of blanket roll as a means of identification of the roll, spread blanket on the ground, name down and end bearing name, to the front. Lay clothing as described for heavy marching order, except that center line of clothing is on center line of blanket. Place shoes in rear of clothing. Fold near end of blanket over shoes. Fold right side of blanket over clothing. Fold left side of blanket on top of right side. Fold far end of blanket over about 1 foot to form a pocket.

TO ASSEMBLE THE LIGHT MARCHING ORDER PACK

Beginning at the clothing end of the roll (near end), roll compactly into the pocket. Place roll in pack so the name will be exposed and with top of letters to right.

9-7. *TO ASSEMBLE THE LIGHT MARCHING ORDER PACK.*—(1) Attach the cartridge belt to the haversack and pack carrier as prescribed in par. 9-5 *b*.

(2) Roll the pack carrier, with binding straps inside, up over lower edge of haversack. Place and secure in the haversack: The towel, rolled with one pair of socks and toilet articles; the poncho and reserve ration, when issued, as prescribed in par. 9-5 *c*, and secure, in addition, the bottom haversack binding strap. Fold the outer flap over and secure it by means of the lower haversack binding strap and the buckle on its under side. Engage the snap hooks on the ends of the pack suspenders with the upper suspension rings on inner flap.

9-8. *TO ASSEMBLE EQUIPMENT AND SPECIAL EQUIPMENT.*—*a*. Equipment will be worn or carried as prescribed below (see fig. 2):

(1) *Bayonet scabbard.*—(*a*) To the haversack: Attach the scabbard to haversack in the eyelets and loop provided. Place the bayonet in the scabbard, ring to rear.

(*b*) To the cartridge belt: When haversack is not carried, attach the scabbard under the third pocket from the front of the left section of the cartridge belt. To do this, remove first-aid pouch from under the fourth pocket and attach it under the fifth pocket of the left section. Place the bayonet in the scabbard ring to the front.

(2) *Canteen cover.*—(*a*) To the cartridge belt: Attach canteen cover to the cartridge belt under the fourth or fifth pocket from the front of the right section of belt.

(*b*) To magazine belt: Worn on right hip.

(*c*) To the pistol belt:

(1) Worn on left hip.

(2) Worn on right hip when Thompson submachine gun is carried.

(3) *First-aid pouch.*—(*a*) To the cartridge belt: When the haversack is carried, attach the first-aid pouch under the fourth or fifth pocket from the front of the left section of the cartridge belt. When the haversack is not carried, attach the first-aid pouch under the fifth (rear) pocket of the left section of the belt. This provides room for the bayonet scabbard when carried on the belt.

THE INFANTRY PACK

(b) To magazine belt: Worn on left hip.

(c) To the pistol belt:

(1) Worn in rear of pistol or Very pistol.

(2) Worn in rear of left hip, when Thompson submachine gun is carried.

(4) *Intrenching-tool carrier*.—Attach the intrenching-tool carrier to the intrenching-tool attachment. Place the intrenching tool in its carrier and secure it by means provided on the carrier. Secure the intrenching tool to the pack by means of a haversack binding strap.

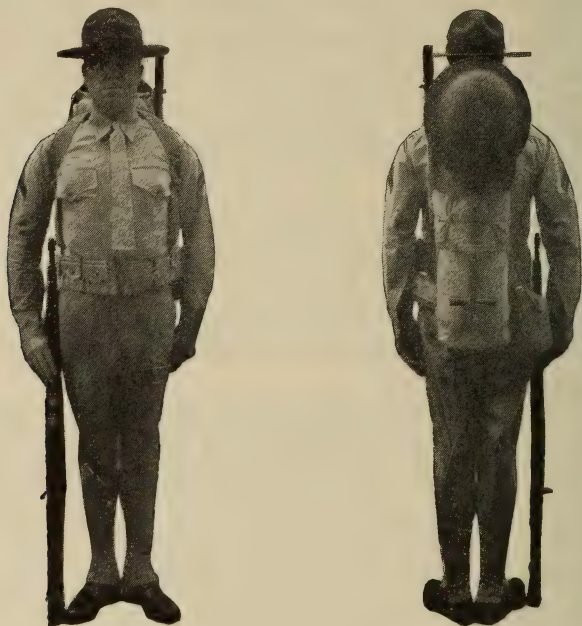


FIGURE 2.—Heavy marching order equipment assembled.

(5) *Helmet*.—(a) To the haversack: Attach the helmet by placing the strap over the meat-can pouch. The strap is then secured by tying it on with a cord (shoe or legging lace).

(b) When worn: The strap is worn around the back of the neck.

(6) *Magazine belt*.—Magazine base plates up, catches toward the buckles of the belt.

(7) *Pistol belt*.—Magazine base plates up, prolonged ends of the magazine base plates toward the right (toward the buckle).

b. Special equipment will be worn or carried as prescribed below:

(1) *Ammunition jacket (carrier)*, *trench mortar*.—On top of all equipment except the gas mask.

TO ASSEMBLE EQUIPMENT AND SPECIAL EQUIPMENT

(2) *Bandoleer, magazine, for Browning automatic rifle (when carried by substitute automatic rifleman).*—Suspended on left side by a strap passed over the right shoulder.

(3) *Bandoleer, magazine, for Browning automatic rifle (extra).*—Suspended on either side by a strap passed over the opposite shoulder.

(4) *Brassards.*—Worn on left arm.

(5) *Carriers, magazine, type XX, Thompson submachine gun.*—On pistol belt in front, one carrier at left of buckle, one carrier at right of buckle.

(6) *Case, dispatch.*—Suspended on the right side by a strap passed over the left shoulder.

(7) *Clinometer, trench mortar.*—Suspended on the left side by a strap passed over the right shoulder.

(8) *Clinometer, machine gun.*—On the belt in front of the pistol.

(9) *Compass, case.*—On the belt in front of the pistol.

(10) *Compass, pocket.*—Carried in breast pocket.

(11) *Cutter, wire, small.*—Attached to the left side of the belt in front of the first-aid pouch.

(12) *Discharger, rifle grenade.*—On the belt in front of the first-aid pouch.

(13) *Gas mask.*—Worn under the left arm and over all other equipment, suspended by a strap passed over the right shoulder.

(14) *Glasses, field.*—On the left side, suspended from the belt or by a strap passed over the right shoulder.

(15) *Haversack, officer's type, with strap.*—Suspended on the left side by a strap over the right shoulder (officers).

(16) *Haversack, officer's type.*—Suspended from pistol belt in front of canteen (chief petty officers or petty officers).

(17) *Instrument, angle of site.*—On the right side, suspended by a strap passed over the left shoulder.

(18) *Kit, flag, combination.*—On the right side, suspended by a strap passed over the left shoulder. Worn over all equipment except the gas mask.

(19) *Kit, spare part complete, Thompson submachine gun.*—Rear pocket of carrier, on the left side.

(20) *Lanyard, pistol.*—(a) Without shoulder strap: Worn over left shoulder and under right arm.

(b) With shoulder strap: Around right shoulder and under shoulder strap.

(21) *Machete, with carrier.*—As prescribed for intrenching tools.

THE INFANTRY PACK

(22) *Pick, mattock, with carrier.*—As prescribed for intrenching tools.

(23) *Pistol and holster.*—On the right hip.

(24) *Pistol, Very, with holster.*—Same as the pistol. When worn together, the Very pistol is worn in rear of the pistol.

(25) *Sight, quadrant, for 37-millimeter gun.*—On the left side, suspended by a strap passed over right shoulder.

(26) *Sight, telescopic, for 37-millimeter gun.*—On the left side, suspended by a strap passed over the right shoulder.

(27) *Sight, telescopic, rifle.*—On right side, suspended by a strap passed over the left shoulder.

(28) *Suspenders, cartridge belt, pistol.*—Worn by Thompson sub-machine gunner except when pack is carried.

(29) *Trumpet.*—Suspended on left side by sling passed over the right shoulder.

(30) *Whistle.*—Carried in left breast pocket.

Appropriate adjustments in placing of or wearing of equipment on belt will be made to suit the measure of waist or conformation of the man.

SECTION III

DISPLAY OF EQUIPMENT

	Par.	Page
Examination of equipment in ranks.....	9-9	17
Examination of equipment on the bunk.....	9-10	21

9-9. *EXAMINATION OF EQUIPMENT IN RANKS* (see figs. 3, 4, and 5).—*a.* When equipment is to be inspected in ranks the commander causes his unit to prepare for inspection and the inspection is conducted as prescribed in Chapter 3, paragraph 3-47.

b. Deleted.

c. At the command, **DISPLAY EQUIPMENT**, pack carriers are unstrapped, rolls removed and unrolled, the longer edge of the rolls along the lower edge of the pack carriers.

d. Each man then detaches the pack suspenders from lower suspension rings and rolls up pack carrier until coupling strap is exposed and on line with upper edge of belt.

e. Each man unfolds his shelter half and blanket so as to expose the contents of roll.

f. He then places rear end (actual) of shelter half, with blanket on top and at right, to meet lower edge of belt, center line of belt corresponding with center line of blanket, carriers which are suspended from belt showing on top of blanket. Guy rope, attached to shelter half, exposed at left front corner of shelter half.

g. (1) He then removes:

(*a*) Meat can and cover; knife, fork, and spoon from the meat-can pouch, and lays outer flap over to front.

(*b*) Canteen and canteen cup from the canteen cover.

(*c*) First-aid package from first-aid pouch.

(*d*) Bayonet from bayonet scabbard.

(*e*) Intrenching tool from carrier.

(*f*) Other special equipment from carriers.

(2) Pouches, carriers, suspenders, etc., carried or worn on belt or haversack are not detached.

h. He then places clothing and equipment on the left half of blanket commencing in the following order from the rear:

(1) One pair of shoes, left sole down, right sole up; right shoe on the right, toes overlapping. Tops of both shoes turned back to show name.

DISPLAY OF EQUIPMENT

(2) Trousers and shirt, side by side, single fold to the front, shirt on the right.

(3) Drawers on top of trousers and undershirt on top of shirt. Underwear showing single fold to the front.

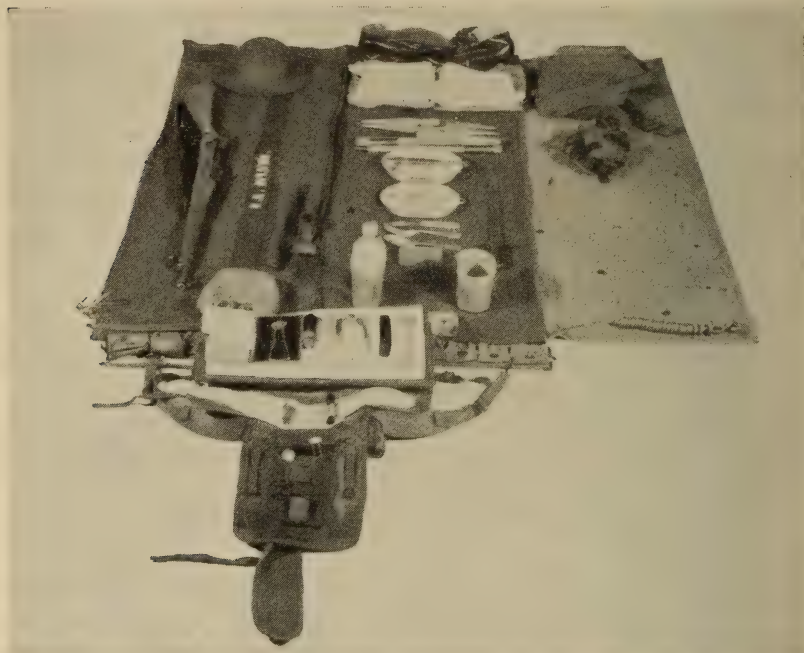


FIGURE 3.—Heavy marching order pack displayed for inspection.

- (4) One pair of socks across clothing, heel to front, toes to left.
- (5) Shelter-tent pins, heads overlapping, three to left, two to right.
- (6) Shelter-tent pole, folded with pin to right.
- (7) Meat can, with handle closed, hinge to left.
- (8) Meat-can cover, ring to left.
- (9) Knife, fork, and spoon, handles to left, edge of knife toward fork.
- (10) First-aid package, ring up and to the front (exposing seal).
- (11) Canteen cup, to left of center, canteen to right of center (concave curves to the right).
- (12) Bayonet, 2 inches from and parallel to left edge of blanket, ring to left, top of hilt on line with front edge of first-aid package.

EXAMINATION OF EQUIPMENT IN RANKS

(13) Rifle, 2 inches from and parallel to right edge of blanket, barrel to the left, muzzle to the front.

(14) Other equipment placed as shown in figures 3, 4, and 5, or as designated.

i. He then opens haversack and removes articles.

j. He then makes three folds of the inner flap, thus bringing suspension rings in line with upper edge of belt (lower third of flap folded inside).

k. He then places:

(1) Folded poncho on inner flap with longer edge of poncho on line with lower edge of belt, single fold to front.

(2) Towel folded to same dimensions and on top of poncho.

(3) Toilet articles on towel as shown in figures 3, 4, and 5.

(4) One pair of socks on haversack, in front of poncho, heels to the front, toes to left.

(5) Extra pair of legging laces and shoe laces on top of and in center of socks.

(6) Sewing kit in center of outer flap.

l. He then assumes the position of attention, toes twelve inches from edge of blanket, directly in rear of clothing.

m. The positions of the articles not shown in figures 3, 4, and 5 are stated below:

(1) *Ammunition jacket (carrier), trench mortar.*—On shelter half, opposite canteen cup, lower edge of jacket at left edge of shelter half.

(2) *Brassards.*—On shelter half, opposite canteen cup, edge of buckle at left edge of shelter half.

(3) *Cap, garrison, white cap or watch cap.*—In same position as the helmet. Left side of cap on top, front of cap toward right.

(4) *Case, dispatch.*—In center of shelter half, opposite canteen cup, lower edge toward inspecting officer. Flap open to show pencils. Message book on flap.

(5) *Filler, magazine, for BAR.*—On blanket in front of magazines, lips of filler toward front.

(6) *Kit, flag.*—In center of shelter half, lower ends of staffs toward front, carrier on left of flags.

(7) *Kit, spare part.*—On blanket, to rear of magazines.

(8) *Magazines, BAR and TSMG.*—In same relative positions as magazines for pistol.

(9) *Mask, gas, and carrier.*—Carrier on shelter half, opposite the helmet, under side down, flap open, and to front. Mask to front of carrier.

DISPLAY OF EQUIPMENT

- (10) *Overcoat*.—On left edge of shelter half, neck of overcoat at rear edge. Overcoat not unrolled.
- (11) *Ration, reserve*.—On front of outer flap of haversack.
- (12) *Tags, identification*.—On body, but exposed for inspection.
- (13) *Trumpet, with sling*.—On blanket at rear of pistol, mouth-piece to rear, slide toward right.

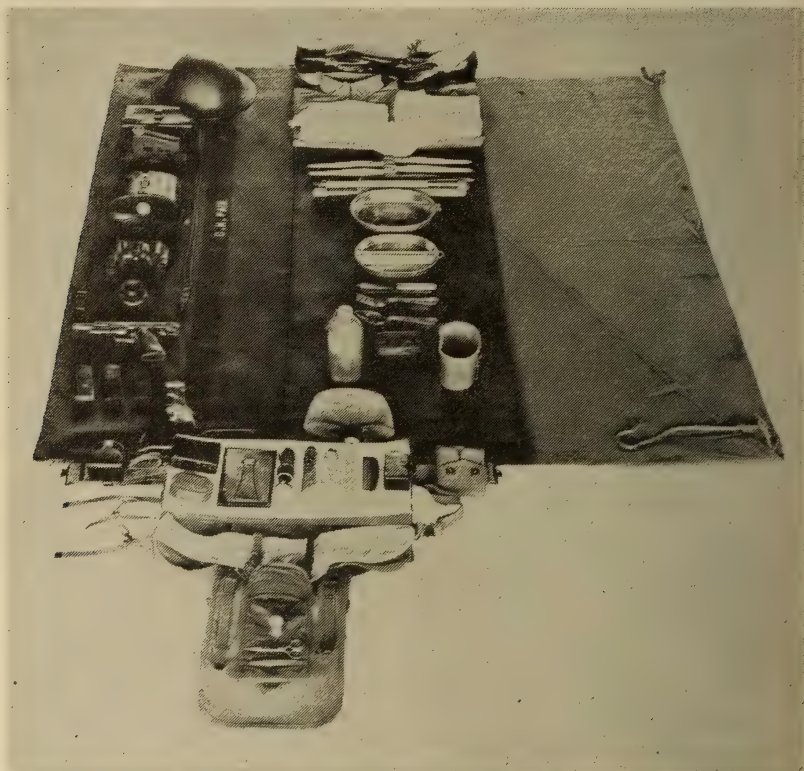


FIGURE 4.—Heavy marching order pack displayed for inspection, showing pistol, lanyard, whistle, compass, field glasses, and angle of site instrument.

- (14) *Very pistol*.—On blanket at rear of pistol, in the same relative position.
 - (15) *Clinometers, sights, etc.*—In same relative position as shown for instrument, angle of site, in figure 4.
 - (16) *Grenade carrier*.—On shelter half, opposite canteen cup, lower edge of carrier at left edge of shelter half.
- n. The inspection is conducted as prescribed in Chapter 3.

EXAMINATION OF EQUIPMENT ON THE BUNK

9-10. *EXAMINATION OF EQUIPMENT ON THE BUNK.*—

When it is desired to inspect the equipment on the bunk, the bunk is made down, so that the stenciled name on the blanket is exposed along the center of the foot edge of the bed. The equipment is then laid out as follows (see fig. 6) :

NOTE.—The right side of the bunk is the right side when standing at the head of the bunk, facing the foot.

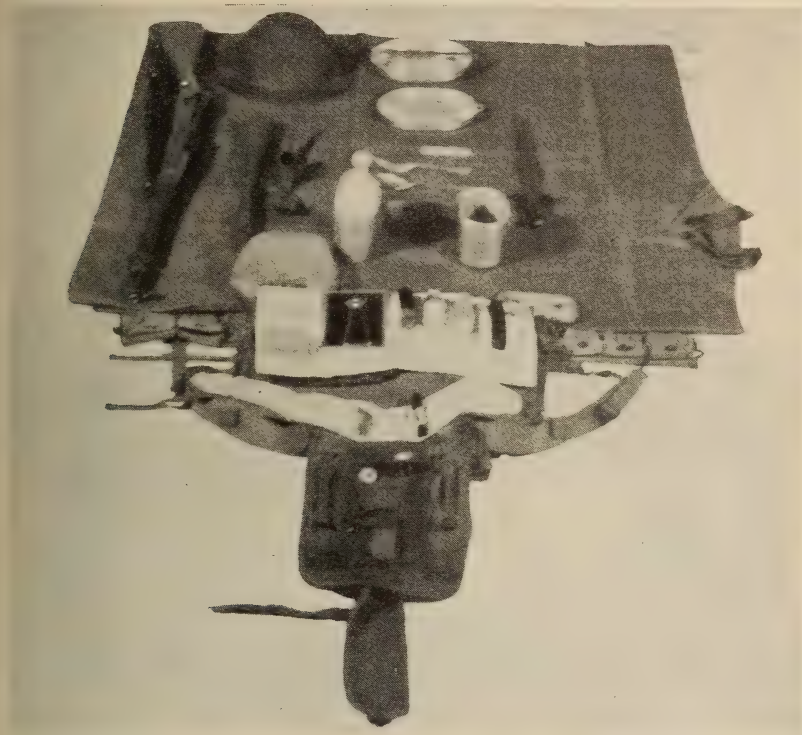


FIGURE 5.—Light marching order pack displayed for inspection.

a. The haversack is placed across the foot of the bunk, suspender side of haversack down; top of haversack even with the foot of the bunk; outer flap with meat-can pouch folded over and toward the head of the bunk; pack carrier, with pack carrier binding straps inside, folded down and under the haversack. Pouches and carriers carried or worn on the belt are not detached. The cartridge belt, pack suspenders, and haversack binding straps are extended perpendicular to and to the edges of the bunk.

DISPLAY OF EQUIPMENT

b. The shelter half and poncho are folded to the width and length of the inner flap of the haversack. The shelter half is placed across the belt and haversack, single fold toward the foot of the bunk, and against the bottom of the meat-can pouch so that about $2\frac{1}{2}$ pockets of the belt are exposed on each side. The poncho is placed on top of the shelter half, single fold toward the foot of the bunk.

c. The shelter-tent pins, shelter-tent pole, meat can, meat-can cover, knife, fork, spoon, and first-aid package are placed on the bunk in the order named from head to foot between the pillow and the haversack, centered along the middle of the bunk, and as prescribed in par. 9-9 *h* (5) to (10) inclusive.

d. The canteen, canteen cup, and bayonet are placed on the bunk as prescribed in par. 9-9 *h* (11) and (12).

e. Articles normally carried in the heavy marching-order roll are not displayed on the bunk with the equipment.

f. The toilet articles and ration may be displayed on top of the poncho.

g. Special equipment is laid on the right side of the bunk as prescribed in par. 9-9 *m* (1) to (15) inclusive, making allowance for the restricted space and absence of shelter half.

h. The man stands at attention at the right side of the head of the bunk.

EXAMINATION OF EQUIPMENT ON THE BUNK

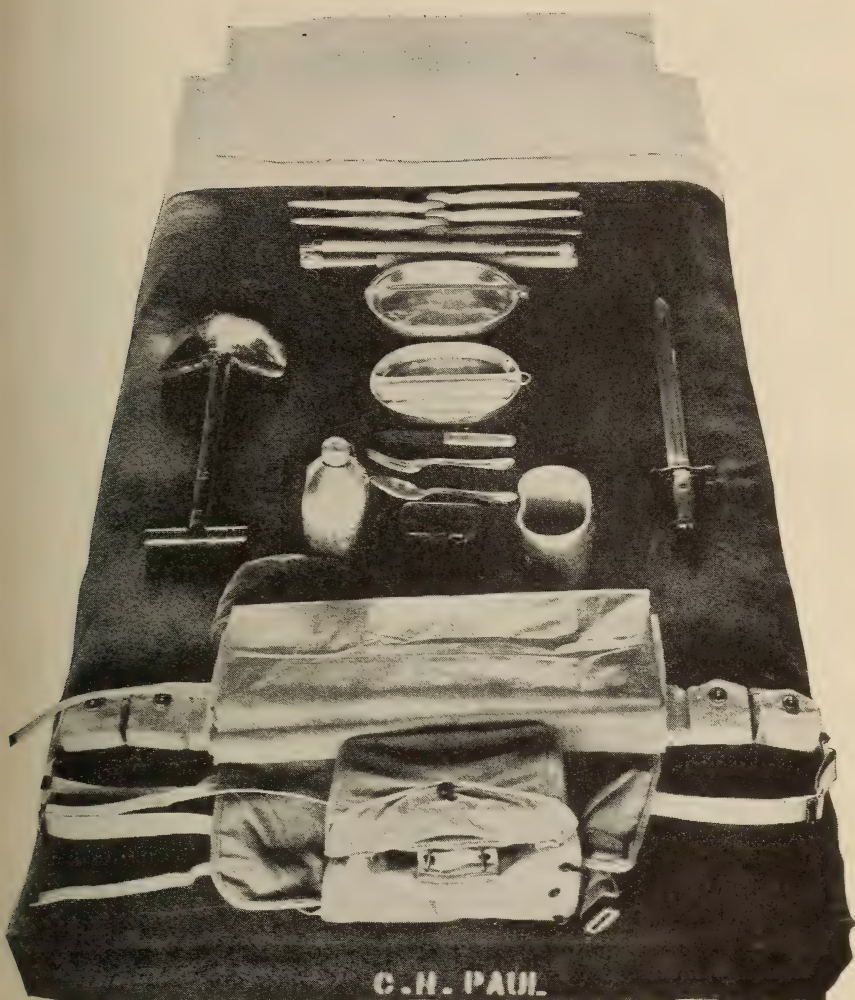


FIGURE 6.—Equipment displayed on bunk for inspection.

SECTION IV

DISPLAY OF CLOTHING ON THE BUNK (MARINE CORPS)

	Par.	Page
Display of clothing on the bunk (Marine Corps)-----	9-11	25

9-11. *DISPLAY OF CLOTHING ON BUNK (MARINE CORPS)*.—When it is desired to inspect clothing on the bunk, the bunk is made down so that the stenciled name on the blanket is exposed along the center of the foot edge of the bed. The clothing is then laid out as follows (see fig. 7) :

a. The following articles are arranged on the part of the pillow towards the foot of the bunk in the following order from right to left :

Cap frame.—On its right side, visor to the right, right side of sweatband turned down exposing name.

Cap, garrison, winter service.—On its right side, with left lower edge turned back exposing the name in center of lining on right side.

Cap, garrison, summer service.—Same as cap, garrison, winter service.

b. The cap covers and field hat are arranged nearly vertical against the bunk head piece in the following order from right to left :

Covers, cap.—Insides to the front, exposing names.

Hat, field.—On its right side, inside to the front, right side of sweatband turned down exposing name.

c. The following articles are folded so that, when displayed, the name, stenciled as prescribed in Art. 15-25, Marine Corps Manual, will be legible from the foot of the bunk. They are arranged, each article overlapping the one previously listed, from the edge of the pillow toward the foot of the bunk as follows :

(1) *On the right side of the bunk*.—

Shirt.

Undershirts.

Scarfs.

Gloves, woolen and cotton.

(2) *In the center of the bunk*.—

Overcoat.

Coat, dress.

Coats, service, winter.

DISPLAY OF CLOTHING ON THE BUNK (MARINE CORPS)



FIGURE 7.—Display of clothing on the bunk (Marine Corps).

NOTE.—This figure indicates the relative positions of all items of clothing, not the quantity. Each man will display all items of clothing in his possession.

DISPLAY OF CLOTHING ON BUNK

Leggings with an extra pair of shoe laces, legging laces, and marking outfit (stencil, etc.) on top.

(3) *On the left side of the bunk.*—

Trousers, dress.

Trousers, service, winter.

Trousers, service, summer.

Drawers, knee.

Socks.

d. The following articles are extended full length across the bunk below the articles listed in subpar. c above and placed, buckles to the right, under side up with name legible from the foot of the bunk in the following order from head to foot:

Belt, dress.

Belt, service.

Belt, trouser, woven.

e. One pair of shoes, partially laced with ends of laces tucked inside of shoes, is displayed in the center of the bunk at the foot, left sole down, right sole up; right shoe on the right; toes overlapping; tops of both shoes turned back to expose the name. Extra shoes with laces attached and folded in are placed under the bunk on the deck, toes to the foot and on line with the legs of the foot piece.

f. Box, clothing, barrack (if issued) is placed at the foot of the bunk, lid open, tray partially laid back, and contents neatly arranged. All articles of clothing are removed therefrom and displayed on the bunk.

g. Locker, steel (if issued) is opened with contents neatly arranged. All articles of clothing are removed therefrom and displayed on the bunk.

h. Bunk card holder (if issued) is suspended over the center of the top rail of the foot piece, properly filled out with the man's name, rank, and rifle number.

i. The man stands at attention at the right side of the bunk at its head.



LANDING-FORCE MANUAL

UNITED STATES NAVY

1938



CHAPTER 10

CEREMONIES; AND MANUAL OF THE COLOR, SWORD, AND GUIDON

(Reprinted 1941 to include all changes up to and including No. 5)



UNITED STATES
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FOREWORD

The Landing-Force Manual, U. S. Navy, 1938, is published in nineteen chapters, as follows:

- CHAPTER 1. INTRODUCTION.
- CHAPTER 2. INDIVIDUAL INSTRUCTION WITHOUT ARMS AND WITH ARMS (RIFLE, AUTOMATIC RIFLE, SUBMACHINE GUN, PISTOL, AND BAYONET).
- CHAPTER 3. DRILL, THE SQUAD, PLATOON, AND COMPANY.
- CHAPTER 4. FORMATIONS OF THE BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 5. CART DRILL.
- CHAPTER 6. DRILL, MACHINE GUN, CALIBER .30.
- CHAPTER 7. DRILL, THE SPECIAL-WEAPONS PLATOON (37-MM GUN AND 81-MM MORTAR).
- CHAPTER 8. DRILL, ARTILLERY.
- CHAPTER 9. THE INFANTRY PACK, AND DISPLAY OF EQUIPMENT AND CLOTHING.
- CHAPTER 10. CEREMONIES; AND MANUAL OF THE COLOR, SWORD, AND GUIDON.
- CHAPTER 11. INTERIOR GUARD DUTY AND GUARD MOUNTING.
- CHAPTER 12. MARCHES, SECURITY ON THE MARCH, AND OUTPOSTS.
- CHAPTER 13. TENT DRILL AND SHELTER.
- CHAPTER 14. FIELD SANITATION, PERSONAL HYGIENE, AND FIRST AID.
- CHAPTER 15. EXTENDED-ORDER EXERCISES, COMBAT PRINCIPLES OF THE RIFLE SQUAD AND PLATOON, AND COMBAT SIGNALS.
- CHAPTER 16. TACTICS AND TECHNIQUE OF THE RIFLE COMPANY AND INFANTRY BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 17. THE DEFENSE AND ATTACK OF CITIES, RIOT DUTY, AND NATIONAL DISASTERS.
- CHAPTER 18. PHYSICAL DRILL.
- CHAPTER 19. SMALL ARMS MARKSMANSHIP.

LANDING-FORCE MANUAL

UNITED STATES NAVY

CHAPTER 10

CEREMONIES; AND MANUAL OF THE COLOR, SWORD, AND GUIDON

NOTES.—(1) Sections I, II, III, V, VI, VII, IX, and XI of this chapter are based on BFM, FM 22-5.

(2) For instructions for bands, see BFM, FM 28-5.

(3) For the ceremony of guard mounting, see chapter 11.

(4) For compliments, salutes, raising and lowering the flag, see chapter 11.

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IV.	STREET PARADES	10-18 to 10-20	19
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SECTION I

GENERAL RULES FOR CEREMONIES

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Place of formation.....	10-3	3
Modification of formations.....	10-4	3
Ships' landing forces.....	10-6	3

10-1. *ARRANGEMENT OF UNITS IN FORMATION.*—*a.* When serving on shore with a mixed detachment, composed of seamen and marines, the marines shall always be placed on the right in battalion or other infantry formation, and the senior officer of the line of the Navy, or of the Marine Corps, according to rank, shall command the detachment. (Art. 150 (10), NR.)

b. The commanding officer of the unit concerned and his staff will actively supervise formations for all ceremonies. They will move to such positions as will best enable them to make corrections.

c. Companies in battalions, battalions in regiments, and special units are formed as prescribed in regulations governing the formations of battalions and regiments.

d. After the command is formed the commander and his staff face it and subordinate commanders and their staffs face to the front.

10-2. *STAFF SALUTES.*—When passing in review and when troops are brought to present arms, the staffs of the various commanders of troops execute the salute with their commanders. At other times only the commander salutes. (See par. 10-7 *b* (3).)

10-3. *PLACE OF FORMATION.*—*a.* At *assembly* for a ceremony, companies are formed and inspected on their own parades.

b. At *adjutant's call*, except for ceremonies involving a single battalion, each battalion will be formed on its own parade, reports received, and the battalion presented to the battalion commander. At the second sounding of *adjutant's call* the regiment is formed.

10-4. *MODIFICATION OF FORMATIONS.*—Formations for ceremonies may be modified by commanding officers when the nature of the ground or exceptional circumstances require such changes to be made.

10-6. *SHIPS' LANDING FORCES.*—For ceremonies and street parades it is desirable, for training, to have ships' landing-force units organized, armed, and equipped as for combat operations ashore.

SECTION II

REVIEWS

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Presentation and honors-----	10-13	9
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To march in review-----	10-15	11

10-7. *ELEMENTS OF A REVIEW*.—A review consists of four parts:

- a. Formation of troops.
- b. Presentation and honors.
- c. Inspection (passing around the troops).
- d. March in review.

10-8. *COMMANDER OF TROOPS*.—The senior officer present in the ceremony is designated as commanding officer of troops. He is responsible for the formation, presentation, and march in review. A commander reviewing his own troops designates some other officer as commanding officer of troops. When the review is given for a visiting higher commander or civilian dignitary, the local commander designates a commanding officer of troops so that he may accompany and receive the review with the visitor.

10-9. *PREPARATIONS*.—The line on which the troops are to form and along which they are to march is marked out or otherwise designated. The post of the reviewing officer is marked with a flag which will be placed opposite the center of the line of troops.

10-10. *FORMATIONS*.—a. Any of the formations prescribed for the battalion or regiment may be used. Such formation may be modified to meet the local situation. The formation used depends on the space available and the formation in which the units are to pass in review. When practicable, the formation selected should

REVIEWS

have all squad columns either perpendicular or parallel to the line on which the troops form.

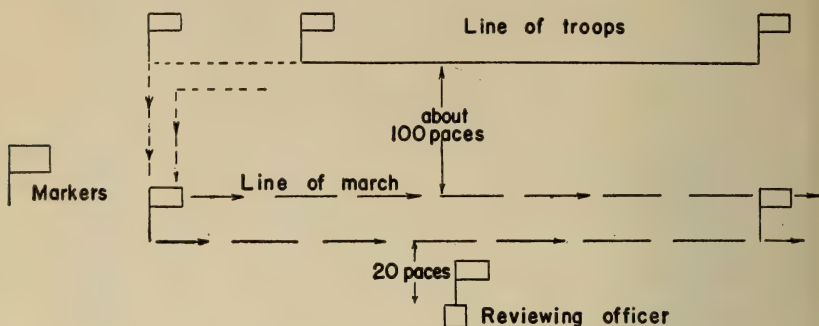


FIGURE 1.—To illustrate paragraph 10-9.

b. The following is a list of normal review formations (may be modified to meet local conditions):

	<i>Approximate frontage (paces)</i>
(1) For a battalion:	
(a) Battalion in line with companies in mass formation (fig. 3, Chapter 4).....	90
Companies in extended mass formation (fig. 6, Chapter 3).....	110
Troops pass in review in company mass formation.	
(b) Battalion in line with companies in line (fig. 2, Chapter 4).....	320
Troops pass in review in column of threes (or fours).	
(2) For a regiment:	
(a) Regiment in line with companies in mass formation (fig. 8, Chapter 4).....	310
Troops pass in review in company mass formation.	
(b) Regiment in line with battalions in mass formation (fig. 7, Chapter 4).....	150
Troops pass in review in battalion mass formation.	
(3) Two or more regiments:	
Regiments in line with each regiment in line of battalion masses.	
Troops pass in review in battalion mass formation.	

c. In reviews of a regiment or larger group, especially when troops pass in review in mass formation, special arrangements are made to provide for breaking up into march columns after troops have passed the reviewing officer. This may be done by assigning areas which do not block the line of march into which different units can move while still in mass formation.

d. When a review is held at evening colors, as soon as the troops are formed and brought to present arms, the commander of troops commands **SOUND RETREAT** (or gives a signal to the band or

FORMATION FOR REVIEW

bugles). The bugles sound *Retreat* and immediately afterward the band plays the *National Anthem*. The flag is lowered as the band plays the *National Anthem*.

e. The commanding officer of troops remains facing the troops and salutes at the first note of the *National Anthem*. At the last note of the *National Anthem* he faces the reviewing officer and salutes him. The reviewing officer returns the salute. The commanding officer of troops brings the troops to **Order arms** and the ceremony proceeds.

10-11. **FORMATION FOR REVIEW.**—a. Battalions and regi-

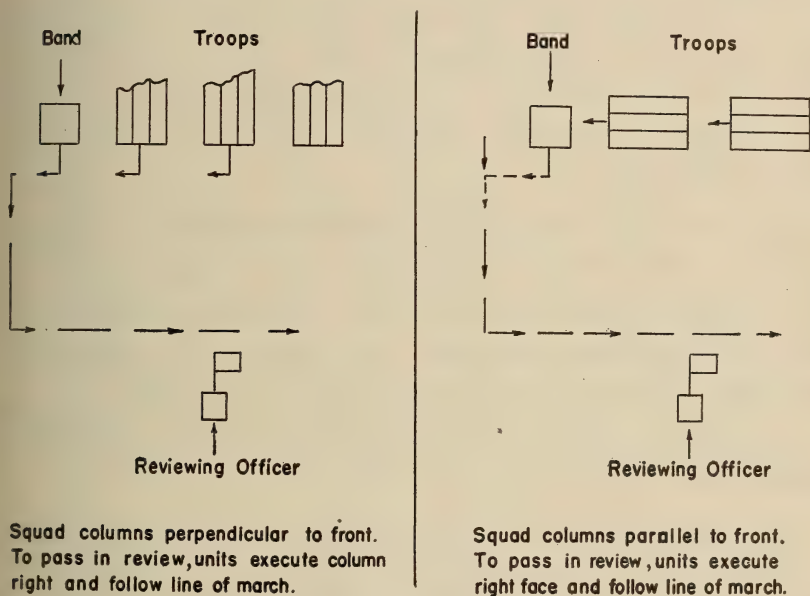


FIGURE 2.—To illustrate paragraph 10-11.

ments are formed as prescribed. In reviews in which two or more arms are present the troops are arranged *as directed by the commander of troops*. The following order, from right to left in line, may be used as a guide: Infantry regiments and other units which contain foot troops; motorized artillery; tanks; motorized service units. In each category the units are arranged in order of the rank of their commanders.

b. Troops move to position in the most convenient manner. In large reviews, the commanding officer of troops prescribes the routes and time of arrival. If the frontage of units has been measured and marked, they may arrive in any convenient order and occupy their

REVIEWS

place in line. If this is not done, units must form successively from the right. The former method is preferable in large mixed commands.

c. (1) When all units are formed and aligned, the troops are presented to the commander of troops by a designated staff officer. The commander of troops and his staff take position so as to be in front of the post of the reviewing officer, midway between the line of the next lower commanders in the formation and the post of the reviewing officer if not already in such position.

(2) If the formation contains more than one regiment, the regimental commanders direct their regiments to present arms, starting with the center (or right center) regiment and continuing simultaneously toward both flanks. If the formation consists of a single regiment, the same principle is followed. Battalions execute **Present arms, Order arms**, or other movements of the manual at the commands of the battalion commanders. If the formation consists of a single battalion, it presents arms at the command of the adjutant.

(3) The commander of troops returns the salute of the staff officer who presented the command and directs him to take his post. He then draws sword (if so armed) and brings the command to the **order** and gives **Rest** or **At ease**. The commander of troops and his staff then form so as to face the post of the reviewing officer.

(4) Staff and orderlies salute only when the command is presented to the reviewing officer. At other times they stand at attention at **Order arms**.

10-12. **REVIEWING PARTY.**—a. When the formation has been completed, the reviewing officer with his staff and orderlies moves to his position opposite the center of the line of troops to receive the review.

b. The local commander (if not acting as commander of troops), distinguished civilians invited to accompany the reviewing officer, staffs, and enlisted personnel take positions facing the troops as shown in figure 3 with $1\frac{1}{2}$ paces distance between ranks. When an organization is to be reviewed before an inspecting or other officer junior in rank to the local commander, the latter takes position on the left of the local commander.

c. An officer from the local staff is designated to escort distinguished civilians and to indicate to them their proper places. If a civilian is to receive the review, he takes position on the right of the local commander and, if necessary, timely explanation of the cere-

PRESENTATION AND HONORS

mony is made to him. The reviewing party is mounted only when the commander of troops is likewise mounted. When the commander of troops is in a motor vehicle, the reviewing officer receives the review on foot.

10-13. **PRESENTATION AND HONORS.**—*a.* As the reviewing officer moves to his position, the commander of troops brings his command to attention. Troops come to attention at the commands of their respective battalion commanders.

b. When the reviewing officer is in position, the commander of troops faces his troops and directs **Present arms**, which is executed in the same manner prescribed in paragraph 10-11. When all units have come to **Present arms**, he turns about and salutes the reviewing officer. His staff and orderlies salute with him.

c. The band (or a designated band near the center of the command,

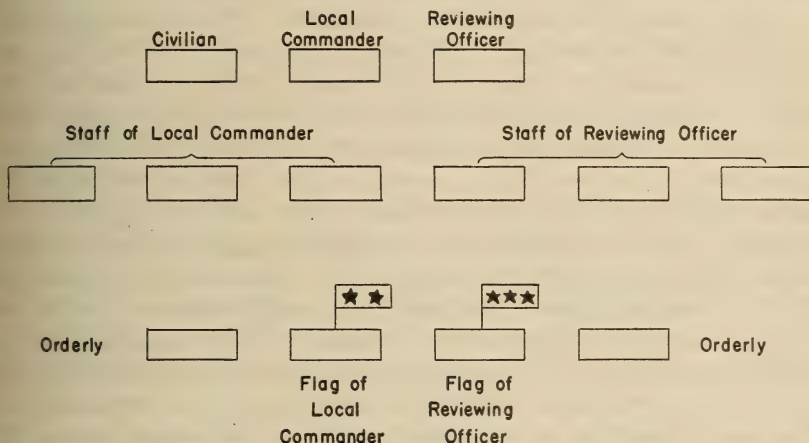


FIGURE 3.—The reviewing party.

if more than one band is present) or field music then sounds the honors. When the honors are completed, the commander of troops terminates his salute (his staff conforming) and brings the troops to **Order arms**. If the formation consists of more than one battalion, he orders **At ease**.

d. When artillery is present in the review and when the commander of troops deems it practicable, a salute may be fired. The first gun is fired with the first note of the honors. The detachment firing the salute rejoins its unit after the salute is fired. The salute may be fired for those entitled to a gun salute in addition to the salute provided in Chapter 5, U. S. Navy Regulations, for visiting officials. Its

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use should be limited to special ceremonial occasions and when the presence of civilian spectators makes desirable an especially impressive ceremony.

e. When the grade of the reviewing officer entitles him to the honor, each regimental color salutes with its command.

f. The reviewing officer, his staff, and all military spectators salute at the first note of the music and retain the salute until music is completed.

g. Honors will be rendered in accordance with Chapter 5, U. S. Navy Regulations.

10-14. *INSPECTION.*—*a.* The reviewing officer and his party move forward to the commander of troops. The two exchange salutes. Staffs do not salute. The commander of troops then conducts the reviewing party around the formation, beginning with the unit on the right of the line and passing in front of the line and then back around the rear of the formation. While passing around the troops, the reviewing officer may direct that his staff, flag, and orderlies remain at the post of the reviewing officer, or that only his personal staff and flag accompany him. The commander of troops and the local commander accompany the reviewing officer while he passes around the troops and march on that side of the reviewing officer which is away from the troops. The staffs of the commander of troops, of the local commander (if present), and of the reviewing officer follow, each staff following its own commander in column of files. In passing around the troops, the staffs maintain the formation in which they commence their march. If the inspection is to be made in motor cars, the reviewing party enters cars which drive up to the post of the reviewing officer after completion of the honors. One seat in each car on the side away from the troops during the inspection is left vacant. The cars move to the post of the commander of troops. The commander of troops enters the car with the reviewing officer. A staff officer enters each of the other cars. Orderlies and flag remain at their posts.

b. The reviewing officer makes such general inspection of the command as he may desire while passing around the troops. A detailed inspection is not a part of the ceremony of review.

c. The band of an organization plays while the reviewing officer is in front or rear of the organization.

d. If the formation is standing at ease, each company or massed unit is brought to attention as the reviewing party approaches.

TO MARCH IN REVIEW

e. As the reviewing party approaches each front line company or battalion (if the battalion is in mass formation), its commander gives the commands, 1. *Eyes*, 2. *RIGHT*. The men execute *Eyes right* and as soon as the reviewing officer comes into their line of vision they follow him with their eyes, turning the head, until the reviewing officer reaches their front when the head and eyes of each man, individually, remain fixed to the front.

f. On arriving again at the right of the band after passing around the line, the commander of troops salutes the reviewing officer and halts (or dismounts from his car). The reviewing officer and the commander of troops with their staffs then return to their respective posts.

10-15. *TO MARCH IN REVIEW*.—a. When the reviewing party is again in place, the commander of troops commands: *PASS IN REVIEW*. At the command *Pass in review*, the band of the right unit changes direction, if necessary, and halts.

b. When the band has halted, the commander of the unit next to the band gives the command to put the troops in march in the formation designated for the review. Troops pass in review in quick time only.

c. Other units move out in succession so as to follow at the prescribed distance.

d. The band and each unit change direction at the points indicated without command from the commander of troops. At each change of direction the commander of each mass formation (company or battalion) in turn commands: 1. *Column left*, 2. *MARCH*, 3. *Forward*, 4. *MARCH*. The third and fourth commands are given so that the unit steps off at full step when the change of direction is completed.

e. Regimental commanders and battalion commanders move into position in the column at the head of their troops after the first change of direction.

f. The commander of troops moves into position at the head of the column after the second change in direction.

g. Each commander, when he arrives six paces from the front of the reviewing officer, salutes. He terminates the salute when his staff has passed six paces beyond the reviewing officer. His staff salutes and terminates the salute with him.

h. Each band executes *Column left* when it has passed the reviewing officer. It executes a second *Column left* and a third *Column left* so as to place the band in front of and facing the reviewing officer and at least 12 paces from the left flank of the marching troops. It

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continues to play until the regiment has passed. It then ceases playing and follows in rear of its regiment. The band of the following regiment commences to play as soon as the preceding band has ceased. In large commands, two bands may remain alongside of each other after they have turned out of column to alternate in playing the troops by. Such an arrangement is necessary to rest the musicians if the playing of march music is to be long continued. In large commands, bands may be massed and posted as directed by the commander of troops as another alternative.

i. Each company commander (or the senior company commander if the battalion is in mass formation), when six paces from the front of the reviewing officer, without turning his body, commands: 1. **Eyes**, 2. **RIGHT**; 3. **Ready**, 4. **FRONT**. He gives the command **Right** when he is six paces from the front of the reviewing officer and the command **Front** when the rear of his unit has passed six paces beyond the reviewing officer. He brings his sword to the first position of **Present sword** at the command **Eyes** and to the second position at the command **Right**. He resumes the carry at the command **Front**. In each company or mass formation the men on the right do not execute **Eyes right**.

j. When passing in review, at the commands 1. **Eyes**, 2. **RIGHT**, the following salute:

(1) The officer who gives the command and his staff execute **Present sword** (or **Hand salute** if armed with pistol). Orderlies execute **Hand salute**. Guidon or flag bearers execute **Present guidon**. They all terminate the salute (or come to **carry sword** or **guidon**) with the commander.

(2) In battalion mass formation at the commands 1. **Eyes**, 2. **RIGHT**, company commanders and officers in the front rank of the mass execute **Present sword** (or **Hand salute** if armed with pistol). No others salute.

(3) In a company not part of a battalion mass formation platoon leaders execute **Present sword** (or **Hand salute** if armed with pistol).

(4) All terminate the salute at the command **Front**. Those with sword or guidon return to the **carry**.

(5) The band leader and the drum major execute and terminate the salute at the points prescribed for other commanders.

(6) If the reviewing officer is entitled to a color salute, the regimental color salutes when at six paces from his front and is raised when at six paces beyond him.

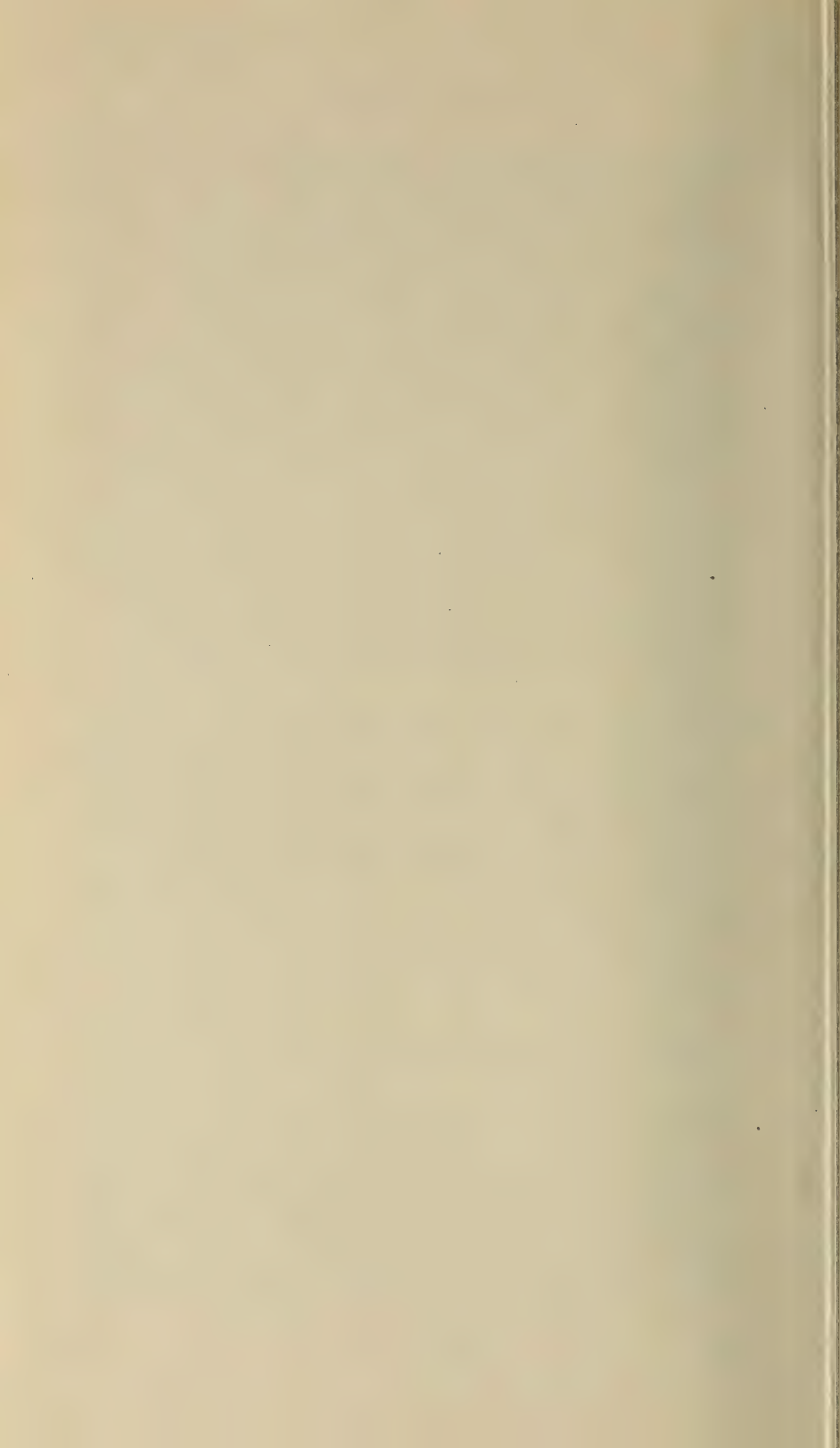
TO MARCH IN REVIEW

k. Troops march in review with the guide toward the flank on which the reviewing officer is posted.

l. After saluting the reviewing officer in passing in review, the commander of troops turns out of the column and takes post on the side of the reviewing officer toward the direction of march of the command, and returns sword. The members of his staff accompany him, take post on the corresponding side of the reviewing officer's staff, and return sword with him. When the rear element of his command has passed, the commanding officer of the troops, without changing his position, salutes the reviewing officer with the hand salute. He and the members of his staff then rejoin the command. If the person reviewing the command is not mounted, the commanding officer and his staff, on turning out of the column after passing the reviewing officer, dismount preparatory to taking post. In such case the salute of the commanding officer, prior to rejoining his command, is made before remounting. If the commanding officer and his staff are in motor cars, the cars are parked on the side of the reviewing officer toward the direction of march and in rear of the lines occupied by the reviewing officer, the commanding officer, and their staffs.

m. All individuals at the reviewing stand salute the color as it passes. When passing around the troops, the reviewing officer and those accompanying him salute the color when passing in front of it.

n. The reviewing officer returns the salute of the commanding officer of the troops and the salutes of subordinate commanders down to include the battalion commanders. Those who accompany the reviewing officer do not salute.



SECTION III

PARADES

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10-16. *CEREMONIAL PARADE*.—*a*. This parade is the same as a review, except that the appearance and movement of troops in formation are the primary considerations. For this reason the troops usually form without transportation. If machine-gun and special-weapons companies are formed with carts, their formations and movements conform, insofar as practicable, to those of rifle companies. Small headquarters companies and detachments are attached to larger units. The march to the initial formation is made to music (band, bugles, or drums). Escort of the color or the presentation of decorations may be included in a ceremonial parade after the troops have been presented to the reviewing officer.

b. The special-parade ceremonies described in paragraphs 10-17 and 10-17A are for use at the option of local commanders in lieu of the regular ceremony prescribed above.

10-17. *BATTALION PARADE (SPECIAL)*.—*a*. At *Adjutant's Call* the troops are formed in line with companies in line or in line with companies in mass (or extended mass) formation as for a review but not presented. The battalion commander takes post at a convenient distance in front of the center of and facing the troops.

b. The adjutant takes post between the battalion commander and the center of the troops and commands: 1. **Parade**, 2. **REST**. After the troops have executed **Parade rest**, he commands: **SOUND OFF**. The adjutant and the battalion commander and his staff stand at attention during the *Sound Off* and march by the band.

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c. The band, in place, plays the *Sound Off* of three chords, and at the conclusion of the third chord moves forward, playing a march in quick time. It executes **Column left** so as to march across the front of the troops midway between the adjutant and the line of troops. When the band has passed the left of the line, it countermarches and returns over the same ground to the right of the line. After it passes beyond the right of the troops, it executes **Column right**. When the entire band has passed beyond the front rank of the troops, it again countermarches and halts in its original position. When the band ceases playing the march, the *Sound Off* is again played. At evening parade, *Retreat* is then sounded by the field music. Following the last note and while the flag is being lowered, the band plays the *National Anthem*.

d. Immediately after the last note of *Retreat* (or of *Sound Off* at the conclusion of the march by the band, if the parade is not an evening parade), the adjutant commands: 1. **Battalion**, 2. **ATTENTION**, 3. **Present**, 4. **ARMS**. The adjutant facing the troops then salutes. The troops remain at **Present arms** during the playing of the *National Anthem*. The adjutant then turns about facing the battalion commander, salutes, and reports, "Sir, the parade is formed." The battalion commander directs the adjutant, "Take your post, Sir," and draws sword. The adjutant passes by the battalion commander's right and takes post one and one-half paces to the rear and one pace to the right of the battalion commander.

e. The battalion commander then commands: 1. **Order**, 2. **ARMS**, and gives such movements in the manual of arms as he may desire. Officers, petty officers commanding platoons, the color guard, and guidon bearers having once executed the **Order**, remain in that position during the movements of the manual.

f. The battalion commander then directs the adjutant, "Receive the reports, Sir." The adjutant, passing by the battalion commander's right, advances toward the center of the battalion, halts midway between it and the battalion commander, and commands: **REPORT**.

(1) At the command **Report**, the company commanders in succession from the right salute and report, "A (or other) company, present or accounted for"; or, "A (or other) company, (so many) officers or men absent." The adjutant returns each company commander's salute after the report is made and understood. He returns to the **Carry** after acknowledging each salute.

(2) The reports received, the adjutant turns about, salutes, and reports, "Sir, all present or accounted for"; or "Sir, (so many) officers or men absent", including among the absentees those from the band and field music reported to him by the band leader prior to the parade.

BATTALION PARADE (SPECIAL)

g. The battalion commander then directs, "Publish the orders, Sir." The adjutant then turns about and commands: **ATTENTION TO ORDERS**. He publishes the orders and then commands: 1. **Officers**, 2. **Center**, 3. **MARCH**. After giving the command **March**, the adjutant turns about and takes his post with the battalion commander.

h. At the command **Officers**, all company officers execute **Carry sword**, guidon bearers execute **Carry guidon**. When companies are in line, at the command **Center**, all company commanders, officers commanding platoons, and guidon bearers face to the center. When companies are in mass formation, at the command **Center**, all company commanders and guidon bearers face to the center. Officers commanding platoons step one pace forward and face to the center. Officers second in command move around the flank nearest to the center and take post in the column formed by the platoon leaders. At the command **March**, the band plays, officers and guidon bearers close to the center, halt, and individually face to the front; company commanders when moving to the center, oblique to the front and close on a line four paces in advance of the line of guidon bearers; guidon bearers close on their own line, each taking post in rear of his own company commander; all other officers close on the line of platoon leaders.

i. The officers and guidon bearers having closed and faced to the front, the senior commands: 1. **Forward**, 2. **MARCH**. The officers and guidon bearers advance, the center officer of the leading rank being the guide, and march on the battalion commander. The officers and guidon bearers are halted by the senior with the leading rank six paces from the battalion commander. They halt and salute the battalion commander, who returns the salute. The battalion commander then commands: 1. **Carry**, 2. **SWORD**. At the first command, the guidon bearers grasp the lance with the left hand, executing the first position of **Carry guidon**, and officers execute **Order sword**. At the second command, the officers execute **Carry sword**, the guidon bearers completing the **Carry guidon**. The battalion commander then gives such instructions as he deems necessary, and commands: 1. **Officers**, 2. **Posts**, 3. **MARCH**.

j. At the command **Posts**, all officers and guidon bearers face about.

k. At the command **March**, they step off with the guide as before, the center officer of the leading rank being the guide. The senior commands: 1. **Officers**, 2. **HALT**, so as to halt the leading rank six paces from the line of companies when companies are in line and three paces when companies are in mass formation. He then commands: 1. **Posts**, 2. **MARCH**.

l. At the command **Posts**, officers and guidon bearers face outward, and at the command **March**, officers step off in succession at four

PARADES

paces distance, resume their posts, and execute **Order sword**; guidon bearers step off with their company commanders, resume their posts, and execute **Order guidon**. The music ceases to play when the last officer has resumed his post. During the execution of **Officers, center** and **Officers, posts**, all officers and guidon bearers remain at **Carry sword** and **Carry guidon** except when saluting the battalion commander.

m. The battalion commander then gives the commands for the battalion to pass in review and returns sword.

n. The battalion passes in review according to the commands and principles given for a review. When the last company has passed, the ceremony is concluded.

o. The band continues to play while the companies are in march upon the parade ground. After passing in review, companies are marched to their respective parades and dismissed.

10-17A. **REGIMENTAL PARADE (SPECIAL)**.—The regiment is ordinarily formed in line of companies with companies in mass formation. The parade proceeds as for the battalion with the following exceptions:

a. "Regimental commander" is substituted for "battalion commander," and "regiment" for "battalion" in the description; and "battalions" for "battalion" in the commands.

b. In moving across the front of the regiment, the band passes midway between the adjutant and the line of battalion commanders.

c. The battalions execute **Present arms, Order arms, Parade rest**, and come to **Attention** at the command of execution of their respective commanders, starting with the center (or right center) battalion and continuing simultaneously toward each flank. Reports are made by battalion instead of company commanders.

d. After making his report, the adjutant commands: 1. **Officers**, 2. **Center**, 3. **MARCH**. Battalion commanders and their staffs close on the line of battalion commanders, company commanders oblique to the front and close on a line four paces in their rear, guidon bearers oblique to the front and close on a line four paces in rear of the company commanders, other officers oblique to the front and close on a line four paces in rear of the guidon bearers.

e. The officers and guidon bearers are returned to their posts and the regiment marches in review as in battalion parade.

SECTION IV

STREET PARADES

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10-18. *THE GRAND MARSHAL*.—*a.* Street parades are ordinarily commanded by a person who is designated as grand marshal. He appoints a chief of staff and aides, and issues a general order giving all necessary directions for the formation, movement, and dismissal of the parade. This order includes:

(1) The names of his staff officers, and when and where they are to report to him.

(2) The assignment of organizations and their order in brigades and divisions, and names and assignment of brigade commanders and marshals of divisions.

(3) The streets upon which the different brigades and divisions form, the direction in which their lines or columns face, where the right or head rests, and the width of the front of the subdivisions in column.

(4) The time for each division to complete its formation and stand ready to march.

(5) The time and place from which the head of the parade will move, the line of march, and the direction of the guide.

(6) Honors to be paid by the troops during the march.

(7) Instructions for the dismissal of the parade.

(8) Instructions regarding uniform.

b. The grand marshal may review the parade, just prior to its dismissal, at some designated point beyond the reviewing stand.

10-19. *ORDER OF PRECEDENCE*.—The order of precedence in street parades is as follows:

(1) Cadets, United States Military Academy.

(2) Midshipmen, United States Naval Academy.

(3) Cadets, United States Coast Guard Academy.

(4) Regular Army.

(5) United States Marines.

(6) United States Naval forces.

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(7) United States Coast Guard detachments.

(8) National Guard, Marine Corps Reserve, and Naval Reserve organizations which have been federally recognized.

(a) National Guard organizations.

(b) Marine Corps Reserve organizations.

(c) Naval Reserve organizations.

(9) Other organizations of the Organized Reserves, National Guard, Naval Militia, Reserve Officers' Training Corps, and other training units in the order prescribed by the grand marshal of the parade.

(10) Veterans and patriotic organizations in the order prescribed by the grand marshal of the parade.

10-20. *FORMING THE COLUMN.*—*a.* The grand marshal marches at the head of the parade; his staff, chief of staff on the right, marches one and one-half paces to his rear in one or more ranks. The grand marshal is usually preceded by mounted police and a platoon of dismounted police who clear the way. The marshal of the first division marches 24 paces in rear of the staff of the grand marshal.

b. Odd numbered divisions are ordinarily formed in streets to the right of the line of march, the first division nearest the starting point. Even numbered divisions are similarly formed on the streets to the left. Among the formations which may be used for street parades are column of threes (or fours); two or more columns of threes (or fours) abreast; mass formation. Transportation marches in single column or column of twos, threes, or fours as the street width permits.

c. In long parades rifles may be carried slung over the right shoulder with bayonets fixed.

SECTION V

PRESENTATION OF DECORATIONS

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10-21. *PRESENTATION OF DECORATIONS.*—*a.* Whenever practicable, a review will be held on occasions of:

(1) The presentation of an American decoration, except when the medal of honor is presented in person by the President.

(2) The decoration of the colors.

(3) The presentation of a foreign decoration.

b. After the reviewing officer has passed around the line and resumed his post, the commanding officer of the troops from his post commands, orders, or signals: 1. **Persons to be decorated and all colors, center**, 2. **MARCH**. At the command **March**, persons to be decorated and all colors move by the most direct route and take post as follows:

(1) The persons to be decorated in single rank in the center of the command and 10 paces in front of the line of company commanders in groups according to rank of decorations; within each group according to rank of individuals, highest ranking decoration and individual on the right, respectively.

(2) Colors to be decorated in single rank 5 paces in front of the center of the line of persons to be decorated in groups according to rank of decoration to be bestowed, highest ranking decoration on the right.

(3) All other colors with color guards in single rank 5 paces in rear of the center of the persons to be decorated and in the same relative position as their location in the command.

(4) The commanding officer of the troops takes post 5 paces in front of the center of the leading element. He then commands: 1. **Forward**, 2. **MARCH**. At the command **March**, the commanding officer, the persons to be decorated, and the colors advance, the band playing. The commanding officer of the troops marches on the reviewing officer. In all ranks the guide is center. The detachment is halted by the commanding officer of the troops when he has reached a point 10 paces from the reviewing officer by the command: 1. **Detachment**, 2. **HALT**. The band ceases playing when the detachment

PRESENTATION OF DECORATIONS

halts. The commanding officer of the troops then salutes the reviewing officer and reports "Sir, the persons (colors) to be decorated are present." The reviewing officer returns the salute and directs that the command be presented. The commander of the troops returns to his post in front of the center of his command by moving around the right flank of the persons or colors to be decorated and then directly to his post. On reaching his post he commands: 1. **Present**, 2. **ARMS**, faces about, and salutes. The band then plays the *National Anthem*. If only field music is present, it sounds *To the Color*. On completion of the music, the commanding officer of the troops brings the command to the order. The persons to be decorated salute and terminate the salute at the commands **Present arms** and **Order arms**, respectively, of the commanding officer of the troops.

c. A designated officer of the staff then reads the order announcing the awards. After the reading of the order, the reviewing officer, accompanied if necessary by his staff or designated members thereof, advances to the colors and to the line of persons to be decorated and fastens the appropriate streamer to the staff of the color, and pins the decoration awarded on the left breast of each person. He then directs the commanding officer of the troops to march the command in review and resumes his post. The persons decorated form line on the left of the reviewing officer or as otherwise directed, and the colors are returned to their posts by the most direct route.

SECTION VI

ESCORT OF THE NATIONAL COLOR

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10-22. *ESCORT OF THE NATIONAL COLOR.*—*a.* (1) When the ceremony of *escort of the national color* is to take place, the color guard obtains the regimental color and takes its post with the color company prior to the regiment being formed. This is done informally.

(2) The regiment being formed and the entire color guard in position with the regimental color but without the national color (see fig. 10), the regimental commander details a company, other than the color company, to receive and escort the national color to its place. During the ceremony the regimental color remains with the color guard at its post with the regiment.

(3) The band moves straight to its front until clear of the line of battalion commanders, changes direction, if necessary, and halts. The designated company forms column of threes (or fours) 15 paces in rear of the band with the color bearer in rear of leading platoon.

(4) The escort then marches without music to the regimental commander's office or quarters and forms in line facing the entrance.

(5) The color bearer, preceded by the senior platoon leader of the escort company and followed by a designated petty officer (sergeant) of the escort company, obtains the color.

(6) When the color bearer returns followed by the platoon leader and the petty officer, he halts before the entrance, facing the escort. The platoon leader places himself on the right, and the petty officer on the left, of the color bearer. The escort then presents arms, and the field music sounds *To the Color*. The platoon leader and the petty officer salute at the command of the company commander.

(7) Arms are brought to the order; the platoon leader and the petty officer return to their posts in the company. The company is formed in column, the band taking post in front of the column. The color bearer places himself in the center of the space in rear of the leading platoon. The escort then marches in quick time, back to the regiment, the band playing. The march is conducted so that the escort arrives at a point 50 paces in front of the right of the regi-

ESCORT OF THE NATIONAL COLOR

ment, and then passes parallel to its front. When the color arrives opposite the center of the regiment, the escort and band are formed in line facing the regiment. The color bearer, passing between the platoons, advances and halts 6 paces in front of the regimental commander.

(8) The color bearer having halted, the regimental commander, who, prior to the arrival of the color bearer, has taken post 30 paces in front of the center of the regiment, faces about and commands: **PRESENT ARMS.** The commander of the center battalion commands: 1. **Present,** 2. **ARMS.** The other battalion commanders, successively from the center, and the escort commander, bring their units to present arms. The regimental commander then faces to the front and salutes; the field music then sounds *To the Color*; and the regimental color renders the prescribed salute, while *To the Color* is being played.

(9) The regimental commander then faces about and brings the regiment to the order and the color bearer rejoins the color guard (which has remained at its original post).

(10) After the escort executes order arms at the command of its commander, it forms in column to the right and, preceded by the band, marches to its place, passing around the left flank of the regiment.

(11) The band plays until the escort passes the left of the line. It then returns to its post on the right, passing in rear of the regiment.

(12) The regiment may be brought to rest when the escort passes the left of the line.

b. Escort of the national color is executed by a battalion according to the same principles as for a regiment.

SECTION VII

ESCORT OF HONOR

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10-23. *ESCORT OF HONOR.*—*a.* Escorts of honor are detailed for the purpose of receiving and escorting personages of high rank, civil or military. The troops detailed for this duty are selected for their military appearance and superior discipline.

b. The escort forms in line, opposite the place where the personage is to present himself, the band on the flank of the escort toward which it is to march. On the appearance of the personage, the escort is brought to attention and, when he has taken position from which to receive them, the honors due his rank are rendered. Ordinarily the person so honored will, at this time, inspect his escort. The escort then forms column and takes up the march. The personage with his staff or retinue takes position in rear of the column. When the personage leaves the escort, line is again formed, and when he has taken position from which to receive them, the same honors are rendered as on his arrival.

c. When the position of the escort is at a considerable distance from the point where the personage is to be received, as for instance were a courtyard or wharf intervenes, a double line of sentinels facing inward, is posted from that point to the escort. The sentinels successively salute as the personage passes and then are relieved and join the escort.

d. An officer is designated to attend the personage and bears such message as he may desire to send to the commander of the escort.

SECTION VIII

FUNERALS

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10-24. *GENERAL*.—*a*. When not contrary to orders and regulations, the extent to which the naval service participates in a funeral is influenced by the expressed wishes of the family of the deceased.

b. The composition and strength of the escort will be as prescribed in Navy Regulations, or as modified by proper authority.

c. The military features of a funeral usually commence at one of the following places: home of the deceased, mortuary, railroad station, church, chapel, gates of the cemetery, or at the grave; however, they may commence at any designated location.

d. The ceremony begins when the remains are first received by the escort. Prior to that time the body bearers may be detailed to transfer the remains where necessary.

e. In general, one of the following procedures governs:

(1) The escort receives the remains at the place designated and conducts them to the chapel for services and then to the grave.

(2) The escort receives the remains at the chapel prior to the services and, upon completion of services, conducts them to the grave.

(3) The escort receives the remains at the gates of the cemetery and conducts them to the grave.

(4) The escort receives the remains at the grave.

f. *Each time the body bearers move the remains*.—(1) The escort presents arms.

(2) The band renders the prescribed honors, followed by appropriate music.

(3) The pallbearers execute the hand salute.

(4) All other persons in the naval service in uniform, except the body bearers, salute with the hand.

(5) All persons in the naval service in civilian clothing uncover and hold the headdress over the left breast.

g. In draping the casket with the national color, the union is placed at the head of the casket and over the left shoulder of the deceased. When the casket is draped with the national color the cap and sword of the deceased will not be displayed thereon.

h. The casket is always carried foot first, except that the casket of a clergyman is carried into and out of the church or chapel head first.

FUNERALS

i. The pallbearers will walk or ride, depending on their age and the distance to the place of interment.

j. As required, the senior pallbearer will give cautionary commands to his contemporaries in a low tone. Normally, they salute at the command **Present arms**, given by the escort commander.

k. *At the funeral of a mounted officer or enlisted man.*—(1) His horse, if available, or if not, a suitable horse, in mourning caparison, follows the body bearers.

(2) The standard equipment of a caparisoned horse as prescribed by Army Regulations is as follows:

(a) Black broadcloth saddlecloth with white enamelled leather border 1 inch wide.

(b) White canvas girth 5 inches wide.

(c) White halter tie rope $\frac{3}{8}$ inch in diameter, bound with dark tan leather where rope crosses the neck.

(d) White enamelled brow band $\frac{7}{8}$ inch wide.

(e) White web halter rope 1 inch wide and 6 feet long.

(3) When the deceased is an officer, his sword is placed reversed in the sword sling on the off side of the cantle. His boots, preferably black, will be secured in the stirrups, reversed so that the spurs point forward.

(4) When the deceased is an enlisted man, the stirrup hoods will be reversed.

l. At the funeral of a flag or general officer, his personal flag will be carried in the procession immediately in front of the hearse or caisson.

m. Should the entrance of the cemetery prevent the hearse or caisson from accompanying the escort to the grave, the procession halts at the entrance, the casket is removed from the hearse or caisson, then the procession is again put in motion.

n. When the deceased is entitled to such honors, the minute-gun salute prescribed in Chapter 5, NR., is fired, the first round as the remains enter the cemetery. While the casket is being lowered into the grave, a gun salute, at 5 second intervals, is again fired.

o. When the band has started a hymn and it becomes necessary to stop playing it will continue to play until the end of a stanza has been reached.

p. Officers in uniform attending a funeral in an official capacity will wear a mourning band on the left arm and, if armed with the sword, a mourning knot on its hilt.

q. *Participation by fraternal or patriotic organizations.*—(1) At the request of the immediate family of the deceased, or its representative, fraternal or semi-military organizations of which the deceased was a member may be permitted to take part in the funeral service.

(2) If the ritual is military or semi-military in nature, the rites will begin immediately upon the conclusion of the military religious

DUTIES OF THE OFFICER IN CHARGE OF THE CEREMONIES

service. If the ritual contains the firing of three volleys and the sounding of *Taps*, these features of the military ceremony may be postponed until their appropriate place in the ritual, when they may be rendered by the military firing party and bugler.

(3) Nonmilitary rituals by fraternal organizations will be held at the conclusion of *Taps*. The military escort will be marched away from the site of the grave promptly and quietly at the termination of the military ceremonies.

r. Cremation.—(1) In cases where the remains are cremated and the ashes interred with military honors, the provisions of paragraphs 10-24 to 10-28 inclusive, with necessary modifications, will govern, the word “casket” being construed to mean the receptacle containing the ashes.

(2) For all phases of the funeral where the cremated remains are carried by hand, one enlisted man will be detailed to carry the receptacle containing the ashes. Four enlisted men will also be detailed as flag bearers. When the receptacle containing the ashes is carried from the conveyance into the chapel, from the chapel to the conveyance, or conveyance to the grave, the flag bearers will follow the receptacle, the flag being folded as prescribed in paragraph 11-37*c*, LFM, and carried by the leading flag bearer on the right.

(3) When the receptacle has been placed on the stand before the chancel of the chapel or when placed in the conveyance, the flag will be folded and placed beside the receptacle. If the caisson is equipped with a casket container for the receptacle, the open flag will be laid upon the container as prescribed for a casket, otherwise the flag will be carried, folded as prescribed, by the active flag bearers.

(4) When no hearse or caisson is used, suitable transportation will be provided for the receptacle bearer and the flag bearers.

(5) When the remains are conducted to a crematory and the ashes are to be interred with military honors at a later time, the ceremony will consist only of the escort to the crematory. Arms will be presented as the remains are borne into the crematory. The firing of volleys and sounding of *Taps* are omitted. In case the funeral ceremony is held at the crematory and no further military honors by the Naval service are anticipated, the volleys will be fired (if local ordinances permit) and *Taps* sounded outside the crematory.

10-25. *DUTIES OF THE OFFICER IN CHARGE OF THE CEREMONY.*—*a.* Prior to a funeral, if practicable, an officer will be detailed as officer in charge of the ceremony. He will confer with the clergy and funeral director, and together they will see that all necessary arrangements have been made for the funeral. The chaplain will perform the duties of the officer in charge of the ceremony in case no officer is so designated.

b. As soon as the service in the chapel has begun, the officer in charge will—

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(1) See that the caisson or hearse takes position in front of the chapel and is made ready to receive the casket.

(2) See that a conveyance for flowers takes position at the side or rear entrance of the chapel.

(3) See that cars to be occupied by the clergy (if riding), pall-bearers (when riding), and members of the immediate family are arranged in their proper order (see fig. 4).

(4) Designate four of the body bearers, who, after the casket has been placed on the caisson or in the hearse, will enter the chapel through the side or rear door and assist in carrying out flowers. The remaining body bearers will secure the casket on the caisson. As soon as the four body bearers have loaded the flowers in the flower truck, they will take position in rear of the caisson or hearse.

c. When the body is transferred from the hearse to the caisson, the officer in charge will be in the vicinity of the caisson and indicate by signal to the escort commander when the transfer starts and when it has been completed.

d. When the procession has been put in motion, the officer in charge will proceed to the grave and await the arrival of the funeral party. He will determine the location at the grave for the band, escort, firing party if separated from the escort, the bugler, and other units, and indicate them to the unit commanders upon their arrival at the grave.

e. He will signal the body bearers to remove the remains from the caisson or hearse and the escort and band to render the honors, after the band, escort, and other units are in position at the grave.

f. When the widow or mother of the deceased is unaccompanied, the officer in charge will escort her from her car to the grave and will, when practicable, remain with her until the completion of the commitment service, assisting her in every way possible.

g. After commitment service at the grave, he will secure the folded color from the body bearers and deliver it to the family of the deceased.

h. When situations arise which are not covered by these instructions the officer in charge will be guided by his own judgment.

i. Final decisions regarding any matters pertaining to handling or movement of troops will be made by the officer in charge and all orders to troops in a funeral party will be given through him.

j. At funerals where a funeral director who has been engaged by the family is present, it is essential that the officer in charge cooperate with him and not arbitrarily endeavor to assume duties which the funeral director is being paid to perform.

k. Explain the full import of the volleys to the next of kin or those representing the next of kin and ascertain whether it is desired that the volleys be fired.

RECEIVING THE REMAINS

10-26. *RECEIVING THE REMAINS*.—Whenever the remains are received, the following procedure will govern (see figs. 4 and 5):

a. The escort.—The escort will be formed opposite the place where the remains are to be received. At the appearance of the remains, or when all is in readiness to receive the remains, the commander of the escort will command: 1. **Present**, 2. **ARMS**. When the remains have been received, arms are brought to the order after the doors of the hearse are closed or after the casket is secured to the caisson.

b. The band.—The band will be formed on the flank toward which the escort is to march. At the command **Arms**, by the escort commander, the band will render honors as prescribed in Chapter 5, NR. (provided the deceased is entitled to such honors), followed by appropriate music, ceasing to play at the end of the stanza after arms are brought to the order.

c. The bearer of the personal flag of the deceased.—He will take position immediately in front of the hearse or caisson and will march in this position.

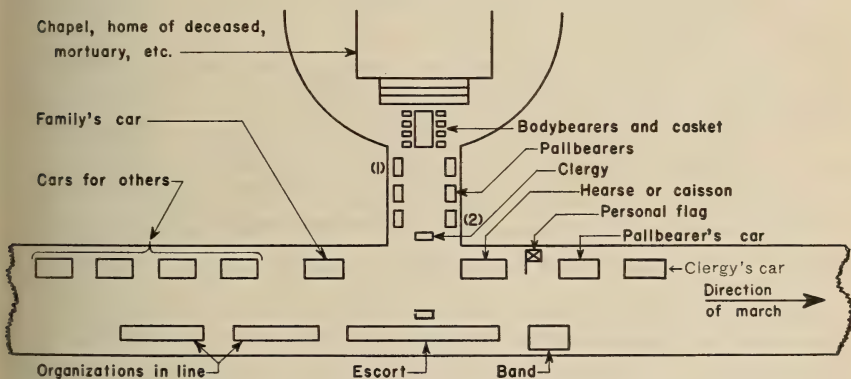


FIGURE 4.—Receiving the remains from a building.

(1) Senior pallbearer. (2) Junior pallbearer.

d. The pallbearers.—(1) *When remains are received at the chapel before services.*—The pallbearers form at the entrance of the chapel, juniors nearest the door, in two ranks, facing each other with sufficient interval for the casket to pass between them.

(a) As the casket is being removed from the hearse or caisson, they execute the first motion of hand salute.

(b) When the casket has passed, they execute the second motion of the hand salute, face toward the door, close interval, follow the casket into the chapel, and take seats reserved for them, usually the left front pews.

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(2) *When the remains are received from a building* (see fig. 4).—The pallbearers assemble inside of the building in column of twos, in inverse order of rank, junior to the left front, prepared to march out.

(a) They follow the clergy out of the building (preceding the casket), open out, halt, face each other, and salute while the casket is passing between them.

(b) They remain at the salute until the escort orders arms.

(c) They then take their place in column of files on each side of the casket, in inverse order of rank, junior in front on the left, the leading member of each column opposite the front wheels of the hearse or caisson.

(3) *When the remains are received at the gates of the cemetery* (see fig. 5).—The pallbearers form in single rank on the flank of the escort opposite the hearse or caisson and in such order of rank that will facilitate getting into position alongside the caisson.

(a) They execute and terminate the hand salute on the commands of the escort commander.

(b) They take their position beside the caisson as prescribed in subpar. (c) above.

e. *The body bearers*.—The body bearers, if not already with the remains, form on the left of the pallbearers.

(a) They leave the formation at the proper time in order to receive the casket and carry it to the chapel, caisson, or grave.

(b) They form according to height on both sides of the casket.

(c) Indoors, while not carrying the casket, body bearers will uncover. At all other times they remain covered.

10-27. *THE PROCESSION*.—a. After the remains have been placed in the hearse or on the caisson and all is in readiness the band and the escort are put in march by the escort commander upon signal from the officer in charge of the ceremony. Elements in rear conform.

b. The procession forms in the following order (see fig. 6) :

(1) The escort commander.

(2) Band or field music.

(3) The escort in suitable formation.

(4) The clergy.

(5) The pallbearers, if riding.

(6) Personal flag of the deceased (general officers and flag officers).

(7) *The casket*.—If pallbearers are present and not riding they will form in inverse order of rank in column of files on each side of the hearse or caisson, junior in front on the left, the leading member

THE PROCESSION

of each column opposite the front wheels of the hearse or caisson. If pallbearers are riding, the body bearers will take place as described for pallbearers beside the hearse or caisson.

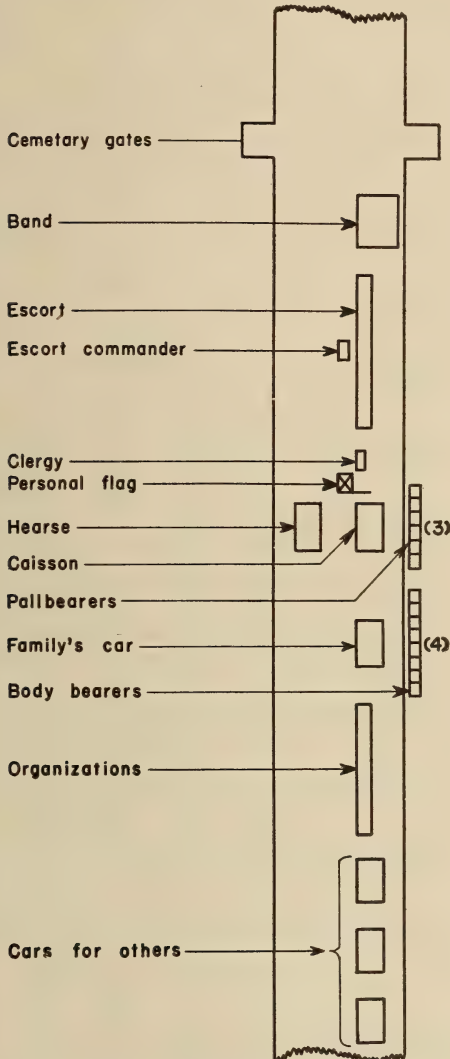


FIGURE 5.—Receiving the remains at the gates of the cemetery (when remains are transferred from hearse or caisson).

(3) In such order of rank as will facilitate getting into position alongside the caisson.

(4) In such order of rank as will facilitate getting into position to transfer the remains to the caisson.

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- (8) The body bearers, if the pallbearers are not riding, in column of twos behind the hearse or caisson.
- (9) Horse of the deceased in mourning caparison.
- (10) Family of the deceased.
- (11) Enlisted men.

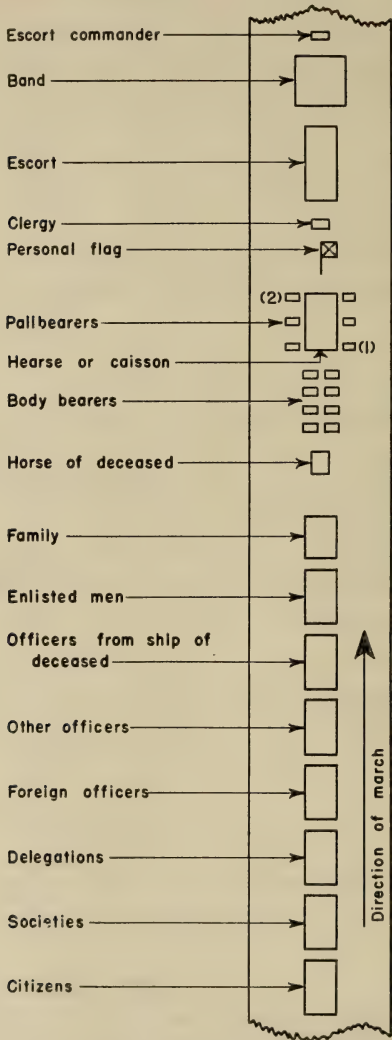


FIGURE 6.—Order of march of funeral procession.
(1) Senior pallbearer. (2) Junior pallbearer.

NOTE.—When pallbearers ride, their car will follow the clergy and the body bearers will march on each side of the hearse or caisson.

AT THE GRAVE

(12) Officers from ship or organization of the deceased in inverse order of rank.

(13) Other officers in inverse order of rank.

(14) Foreign officers.

(15) Delegations.

(16) Societies.

(17) Citizens.

c. The procession marches in slow time to solemn music.

d. When the place of interment is at a considerable distance, the escort, after leaving the place where the remains were received, may march at ease in quick time until it approaches the burial ground, when it is brought to attention. The band does not play while the troops are marching at ease.

e. The field music may alternate with the band in playing.

10-28. *AT THE GRAVE.*—a. *Upon arrival of the procession at a point adjacent to the grave, units turn out of column and take positions as follows:*

(1) *The band.*—In line with and on the right of the escort when formed at the grave.

(2) *The escort.*—In line facing the grave, at a position indicated by the officer in charge of the ceremony, at least 50 feet from the grave, so that the mourners will not be disturbed when the volleys are fired.

(3) *The clergy.*—Near the caisson or hearse and between it and the grave.

(4) *The bearer of the personal flag of the deceased.*—Between the clergy and the caisson or hearse.

(5) *The pallbearers.*—Near the clergy, between the clergy and the grave in two ranks, facing each other, juniors nearest the grave, with sufficient interval to permit the casket to pass between them.

(6) *The family of the deceased.*—Near the caisson or hearse.

(7) *Other units.*—In separate lines near to and facing the grave, at positions indicated by the officer in charge of the ceremony.

b. *When all units are in position and upon signal by the officer in charge of the ceremony:*

(1) *The body bearers.*—Remove the casket from the caisson or hearse, carry it between the pallbearers and in front of the escort, and place it over the grave (on the lowering device). They then raise the flag by the corners and sides and hold it waist high until the service is concluded.

FUNERALS

c. As the body bearers remove the casket from the caisson or hearse:

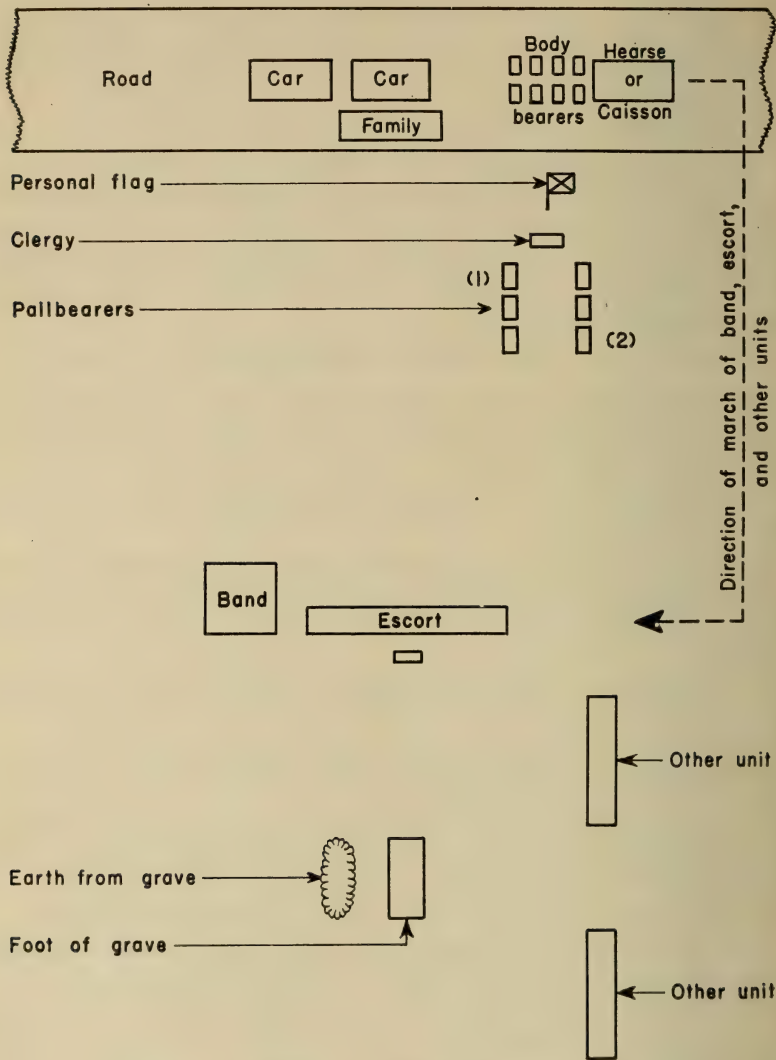


FIGURE 7.—Receiving the remains at the burial ground.
(1) Senior pallbearer. (2) Junior pallbearer.

(1) *The band.*—Renders the prescribed honors followed by appropriate music, ceasing to play when the casket is placed over the grave.

AT THE GRAVE

(2) *The escort*.—Presents arms, retaining the present until the casket is placed over the grave.

(3) *The clergy*.—Precedes the personal flag and the casket.

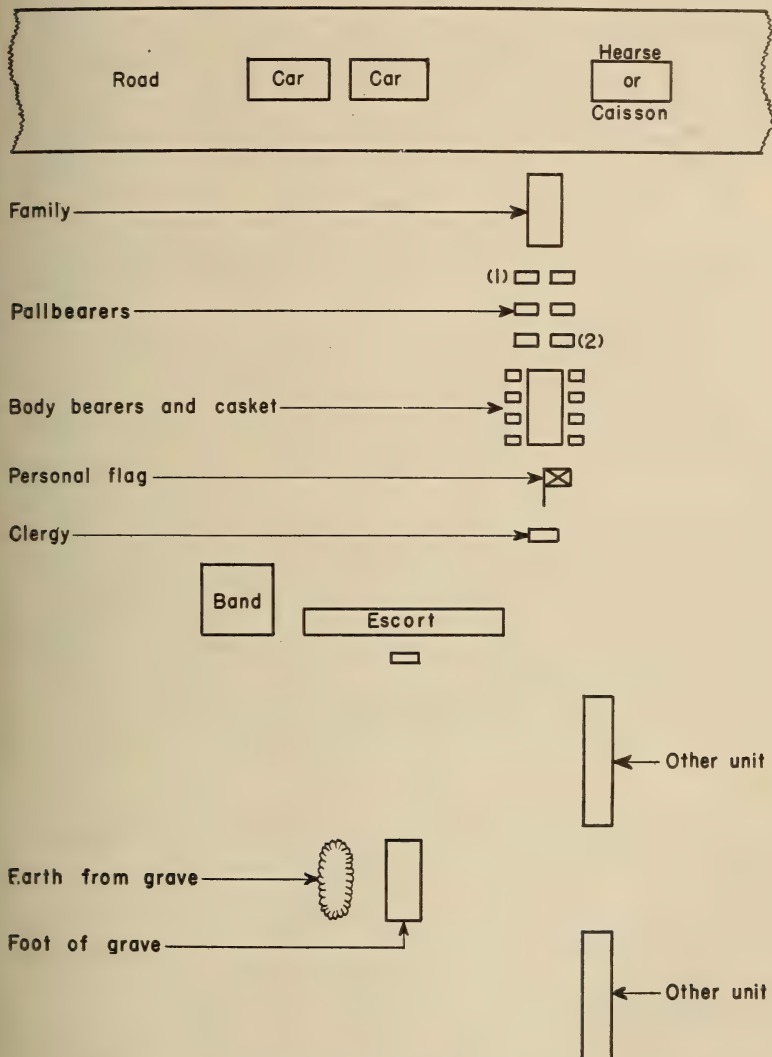


FIGURE 8.—March to the grave.
(1) Senior pallbearer. (2) Junior pallbearer.

(4) *The flag bearer*.—Follows the clergy, preceding the casket, and takes position at the head of the grave where he will remain during the services.

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(5) *The pallbearers.*—Come to the salute. They execute the second motion of the hand salute when the casket has passed, face the grave, close interval and follow the casket. Upon arrival at the grave, they form in two ranks facing the grave, usually just in rear and to one side of the clergy.

(6) *The family of the deceased.*—Follow the pallbearers and take position provided for them.

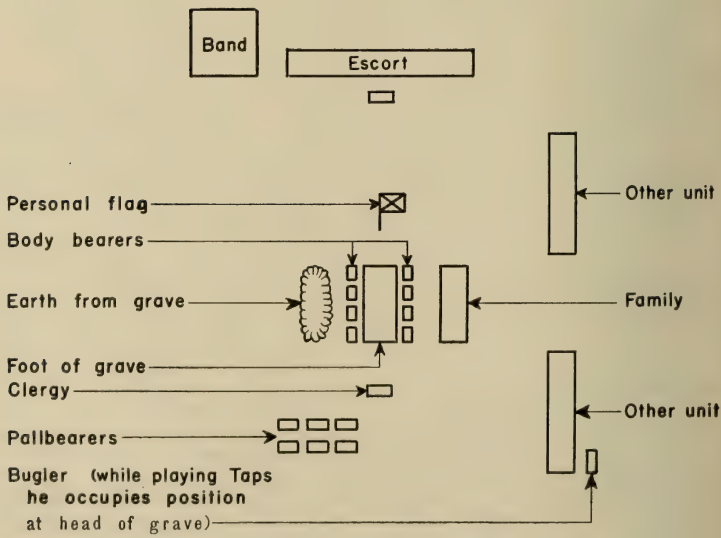


FIGURE 9.—A distribution of units at the grave.

AT THE GRAVE

d. When the casket is placed over the grave and the family has arrived:

(1) *The commander of the escort.*—Commands: 1. **Parade**, 2. **REST**. The escort executes parade rest with officers and men inclining their heads.

(2) *Pallbearers, and other units.*—Execute parade rest in a similar manner at the command of the escort commander.

(3) *The body bearers.*—Remain in their places and hold the color so that, when the casket is lowered, it will be lowered from under the color, the color not being permitted to touch the ground (see subpar. *b* (1) above).

(4) *The clergy.*—Conducts the commitment services.

e. Upon completion of the commitment services:

(1) *The commander of the escort.*—Causes the escort to resume attention. He then commands: 1. **Escort less firing party**, 2. **Present**, 3. **ARMS**, 4. **Firing party**, 5. **FIRE THREE VOLLEYS**. When the escort is larger than one platoon, a platoon is designated as the firing party, the front rank only executing the firing. The firing party fires three volleys of blank cartridges, assumes the position of **Ready**, (see Chapter 2) and remains in this position until the conclusion of *Taps*.

(2) *Pallbearers.*—Come to attention at the command of the escort commander and salute at his command **Arms** following **Present**.

(3) *Other units.*—Are brought to **Attention** and to **Present** at the same time as the escort.

(4) *The clergy.*—Comes to attention, and if in uniform salutes.

(5) *The band leader.*—Comes to attention and salutes.

(6) *The personal flag of the deceased.*—If necessary, steps aside to permit bugler to take his post to sound taps, comes to attention and salutes.

(7) *The bugler.*—At the command **Arms** takes position at the head of the grave, salutes, sounds *Taps* immediately following the last volley, again salutes, faces about and rejoins his unit.

f. After the last note of Taps.—

(1) *The escort commander.*—Causes rifles of the firing party to be locked, brings the entire escort to the order, and after the color has been folded by the bodybearers, marches the escort and band in quick time to a suitable location for breaking up the formation. The band does not play during the march from the grave. At the first halt the rifles of the firing party are unloaded and inspected.

(2) *The pallbearers.*—Fall out and withdraw.

(3) *The flag bearer.*—Folds the flag and rejoins his unit.

(4) *Body bearers.*—Fold the color, turn it over to the officer in charge of the ceremony, and march away as may be directed.

(5) *Other units.*—March from the vicinity of the grave following the escort.

SECTION IX
MANUAL OF THE COLOR

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10-29. *USE AND CARE OF COLORS CARRIED BY TROOPS.*—*a.* The national and regimental (organization) flags carried by dismounted organizations are called the national color and the regimental (organization) color. The term color implies the national color. The term colors implies both the national color and regimental color.

NOTE.—The national and regimental flags carried by mounted or motorized organizations are called the national standard and the regimental standard.

b. Not more than one national color will be carried by a regiment or any part thereof when assembled as a unit.

c. Colors are cased when furled and placed within protective covering.

d. When an organization is in garrison or on board ship its colors, when not in use, are kept at the office or quarters of the commanding officer. In camp, between 8 a. m. and sunset, except during inclement weather, the colors, when not in use, are displayed uncased in front of the commanding officer's office, quarters, or tent. From sunset to 8 a. m. and during inclement weather they are cased and placed in the commanding officer's office, quarters, or tent.

e. The colors are escorted from and returned to the office or quarters of the commanding officer by the color guard, except in the ceremony *Escort to the national color* (for which procedure, see section VI).

f. When not in use, colors should be frequently unfurled and aired to prevent deterioration of the fabric.

g. The colors may be carried in any formation conducted at regimental headquarters in which two or more companies or batteries participate.

MANUAL OF THE COLOR

h. In separate organizations and commands entitled to colors and in battalions not stationed with their regimental headquarters, the colors are similarly cared for and displayed at the office, quarters, or tent of the commanding officer.

i. Battalions stationed with their regimental headquarters do not display the colors of their organizations.

j. Each separate (or ship's) landing-force battalion is equipped with a national color and an organization color. When participating independently in operations, ceremonies, or street parades ashore, each battalion will carry its own colors. When 2 or more such battalions are formed as a regiment only one national color and one organization color (the regimental colors) will be carried.

k. At regimental formations, the colors are posted with the designated color company. When the regimental formation is broken up, as at drill or field exercises, the colors join the regimental commander or are dismissed, if so directed.

l. When the organization color is draped in mourning, the mourning shall consist of a streamer of black crepe, 7 feet long and about 12 inches wide, with a bow knot tied in the center, the streamer attached at the knot to the ferrule below the spearhead. The two loops of the bow knot shall each be about 6 inches long.

10-30. *THE COLOR GUARD.*—a. The color guard consists of 2 petty officers, who are the color bearers, and 2 experienced nonrated men. The color bearers are unarmed, the nonrated men are armed with rifles or pistols. The senior color bearer carries the national color, and commands the color guard. He gives the necessary commands for movements and for rendering honors. The junior color bearer carries the regimental color. The regimental color is always placed on the left of the national color in whatever direction they face. When only the national color is carried the color guard will include only 1 color bearer.

b. The color guard is formed and marched in one rank at close interval, the color bearers in the center. The color guard does not execute *To the rear march, Right (left) face, About face, or Fix bayonets*. When the unit to which it is attached moves to the rear for short distances, the color guard, at the command of the senior color bearer, executes *Column right (left)* twice, marches to the new line, again executes *Column right (left)* twice, and halts in its proper place. When the unit to which it is attached marches to the flank in column, the color guard executes *Column right (left)* instead of *Right (left) face*.

THE COLOR GUARD

c. The color guard does not execute the loadings and firings. In rendering honors, the guard executes all the required movements in the manual; in drill, it executes all movements unless otherwise directed.

d. At the command of the senior color bearer the nonrated men of the color guard present arms or, if armed with the pistol, execute the hand salute, on receiving and parting with the colors.

e. Having received the colors, the senior color bearer conducts the guard to its proper position before the color company, as outlined in subpar. f below. Having parted with the colors the guard is dismissed by the senior color bearer.

f. At drills and ceremonies in which the colors are to participate, except *Escort of the national color*, the colors are received by the color company prior to the formation of the battalion with the following ceremony: The color company is formed, its company commander facing the front. The color guard, conducted by the senior color bearer, approaches from the front and halts at a distance of 10 paces from the company commander. The company commander then faces about, brings the company to the present, faces to the front, salutes, again faces about and brings the company to the order. The nonrated men of the color guard execute present and order arms with the color company. The color guard is then marched by the senior color bearer directly to its post as indicated. When the color company joins the battalion, the color guard takes its appropriate post in the battalion formation. When the color bat-

MANUAL OF THE COLOR

talion joins the regiment, the color guard takes its appropriate post in the regimental formation. The color is received by organizations smaller than a company (funeral escort) in the manner prescribed above. When the color joins the color company, it takes post on the left when the company is in line or mass and in rear when it is in column.

g. When it is desired to dismiss the color guard at the conclusion of a drill or ceremony in which the colors have participated, the color guard proceeds from its position and halts 10 paces in front of and facing the company commander of the color company. The company commander then faces about, brings the company to the present, faces to the front, salutes, again faces about and brings the company to the order. The nonrated men of the color guard execute present and order arms with the color company. The color guard then escorts the colors to the office, quarters, or tent of the commanding officer. The color guard is dismissed from organizations smaller than a company (funeral escort) in the manner prescribed above.

h. During marches, if the colors are with the troops, they are habitually carried cased unless otherwise directed.

i. In campaign prior to engagement of the organization, and upon direction of the commanding officer, the colors are stored with the organization baggage under guard of one color bearer. The other color bearer remains with organization headquarters.

10-31. *SALUTES BY THE REGIMENTAL COLOR.*—*a.* The regimental color salutes in all military ceremonies while the *National Anthem* or *To the Color* is being played and when rendering honors to a flag or general officer, but in no other case.

b. If marching, the regimental color salutes when at 6 paces from the person entitled to the salute and resumes the carry when 6 paces beyond him.

c. The national color renders no salute.

d. In passing in review the color guard executes eyes right at the command of the senior color bearer, who commands: 1. **Eyes**, 2. **Right**, and 1. **Ready**, 2. **FRONT** at the saluting distances prescribed in subpar. *b* above. To a flag or general officer, the regimental color salutes at the command **Right**, and resumes the carry at the command **Front**. The man on the right flank does not execute eyes right.

10-32. *POSITION OF THE COLOR AT THE CARRY.*—*a.* At the carry, the heel of the pike rests in the socket of the sling; the

POSITION OF THE COLOR AT THE ORDER

right hand grasps the pike at the height of the shoulder; the pike is inclined slightly to the front.

b. The carry is the habitual position when the troops are at the right or left shoulder, present, or trail arms. The color guard being armed with pistols or rifles, the carry is assumed at the command **Right shoulder (Left shoulder, Port, Trail), ARMS**, or at any command for movement; and is brought to the order at the command **Order ARMS**.

10-33. *POSITION OF THE COLOR AT THE ORDER.*—At the order, the heel of the pike rests on the ground on line with and touching the toe of the right shoe. The right hand at a convenient place on the pike, clasps it with the thumb, back of the hand to the right, and holds it in a vertical position.

10-34. *POSITION OF THE COLOR AT PARADE REST.*—*a.* Executed similarly as when armed with the rifle, except that the position of the color and right arm remains as in order arms.

b. The **order** is resumed at the command **Attention**.

c. The **order** and **parade rest** are executed with the troops.

10-35. *POSITION OF THE REGIMENTAL (ORGANIZATION) COLOR AT THE COLOR SALUTE.*—*a.* This position is assumed from the carry by slipping the right hand up the pike to the height of the eye, then lowering the pike by straightening the arm to the front.

b. If executed from the **order**, the position of **carry** is first assumed and then the color salute executed. The national color remains at the **carry**.

10-36. *POSITION OF COLORS DURING MANUAL OF ARMS.*—The colors habitually remain at the **order** during the execution of the manual of arms.

SECTION X

MANUAL OF THE SWORD

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10-37. *GENERAL RULES.*—*a.* Officers armed with the sword and enlisted men armed with the cutlass or sword execute the manual in the same manner. Where applicable, the provisions of this section relating to the sword also include the cutlass.

b. The officers' sword scabbard is attached to the belt by the sword slings and hooked to the belt by a ring, the edge of the sword blade to the rear.

c. The enlisted men's sword scabbard is carried suspended from the belt by a frog, the edge of the sword blade to the front.

d. All commands to troops under arms are given with the sword drawn.

e. In general, on all duties under arms, officers and men armed with the sword, draw and return sword with the commander of the unit to which attached without command.

f. Being at **present swords**, officers and men execute **order swords** at the command **Order arms**. If the command be other than **Order arms**, they execute **carry sword** at the command of execution and retain this position until the command **Order** or **Present arms** is given.

g. An officer or man with sword drawn habitually assumes the position of **carry sword** under the following conditions:

(1) When addressing or being addressed by an officer senior to himself.

(2) When in ranks, at the preparatory command for marching.

(3) Deleted.

(4) When in formation with troops under arms before and while giving commands to his unit.

MANUAL OF THE SWORD

(5) While marching at attention, or facing.

(6) While changing position at quick time.

h. In marching with the sword at the **carry** the arms are swung about 6 inches to the front and about 3 inches to the rear of the body.

i. In marching in **double time**, the sword is carried diagonally across the breast, edge to the front, the left hand steadying the scabbard.



(A) *Draw.*



(B) *SWORD.*



(C) *Position of carry.*

FIGURE 10.—1. *Draw*, 2. *SWORD*.

j. The sword will be drawn by officers and men so armed at all times when in formation with troops under arms, except when **at rest**, **at ease**, or when marching at **route step** or **at ease**.

10-38. *TO DRAW AND CARRY SWORD.*—The sword being sheathed: 1. ***Draw***, 2. ***SWORD***. At the first command, grasp the scabbard with the left hand at the upper band, turn the guard to the front, seize the grip with the right hand, and draw the blade 6 inches out of the scabbard, pressing the scabbard against the thigh with the left hand (see fig. 10 (A)). At the second command, draw the sword quickly, raising the arm to its full extent, at an angle

THE SWORD KNOT

of about forty-five degrees, the sword in a straight line with the arm, edge down; drop the left hand by the side (see fig. 10 (B)). After a slight pause bring the back of the blade against the shoulder seam of the coat, the blade vertical, back of the grip to the rear, the arm nearly extended, the thumb and forefinger embracing the lower part of the grip, the thumb against the thigh, the fingers joined behind the end of the hilt. This is the position of **carry**. (See fig. 10 (C).)

10-39. *THE SWORD KNOT*.—*a*. When the sword knot is worn, the right wrist may be placed in it before grasping the grip.

b. When publishing the orders, the sword is held suspended from the right wrist by the sword knot, which may be placed on the wrist before drawing the sword and taken off after returning it.

c. Enlisted men not provided with the sword knot, return sword prior to reading orders or calling the roll, unless this can be done without reference to a roster of the company or unit concerned.

10-40. *TO PRESENT SWORD OR SALUTE*.—*a*. Being at the **carry** or **order**: 1. **Present**, 2. **SWORD** (or **ARMS**) or 1. **Eyes**, 2. **RIGHT (LEFT)**. At the first command, carry the sword to the front, point up, edge to the left, raising the hand as high as the neck and six inches in front of it, the thumb on the left of the grip, elbow close to the body, the blade inclined slightly to the front (see figs. 11 (A) and (B)). At the second command, drop the point of the sword near the ground by extending the arm, so that the right hand is brought to the side of the right thigh, the thumb on the left of the grip, the blade inclining downward and to the front, edge to the left (see fig. 11 (C)).

b. When marching, at the command **Eyes right (left)**, **present sword** will be executed without swinging the right arm.

c. To salute with the sword, **present sword** is executed when 6 paces from the person saluted or at the nearest point of approach, if more than 6 paces. The second position is held until the person saluted has passed or the salute is returned, or at the command **Front**. The sword is then returned to the **order** or **carry** if at a halt, or to the **carry** if on the march.

10-41. *TO ORDER SWORD*.—*a*. Being at the **carry** (or **present**): 1. **Order**, 2. **SWORD** (or **ARMS**). At the second command, drop the point of the sword to the front on the ground, edge down, thumb on the back of the grip, the arm hanging naturally by the side (see fig. 12).

MANUAL OF THE SWORD



(A) *Present.*



(B) *Present.*



(C) *SWORD (or ARMS).*

FIGURE 11.—1. *Present*, 2. *SWORD (or ARMS).*



FIGURE 12.—Position of *order*.

TO EXECUTE PARADE REST

b. In executing the **carry** from **present** while marching, the sword is first turned to the position of **order**, but with the point of the sword about 3 inches from the ground.

10-42. *TO EXECUTE PARADE REST.*—*Being at order sword:* 1. **Parade**, 2. **REST**. At the command **Rest**, move the left foot 12 inches to the left of the right foot, keeping the legs straight, so that the weight of the body rests equally on both feet. Place the left hand behind the body, resting in the small of the back, palm to the rear. At the command **Attention** resume the position of **attention**.



FIGURE 13.—Position of parade rest.



FIGURE 14.—Second position of return sword.

10-43. *TO RETURN SWORD.*—*a. Officers' sword.*—*Being at the order or carry:* 1. **Return**, 2. **SWORD**. At the first command, execute the first motion of **present sword**, at the same time grasp the scabbard at the upper band with the left hand and turn its rear edge to the front. At the second command, lower the point of the blade, describing a semicircle to the left; turn the head slightly down and to the left, fixing the eyes on the opening of the scabbard, insert the point, guiding it with the thumb and forefinger of the left hand (see fig. 14); look to the front; return the sword quickly; turn the edge of the sword to the rear, and drop both hands to the sides.

b. Enlisted men's sword.—Executed as prescribed for the officers' sword except that the rear edge of the scabbard is not turned to the front.

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MANUAL OF THE GUIDON

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10-44. *CARE AND USE*.—The guidon is a company emblem. The care and use of the guidon are governed by the following general rules:

a. It is carried at ceremonies; on other occasions it is carried only when prescribed by the commanding officer.

b. In garrison it is kept in the company office when not carried in formation.

c. In camp between morning and evening colors, it is displayed at the head of the company street or in front of the company office, except during inclement weather and when carried in formation.

d. On the march the guidon is with the company baggage or left at the company office should the baggage not be carried.

e. In combat the guidon is always with the company baggage.

f. The guidon bearer is a specially selected enlisted man designated by the company commander.

10-45. *GENERAL RULES*.—*a.* The guidon is brought to **Present arms (guidon salute)**, **Parade rest**, and to the **Order** with the company. At the command of execution of other movements of the manual, the guidon is brought to the **Carry** except for the execution of the manual at parades.

MANUAL OF THE GUIDON

b. When executing the **Facings**, **Side step**, and **Alignments**, the guidon is held at **Carry guidon**.

c. When marching at **route step** or at **ease**, the lance is held by either hand at the position of **carry**.

d. Unless otherwise prescribed, the guidon is brought to the carry at the command of execution for marching in quick time.

e. The guidon is brought to the position for **double time** at the preparatory command for marching in double time (see par. 10-54).

f. The bearer of the personal flag of a flag or general officer complies with the manual of the guidon.

10-46. **ORDER GUIDON**.—The lance of the guidon is held vertically in the right hand, between the thumb and forefinger, back of hand to the right, arm extended downward, lance resting in the hollow of the shoulder, ferrule on the ground on a line with and touching the toe of the right shoe.

10-47. **BEING AT ORDER GUIDON, TO CARRY GUIDON**.—Grasp the lance with the left hand opposite the right elbow and raise the lance 6 inches, permitting it to slide through the right hand. Cut the left hand smartly to the side; this is the position of carry guidon.

10-48. **BEING AT CARRY GUIDON, TO ORDER GUIDON**.—Lower the lance to the ground, allowing it to slide through the right hand, and assume the position of order guidon.

10-49. **BEING AT ORDER GUIDON, TO EXECUTE PARADE REST**.—Executed in the same manner as with the rifle.

10-50. **BEING AT PARADE REST, TO ORDER GUIDON**.—Executed in the same manner as with the rifle.

10-51. **BEING AT CARRY OR ORDER GUIDON, TO EXECUTE GUIDON SALUTE (PRESENT ARMS)**.—*a.* Lower the guidon straight to the front, extending the right arm nearly horizontal until the lance, resting in the pit of the right arm, is horizontal. This movement is executed at the command of execution, **ARMS** of 1. **Present**, 2. **ARMS**.

b. In passing in review the guidon bearer executes **Eyes right** and **Present guidon** at the second movement of the company commander's sword salute (or at the first movement of the hand salute) and returns to **Front** and **Carry guidon** at the last movement of the company commander's salute.

TO CARRY OR ORDER GUIDON

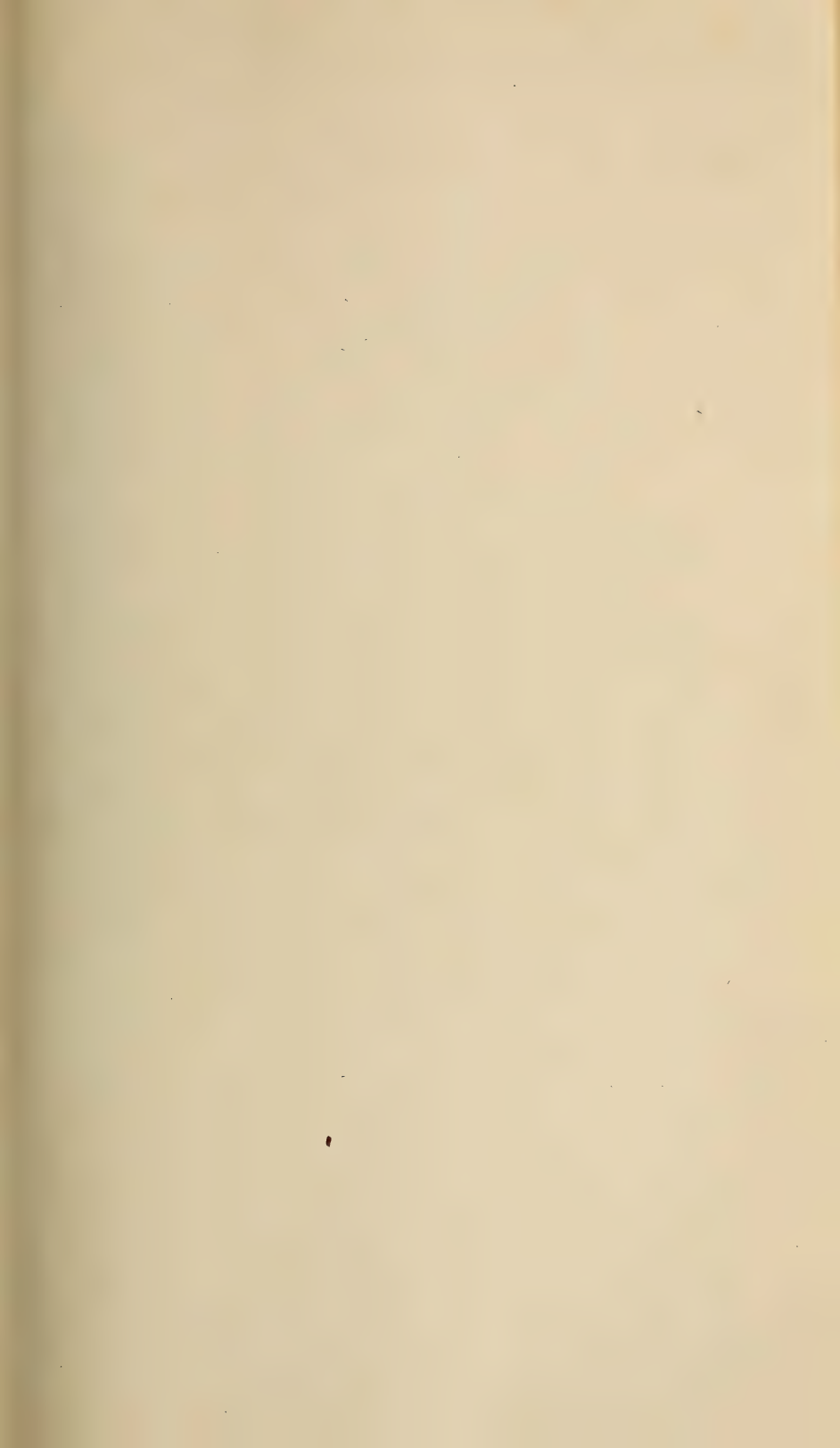
10-52. *BEING AT GUIDON SALUTE, TO CARRY OR ORDER GUIDON.*—*a. To carry guidon.*—Grasp the lance with the left hand, palm up, at a point just beyond the right hand. With the left hand carry the guidon up and back to the position of **Carry guidon**; at the same time the right hand, retaining its grasp on the lance, is lowered to the right side. Cut the left hand away smartly to the left side.

b. To order guidon.—The manual is executed as prescribed in paragraph *a* above except that when the guidon is brought to the vertical position, the lance is allowed, if necessary, to slide through the right hand, the left hand steadying the lance, until the guidon is in the position of **Order guidon**.

10-53. *INDIVIDUAL SALUTE BY GUIDON BEARER.*—Being at carry, order, or trail, bring the lance to a vertical position. Salute with the left hand. Left hand and arm in same relative position as when executing the rifle salute at order arms.

10-54. *AT DOUBLE TIME.*—The guidon is held diagonally across the body, the right hand grasping the lance at the position used at the carry, right forearm horizontal, elbow near the body, left hand grasping the lance opposite the junction of the neck and left shoulder.





LANDING-FORCE MANUAL

UNITED STATES NAVY

1938



CHAPTER 11

INTERIOR GUARD DUTY AND GUARD MOUNTING

(Reprinted 1941 with all changes up to and including No. 5)



UNITED STATES
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FOREWORD

The Landing-Force Manual, U. S. Navy, 1938, is published in nineteen chapters as follows:

- CHAPTER 1. INTRODUCTION.
- CHAPTER 2. INDIVIDUAL INSTRUCTION WITHOUT ARMS AND WITH ARMS (RIFLE, AUTOMATIC RIFLE, SUBMACHINE GUN, PISTOL, AND BAYONET).
- CHAPTER 3. DRILL, THE SQUAD, PLATOON, AND COMPANY.
- CHAPTER 4. FORMATIONS OF THE BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 5. CART DRILL.
- CHAPTER 6. DRILL, MACHINE GUN, CALIBER .30.
- CHAPTER 7. DRILL, THE SPECIAL-WEAPONS PLATOON (37-MM GUN AND 81-MM MORTAR).
- CHAPTER 8. DRILL, ARTILLERY.
- CHAPTER 9. THE INFANTRY PACK, AND DISPLAY OF EQUIPMENT AND CLOTHING.
- CHAPTER 10. CEREMONIES; AND MANUAL OF THE COLOR, SWORD, AND GUIDON.
- CHAPTER 11. INTERIOR GUARD DUTY AND GUARD MOUNTING.
- CHAPTER 12. MARCHES, SECURITY ON THE MARCH, AND OUTPOSTS.
- CHAPTER 13. TENT DRILL AND SHELTER.
- CHAPTER 14. FIELD SANITATION, PERSONAL HYGIENE, AND FIRST AID.
- CHAPTER 15. EXTENDED-ORDER EXERCISES, COMBAT PRINCIPLES OF THE RIFLE SQUAD AND PLATOON, AND COMBAT SIGNALS.
- CHAPTER 16. TACTICS AND TECHNIQUE OF THE RIFLE COMPANY AND INFANTRY BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 17. THE DEFENSE AND ATTACK OF CITIES, RIOT DUTY, AND NATIONAL DISASTERS.
- CHAPTER 18. PHYSICAL DRILL.
- CHAPTER 19. SMALL ARMS MARKSMANSHIP.

LANDING-FORCE MANUAL

UNITED STATES NAVY

CHAPTER 11

INTERIOR GUARD DUTY AND GUARD MOUNTING

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11-1. **DEFINITIONS.**—**Bugler of the guard:** Bugler or trumpeter detailed for duty with the guard to sound prescribed calls.

Commander of the Guard: (1) The senior officer detailed for duty with the guard, or, if there be none, the senior petty officer of the guard.

(2) The officer or petty officer in command of the guard.

Corporal of the guard: A petty officer of the main guard, officially known as corporal of the guard, detailed for duty in charge of a relief, or performing a similar function in a special guard.

Detail: One or more men designated for guard duty by a company or similar unit, such as a marine detachment on board ship or a ship's division. The combined details furnished by all such organizations constitute the guard.

Field officer of the day: An officer who is in general charge of, and who coordinates two or more interior guards, on a particular day or period of days—usually a field officer in the Marine Corps or lieutenant commander, commander, or captain in the Navy.

Guards: (1) **Full guard:** The ship's guard, less members excused by proper authority.

(2) **Guard of the day:** That part of the ship's guard on duty for the day.

(3) **Guard patrol:** One or more men detailed for special duty with the guard, such as making the rounds between sentry posts to increase security.

(4) **Interior guard:** A guard detachment charged with the protection of, and maintenance of order in a camp, garrison, or station,

GENERAL INFORMATION

as distinguished from outguards, which are employed to protect and defend tactical areas, as described in chapter 12.

(5) **Main guard:** The interior guard, less the special guard.

(6) **Ship's guard:** All officers and men designated to perform guard duty on board a ship, normally, the marine detachment.

(7) **Special guard:** That portion of the interior guard designated to perform guard duty of a special nature.

Guardhouse: (1) The location or shelter where the guard is assembled during its tour of duty.

(2) On shore the place where prisoners are sometimes confined.

Officer of the day: The officer who, as direct representative of the commanding officer, is in general charge, on a particular day or period of days, of the post routine, barracks, messes, the guard, and prisoners. On board ship the officer of the deck has a corresponding position of authority.

Officer of the guard: Any officer detailed for duty with the guard. The senior so detailed is commander of the guard. If none is detailed, the sergeant of the guard (senior petty officer) performs the duties of the commander of the guard, in addition to his other duties.

Post: (1) The place where troops are stationed ashore.

(2) Afloat, the ship on which the crew is serving.

(3) A fixed, limited locality, where a sentry stands watch.

Relief: A subdivision of the guard, consisting of a petty officer and sufficient nonrated men to man all prescribed sentry posts for one watch. Normally a guard has three reliefs.

Sergeant of the guard: The senior petty officer of the guard officially known as Sergeant of the Guard.

Supernumerary officer of the guard: (1) The officer detailed to relieve the commander of the guard, if necessary, during his tour of duty.

(2) An inexperienced officer detailed for instruction in guard duty.

Tour: (1) The time (usually 24 hours) during which a particular guard is on duty.

(2) The duty performed by members of the guard during this time.

Watch: The period from the posting of a sentry or relief, until the duty is properly turned over to the next sentry or relief, or the post is discontinued.

11-2. *GUARD DUTY ON BOARD NAVAL VESSELS.*—a. The regulations for interior guard duty as herein set forth, primarily apply to the organization, routine, orders, and instructions for interior guards serving on shore. On board ship, the spirit of these regu-

PURPOSE

lations will apply, modified as may be necessary to conform to service afloat. The terms employed, such as *Sergeant of the Guard*, *Corporal of the Guard*, etc., have special significance, and apply to petty officers performing these duties.

b. The following variations from guard duty ashore apply aboard ship:

(1) Marines normally perform all guard duty on ships having marine detachments. When there are no marines, guard duty, if required, is performed by such ship's division, or details from the deck divisions, as the commanding officer may direct, and is generally known as the seaman guard.

(2) The guard of the day is mustered only between morning and evening colors when honors may have to be rendered.

(3) Sentinels do not challenge.

(4) The guard does not raise and lower the colors.

(5) The guard, except the sentry on the brig post, is not responsible for the prisoners.

(6) The chief master at arms, or his authorized assistants have access to the prisoners at all times.

(7) The relief does not make the rounds of all posts as a unit when going on watch.

(8) The corporal of the guard visits sentinels at such times as may be prescribed by the commanding officer and as directed by the officer of the deck.

(9) There is no officer of the day. The officer of the deck has a corresponding function in his relation to the guard.

(10) There is no officer of the guard. However, all officers of the marine detachment or of the ship's guard are always on duty while on board ship, and are responsible for the functions and duties performed usually by the officer of the guard.

(11) There is no guard mounting, except in name. When held, it normally consists only of a muster and inspection.

11-3. *PURPOSE*.—Commanding officers, and commandants or commanding officers of shore stations or posts will establish and maintain an interior guard for the preservation of order, protection of property, and the enforcement of orders and regulations, except where the watchmen system of guard only is employed.

11-4. *CLASSIFICATION*.—The various elements of an interior guard, classified according to their purposes and the manner in which they perform their duties, are as follows:

a. The main guard.

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b. Special guards: Prisoner guards, train guards, boat guards, watchmen, patrols, etc.

11-5. *COMPOSITION*.—*a*. An interior guard will be of such strength and be detailed from a single unit or such units as the commanding officer may direct. It will be commanded by the commander of the guard, who is the senior officer on duty with the guard, or, if no officer be detailed for duty with the guard, by the sergeant of the guard.

b. The system of sentinels on fixed posts is of value in discipline and training because of the direct individual responsibility which is imposed and required to be discharged in a definite and precise manner. In order that guard duty may not, however, be needlessly irksome and interfere with tactical instruction, the smallest possible number of men will be detailed for guard. In time of peace, except on board ship, commanding officers may, as far as practicable, replace sentinels by watchmen.

11-6. *LENGTH OF TOUR*.—*a*. Members of the main guard will habitually be relieved every 24 hours. The length of the tour of enlisted men detailed on other guards will be regulated by the commanding officer.

b. When the command is small, or personnel is limited, interior guard duty may be performed by a running guard, preferably not less than five men to a post, each of whom is relieved after a four-hour watch. A relief is required to be in garrison (on board ship), fit for duty, four hours before its next watch.

11-7. *DATA FOR GUARD DETAILS*.—*a*. The commanding officer will cause to be published the necessary data relative to the new guard in sufficient time for commanders to make details from their organizations. This data should include directions relative to guard mounting, whether formal or informal, and prescribe the uniform to be worn.

b. If formal guard mounting is to be held, the adjutant, battalion chief petty officer, and band to attend will be designated by the commanding officer.

11-8. *NOTICE OF GUARD DETAILS*.—*a*. Within companies, guard details will be posted on bulletin boards as early as practicable.

b. Officers will be notified in person or by written orders, of their detail for guard. If practicable this notice should reach the officer concerned prior to noon of the day before his tour commences.

DETAIL OF OFFICERS

11-9. *DETAIL OF OFFICERS.*—*a.* At each station or post the commanding officer shall detail daily a commissioned officer of the command for duty as officer of the day (Art. 593 (1) NR). He will be in general charge of the post routine, barracks, messes, guard, and prisoners. On board ship the officer of the deck has a corresponding position of authority.

b. When more than one main guard is required for a command, an officer may be detailed as field officer of the day. He will coordinate the guards and act in accordance with instructions issued by the commanding officer.

c. A commissioned officer will be detailed as commander of the guard when, in the discretion of the commanding officer, such assignment is necessary and sufficient officers are available. When no commissioned officer is so detailed the duties of commander of the guard will be executed by the senior petty officer of the guard.

d. Inexperienced officers may be detailed as supernumerary officers of the guard for purposes of instruction.

e. Staff officers may, in the discretion of the commanding officer, be removed from the roster for guard.

SECTION II

DUTIES OF PERSONNEL

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11-10. *GENERAL*.—The responsibilities and duties of the various members of the guard are of special nature, accordingly, the duties of each not herein provided for should be prescribed in special orders issued by the commanding officer. Whenever practicable, these orders should be reduced to writing and made available to those concerned.

11-11. *COMMANDING OFFICER*.—The commanding officer, or his representative, receives the reports of the officers of the day immediately after guard mounting. He or his representative carefully examines the guard report (questioning the old officer of the day, if necessary, regarding his tour of duty), and then relieves him and gives the new officer of the day his instructions.

11-12. *OFFICER OF THE DAY*.—*a*. The officer of the day is responsible for:

(1) The proper performance of duty by the guard with which he marches on.

(2) The enforcement of all police regulations.

(3) The execution of all orders of the commanding officer relating to the safety and good order of the post.

b. His actual tour begins when he receives the instructions of the commanding officer after guard mounting and ceases when he has been relieved by the same authority. In case of emergency during the interval between guard mounting and reporting to the commanding officer, the officer of the day senior in rank assumes authority over both guards.

DUTIES OF PERSONNEL

c. The officer of the day will—

(1) In the absence of special instructions from the commanding officer, inspect the guard and sentinels at such times during the day and night as he may consider necessary, visiting the sentinels at least once between midnight and daylight.

(2) Prescribe patrols and visits of inspection to be made by officers and petty officers of the guard whenever he considers it necessary.

(3) Inform the commander of the guard of the presence in the post of any person entitled to the compliment from the guard.

(4) Take steps at once to insure the safety of life and public property and to preserve order in case of alarm of any kind, using the guard for this purpose.

(5) Take orders only from the commanding officer and field officer of the day in the performance of his duties, except that in case of an alarm of any kind and at a time of great danger, the senior line officer present is competent to give necessary orders to the officer of the day for the employment of the guard.

(6) Keep the guard informed as to his whereabouts at all times.

d. The old officer of the day will—

(1) In the absence of special instructions release, at guard mounting, all prisoners (other than general court-martial prisoners) whose sentences expire that day.

(2) Report to the commanding officer all cases of prisoners with no record of charges against them.

(3) Carefully examine the commander of the guard's report book before guard mounting and have any errors therein corrected. After having assured himself as to its correctness and completeness, he shall make the following entry over his signature: "I have personally examined this report and find it to be correct."

(4) Sign the report of the commander of the guard, entering thereon the hours he visited sentinels and such other data as may be directed by the commanding officer.

e. Both the old and new officers of the day after guard mounting will—

(1) Verify the count of prisoners and inspect the guardhouse and premises together.

(2) Report to the commanding officer or his representative as follows: On presenting themselves both salute. The old officer of the day standing on the right of the new then says, "Sir, I report as old officer of the day," and presents the guard report. As soon as the commanding officer or his representative notifies the old officer of the

COMMANDER OF THE GUARD

day that he is relieved, the latter salutes and retires. The new officer of the day again salutes and says, "Sir, I report as new officer of the day." After receiving his instructions he salutes and retires.

11-13. *COMMANDER OF THE GUARD.*—*a.* The commander of the guard is responsible for the instruction and discipline of the guard and for the general safety of the post as soon as the old guard marches away from the guardhouse. While both guards are at the guardhouse, the commander of the guard senior in rank is responsible that the proper action is taken in case of emergency.

b. The commander of the guard will—

(1) Receive and obey orders of the commanding officer, field officer of the day, and officer of the day.

(2) Report to the officer of the day all guard orders not received from him.

(3) Transmit to his successor all instructions and information relating to his duties.

(4) See that all members of the guard are correctly instructed in their orders and duties, and that they understand and properly perform them.

(5) Question his petty officers and sentinels relative to the instructions that they may have received from the old guard.

(6) See that patrols properly perform their duties.

(7) See that visits of inspection are made as directed by the officer of the day.

(8) See that all sentinels of a relief are habitually relieved every 2 hours except as otherwise prescribed.

(9) See that proper calls are sounded at the hours prescribed by the commanding officer.

(10) See that all general and special orders are posted in the guardhouse, and in sentry boxes or other sheltered places on each post to which they apply, and to which members of the guard concerned have constant access.

(11) Inspect the guard at reveille and evening colors and at such other times as may be necessary to assure himself that the men are in proper condition to perform their duties, and that their arms and equipment are in proper condition.

(12) Inspect the guardhouse and brig at least once during his tour and at such other times as he may consider necessary.

(13) Inspect all meals sent to the guardhouse or prepared therein, and see that the quantity and quality of food are satisfactory.

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(14) Visit each relief at least once while it is on post and at least one of these visits will be made between midnight and daylight.

(15) Prepare the guard for inspection by other officers.

(16) In case of alarm of any kind, cause the guard to be formed immediately, cause the commanding officer and officer of the day to be notified, and the proper call to be sounded.

(17) Send a patrol to a sentinel's post should the sentinel call, "The guard," and, except on board ship, make the patrol as strong as possible should the sentinel discharge his piece three times in rapid succession. There should always be an officer or petty officer and two nonrated men of the guard at the guardhouse in addition to the sentinels there on post.

(18) Remain constantly with the guard except while visiting patrols or necessarily engaged in the performance of duty. He will be allowed a reasonable time for meals by the commanding officer.

(19) Inform the next in command of his destination and probable time of return when leaving his post for any reason.

(20) Notify the officer of the day at once should a member of the guard be taken sick or for any reason leave his post or the guard.

(21) Require members of the guard, on leaving the guardhouse, to be properly equipped and armed according to the character of the service in which engaged or as directed by the commanding officer. He may permit them while at the guardhouse to remove their head-dress, overcoats, and gloves.

(22) Cause the details to be made (ashore) for raising and lowering the flag at morning and evening colors.

(23) See that the colors are kept in the best possible condition and that they are never handled except in the performance of duty.

(24) Report to the officer of the day when colors are not in serviceable condition.

(25) Detain at the guardhouse all suspicious persons or parties attempting to pass a sentinel's post without authority, reporting the circumstances to the officer of the day for necessary action.

(26) Be responsible for the security of the prisoners under charge of the guard. The commander of the guard becomes responsible for them after their number has been verified and they have been turned over to the custody of his guard. The prisoners will be verified and turned over to the new guard without parading them unless the commanding officer or officer of the day directs otherwise.

SERGEANT OF THE GUARD

(27) Cause the petty officers of the old and new reliefs, immediately before each relief goes on post, to verify together the number of prisoners who should then be at the guardhouse.

(28) Cause any person sent to the guardhouse for confinement to be searched for unauthorized articles in his possession.

(29) See that the sentences of the prisoners under his charge are strictly executed.

(30) Report all confinements to the officer of the day without delay.

(31) Report to the old officer of the day at guard mounting all cases of prisoners whose terms of sentence expire on that day, and also all cases of prisoners concerning whom no statements of charges have been received.

(32) Enter a report of his tour of duty in the guard report book and on completion of his tour present it to the officer of the day together with all passes turned in at the guardhouse.

11-14. *SERGEANT OF THE GUARD.*—*a.* The senior petty officer of the guard receives and obeys orders only from the commanding officer, field officer of the day, officer of the day (officer of the deck), and officers of the guard. If there is no officer of the guard he will perform the duties prescribed for the commander of the guard, in addition to his regular duties.

b. The sergeant of the guard, both ashore and afloat, will—

(1) Have general supervision over the other petty officers, the buglers, trumpeters, and nonrated men (except orderlies) of the guard, and be thoroughly familiar with their orders and duties.

(2) Acknowledge receipt of, and be directly responsible for the property on charge to the guard and see that it is properly cared for.

(3) Report any negligence in care of public property to the commander of the guard.

(4) List all articles taken out by working parties and see that all such articles are returned in good condition.

(5) If the members of the guard are not assigned to relief and post by higher authority, then immediately after guard mounting, prepare duplicate lists of the names of the petty officers, buglers or trumpeters, and nonrated men of the guard, showing the reliefs and posts or assignments of each. He will give one list to the commander of the guard and retain the other.

(6) See that all reliefs are turned out at the proper time.

(7) See that the corporals of the guard thoroughly understand and are prompt and efficient in the discharge of their duties.

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(8) Make such inspections and see that the other petty officers of the guard make such inspections and patrols as may be prescribed by superior authority.

(9) Turn over his duties to the next ranking petty officer before absenting himself from the guardhouse.

(10) Take the place of the corporal of the guard whose relief is on post or designate another petty officer to do so, should the corporal of the guard be called away from the guardhouse.

(11) Be responsible for the proper police of the guardhouse, including the area around it.

(12) Report as may be directed by the commanding officer, to the adjutant's or executive officer's office for the guard report book.

(13) Report to the commander of the guard or, if none be detailed, to the officer of the day (or officer of the deck) :

(a) All instructions and orders not received from them.

(b) Any suspicious or unusual occurrence that comes to his notice.

(c) The approach of an armed party.

(d) All persons arrested by the guard.

(14) Form the guard whenever a formation is necessary.

c. In addition to the duties enumerated above, the sergeant of the guard of an interior guard ashore will—

(1) Be in direct charge of the prisoners and responsible for their security except during such times as they are under charge of the prison guard.

(2) Keep the keys of the guardroom and cells in his personal possession while at the guardhouse.

(3) Turn over the keys to the petty officer who takes his place should he leave the guardhouse.

(4) Count the knives, forks, and other utensils given to the prisoners with their food and see that none remain in their possession.

(5) See that no unauthorized articles are conveyed to the prisoners.

11-15. *CORPORAL OF THE GUARD.*—*a.* The corporal of the guard receives and obeys orders only from the commanding officer, field officer of the day, officer of the day (officer of the deck), officers of the guard, and petty officers of the guard senior to himself.

b. The corporal of the guard both ashore and afloat will—

(1) If the members of the guard are not assigned to reliefs and posts by higher authority, immediately after the division of the guard into reliefs, assign the members of his relief to posts by number. Such assignment will not be changed during the same tour of guard except by direction of the commander of the guard or higher authority.

CORPORAL OF THE GUARD

He should assign the most experienced men to posts at the guardhouse and at remote or responsible places.

(2) Make a list of the members of his relief, including himself. This list will show the number of the relief, the post to which each man is assigned, and his name and organization. The list will be made in duplicate, one copy given to the sergeant of the guard as soon as completed and the other retained by himself.

(3) Instruct the members of his relief regarding their orders and duties.

(4) Post and relieve sentinels of his relief.

(5) Thoroughly acquaint himself with all orders of every sentinel of his relief, and see that each understands, carries out, and correctly transmits such orders in detail to his successor.

(6) Call his own relief and cause its members to fall in promptly should the guard be turned out. Tents or bunks in the same vicinity are designated for the reliefs so that all members of each relief may be found and turned out in the shortest time and with the least confusion.

c. The corporal of the guard, both ashore and afloat, whose relief is on post will—

(1) Take post near the entrance of the guardhouse, or as may be directed aboard ship. He will not fall in with the guard when it is formed. There will be at least one petty officer constantly on the alert at the guardhouse, usually the petty officer whose relief is on post.

(2) Report at once to the commander of the guard any violation of regulations, or any unusual occurrence which is reported to him or which comes to his notice. Aboard ship such report is made to the officer of the deck.

(3) Have his rifle or other prescribed arm constantly with him.

(4) Wake the petty officer whose relief is next on post in time for the latter to verify prisoners, form his relief, and post it at the proper hour.

(5) Notify the sergeant of the guard (or officer of the deck on board ship) whenever it becomes necessary for him to leave his post.

(6) Go at once to any sentinel who may call, "Corporal of the guard, Post number —."

(7) Promptly notify the commander of the guard should a sentinel call, "The guard."

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(8) If a sentinel calls "Relief," relieve him by the man next for duty on that post. If the sentinel is relieved for a short time only, post him again as soon as the necessity for his relief ceases.

(9) Examine persons or parties detained by a sentinel. If there is reason to believe they have no authority to cross the sentinel's post, conduct them to the commander of the guard.

(10) Arrest all suspicious and disorderly persons and those taken in the act of committing crimes. All such persons are at once conducted to the commander of the guard, or if aboard ship, to the officer of the deck.

d. Ashore in addition to the duties enumerated in subpar. c above, the corporal of the guard whose relief is on post will—

(1) Between evening and morning colors, call, "Turn out the guard," announcing the title of the officer, whenever so directed by an officer entitled to inspect the guard (see par. 11-34a). Then, if not otherwise ordered, he will salute and return to his post.

(2) See that no person enters the guardhouse or crosses the posts of the sentinels posted there, except by proper authority.

(3) Advance parties approaching the post of the guard at night in the same manner as sentinels on posts advance like parties. Thus at night when sentry No. 1 at the guardhouse challenges a person or party and repeats the answer (see par. 11-18), the corporal, advancing at port arms, if armed with a rifle, says, "Advance (so-and-so) to be recognized." The person being duly recognized as one having authority to pass, the corporal says, "Advance (so-and-so)," repeating the answer to the challenge of the sentinel. When persons of different rank approach the guardhouse from different directions at the same time, the senior will be advanced first. Corporals armed with the pistol will take the position of raise pistol while advancing a person or party at night.

(4) Challenge all suspicious persons or parties he may observe between evening and morning colors, first halting his patrol or relief if either be with him. He will advance such persons or parties in the same manner as do sentinels on post.

11-16. *BUGLERS OF THE GUARD (INTERIOR GUARD ASHORE).*—*a.* As many buglers of the guard will be detailed as the commanding officer may direct.

b. The buglers of the guard will—

(1) Remain at the guardhouse during their tour of duty, unless otherwise directed by the commanding officer.

(2) Sound calls as prescribed by the commanding officer.

NONRATED MEN OF THE GUARD

(3) When the guard is turned out for national or regimental colors or standards, sound *To the Color (Standard)* when the guard presents arms, or if turned out for any person entitled thereto, the march or flourishes prescribed in Chap. 5, NR.

11-17. *NONRATED MEN OF THE GUARD*.—*a.* Nonrated men are normally assigned to reliefs by the commander of the guard and to posts by the corporal of their reliefs. They are not changed from one relief to another during the same tour of guard duty except by the commander of the guard or higher authority.

b. Nonrated men of the guard must be familiar with the general orders for sentinels and with all special orders applying to their particular posts.

c. Whenever the guard or a relief is dismissed, each member not at once required for duty will place his rifle, if so armed, in the arm rack or stack and will not remove it therefrom unless required in the performance of some duty.

d. Members of the main guard (guard of the day), except orderlies, will not leave the immediate vicinity of the guardhouse without permission from the commander of the guard. Permission to leave will not be granted except in cases of necessity.

e. Members of the main guard (guard of the day), except orderlies, will not remove their equipment or clothing without permission from the commander of the guard.

11-18. *GUARDHOUSE SENTINEL (INTERIOR GUARD ASHORE)*.—*a.* The sentinel at the guardhouse (No. 1) is required to memorize the following:

(1) *Between morning and evening colors to turn out the guard for all persons designated by the commanding officer, for all colors and standards not cased, and for all armed parties approaching my post except troops at drill and reliefs and detachments of the guard.*

(2) *At night, after challenging any person or party, to advance no one, but call the corporal of the guard, repeating the answer to the challenge.*

b. After receiving an answer to his challenge, the sentinel calls, "Corporal of the guard (so-and-so)," repeating the answer to the challenge. He does not in such cases repeat the number of his post. He remains in the position assumed in challenging until the corporal has recognized or advanced the person or party challenged, when he resumes walking his post. If the person or party is entitled to the

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salute, he salutes, and resumes walking his post as soon as the salute has been acknowledged.

c. The sentinel is notified of the presence in the post of persons entitled to the compliment from the guard.

d. The following examples illustrate the manner in which the sentinel at the post of the guard turns out the guard:

(1) At the approach of the national color (Secretary of the Navy, general officer, commanding officer, officer of the day, etc.), the sentinel will call, "Turn out the guard, national color (Secretary of the Navy, general officer, commanding officer, officer of the day, etc.)." If the person named by the sentinel does not desire the guard formed, he will salute, whereupon the sentinel will call, "Never mind the guard." If the guard is already formed he will nevertheless call, "Turn out the guard," announcing the title of the person, if the person is senior to the one already at the guardhouse.

(2) At the approach of an armed party, the new guard at guard mounting, or a military funeral, the sentinel will call, "Turn out the guard, armed party." After having called, "Turn out the guard, armed party," the sentinel will never call, "Never mind the guard."

e. In case of fire or disorder or the presence of suspicious or disorderly persons in the vicinity of his post, the sentinel will call the corporal of the guard and report the facts to him.

f. When the brig is part of the guardhouse, sentry No. 1 at the guardhouse is directly charged with guarding the prisoners except when they have been turned over to the prisoner guard.

(1) *He will allow none to escape.*

(2) *He will allow none to cross his post from the guardhouse except when passed by an officer or petty officer of the guard.*

(3) *He will allow no one to communicate with prisoners without permission from proper authority.*

(4) *He will promptly report to the corporal of the guard any suspicious noise made by prisoners.*

(5) *He will be prepared to tell whenever asked how many prisoners are in the guardhouse and how many are out at work and elsewhere.*

(6) *Whenever prisoners are brought to his post he will halt them and call, "Corporal of the guard, (so many) prisoners."*

(7) *He will not allow prisoners to pass into the guardhouse until the corporal of the guard has responded to the call and ordered him to do so.*

11-19. *ORDERLIES*.—a. When so directed by the commanding officer, the officer who inspects the guard at guard mounting will

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select from the members of the new guard an orderly for the commanding officer and such other orderlies and color sentinels as may be required. For these positions the men will be chosen who are most correct in the performance of duty and in military bearing, neatness in person and clothing, and whose arms and equipment are in the best condition. Clothing, arms, and equipment must conform to regulations. If there be any doubt as to the relative qualifications of two or more men, the inspecting officer will cause them to fall out at the guardhouse and form in line in single rank. He will then select the most proficient by testing them in drill. The commander of the guard will be notified of the selection.

b. When directed by the commander of the guard to fall out and report, an orderly will give his name and company to the sergeant of the guard and, leaving such arms and equipment at his quarters as are not specified for orderlies, will proceed at once to the officer to whom he is assigned, reporting, as for example, "Sir, Private (Seaman) (so-and-so), Company (so-and-so), reports as orderly."

c. Orderlies while on duty as such are subject only to the orders of the commanding officer or of the officer to whom they are ordered to report.

d. When an orderly is ordered to carry a message he must be careful to deliver it exactly as it was given him.

e. His tour of duty ends when he is properly relieved by the orderly selected from the guard relieving his own.

11-20. *COLOR SENTINELS*.—Guards may be furnished for the colors when uncased and posted out of doors on shore. For this purpose guards are detailed and governed by the same regulations as apply to other members of the main guard.

11-21. *WATCHMEN AND SPECIAL GUARDS (ASHORE)*.—

a. Watchmen.—Enlisted men may be detailed as watchmen and as such receive their orders and perform their duties as the commanding officer may direct.

b. Special guards.—Special guards will generally be mounted informally. Sentinels will be posted and relieved according to the general principles of sentinels of the main guard unless circumstances make this impracticable. Sentinels of special guards armed with the rifle will salute by executing rifle salute.

c. When enlisted men are employed as watchmen or special guards they are formed into one or more detachments under the command of a petty officer, and with sufficient petty officers to function inde-

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pendently. The commanding officer makes such rules for the watchmen system as will meet the requirements of the post. Tours of not longer than 6 or 8 hours, with change of posts not more than every 6 days, may be considered normal. Sufficient supernumeraries must be provided so that watchmen will be off duty one day in each seven. Old and experienced men should be used for this service.

SECTION III

ORDERS

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11-22. *ORDERS FOR SENTINELS*.—Orders for sentinels are of two classes: General orders and special orders. General orders apply to all sentinels. Special orders relate to particular posts and duties.

11-23. *GENERAL ORDERS*.—All sentinels are required to memorize the following:

My general orders are—

1. *To take charge of this post and all Government property in view.*

2. *To walk my post in a military manner, keeping always on the alert and observing everything that takes place within sight or hearing.*

3. *To report all violations of orders I am instructed to enforce.*

4. *To repeat all calls from posts more distant from the guard-house than my own. (Normally does not apply on board ship.)*

5. *To quit my post only when properly relieved.*

6. *To receive, obey, and pass on to the sentinel who relieves me all orders from the commanding officer, field officer of the day, officer of the day (officer of the deck), and officers and petty officers of the guard only.*

7. *To talk to no one except in line of duty.*

8. *To give the alarm in case of fire or disorder.*

9. *To call the corporal of the guard in any case not covered by instructions.*

10. *To salute all officers, and all colors and standards not cased.*

11. *To be especially watchful at night and, during the time for challenging, to challenge all persons on or near my post, and to allow no one to pass without proper authority. (Normally does not apply on board ship.)*

11-24. *REGULATIONS RELATING TO THE GENERAL ORDERS*.—a. No. 1: *To take charge of this post and all Government property in view.*

ORDERS

(1) All persons of whatever rank in the service are required to respect sentinels and members of the guard in the performance of their duties.

(2) A sentinel will report immediately to the corporal of the guard by telephone or other means, every unusual or suspicious occurrence noted.

(3) He will arrest and turn over to the corporal of the guard all suspicious persons, all parties involved in a disorder occurring on or near his post, and all parties who attempt to enter the post at night without authority.

(4) The number, limits, and extent of his post will constitute part of the special orders of a sentinel. The limits of his post will be so defined as to include every place to which he is required to go in the performance of his duties.

b. No. 2: To walk my post in a military manner, keeping always on the alert and observing everything that takes place within sight or hearing.

(1) A sentinel is not required to halt and change the position of his rifle on arriving at the end of his post, nor to execute to the rear precisely as prescribed in chapter 2, but may face about while walking, in the manner most convenient to him, and at any part of his post best suited to the proper performance of his duties.

(2) He carries his rifle on either shoulder and, when exposed to wet or severe weather, may carry it in a position to best protect it.

(3) Sentinels, when in sentry boxes, may stand at ease. Sentry boxes will be used in wet weather only, or at times when specially authorized by the commanding officer.

(4) In very hot weather and only on the express authority of the officer of the day or the commander of the guard, sentinels may stand at ease on their posts provided they can effectively discharge their duties in this position.

c. No. 3: To report all violations of orders I am instructed to enforce.

(1) Normally, a sentinel will report a violation of orders when he is inspected or relieved; however, if the case is urgent, he will arrest the offender, if necessary, and call the corporal of the guard.

d. No. 4: To repeat all calls from posts more distant from the guardhouse than my own.

(1) To call the corporal of the guard for any purpose other than relief, fire, or disorder (see subpars. *e* and *h* below), a sentinel will call, "Corporal of the guard, Number —."

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(2) In no case should a sentinel call, "Never mind the corporal," nor will the corporal heed such call if given.

e. No. 5: To quit my post only when properly relieved.

(1) If relief becomes necessary by reason of sickness or any cause, a sentinel will call, "Corporal of the guard, Number —, relief."

(2) Whenever a sentinel is to be relieved he will halt and, with rifle at right shoulder arms, face toward the relief when it is 30 paces from him. He will come to port arms with the new sentinel, and in a low tone transmit to him all the special orders relating to the post and any other information which will assist him to better perform his duties.

(3) If armed only with the pistol, he will assume the position of attention while being relieved except that during the hours for challenging he will hold his weapon at raise pistol.

f. No. 6: To receive, obey, and pass on to the sentinel who relieves me all orders from the commanding officer, field officer of the day, officer of the day (officer of the deck), and officers and petty officers of the guard only.

(1) During his tour of duty a sentinel is subject to the orders of the commanding officer, field officer of the day, officer of the day (officer of the deck), and officers and petty officers of the guard only; but any officer is competent to investigate apparent violations of regulations by members of the guard.

(2) A sentinel will quit his piece only on an explicit order of a person from whom he lawfully receives orders while on post. Unless necessity therefore exists, no person will require a sentinel to quit his piece or even require it to be inspected.

g. No. 7: To talk to no one except in line of duty.

(1) When persons make proper inquiries of a sentinel, courteous answers should be given.

(2) When calling for any purpose, challenging, or holding conversation with any person, a dismounted sentinel armed with a rifle will take the position of port arms.

(3) At night a sentinel armed with a pistol takes the position of raise pistol in challenging or holding conversation.

h. No. 8: To give the alarm in case of fire or disorder.

(1) In case of fire, the sentinel will immediately call, "Fire, Number —;" turn in the alarm or make certain that the alarm has already been given; and extinguish the fire or, if impossible, he will take the necessary action to direct the responding fire apparatus to the fire.

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(2) In case of disorder, the sentinel will call, "The guard, Number —."

(3) In either case, except on board Naval vessels, if the danger is great, the sentinel will discharge his piece three times in rapid succession before calling.

i. No. 10: To salute all officers, and all colors and standards not cased.

(1) Sentinels salute all persons and parties entitled to the compliment from the guard; other officers of the Army, Navy, Marine Corps, and Coast Guard; officers of the National Guard and Organized Reserves when in uniform; and military and naval officers of friendly foreign powers, with the following exceptions:

(a) No salute is rendered to a person or party by a member of the guard who is engaged in the performance of a specific duty the proper execution of which would prevent saluting.

(b) A sentinel armed with a pistol does not salute during the hours of challenging; he stands at the position of raise pistol.

(2) *A sentinel salutes as follows:*

(a) If walking post he halts and, if armed with a rifle, salutes by presenting arms; if otherwise armed he renders the hand salute.

(b) If doing patrol duty he does not halt, unless spoken to, but renders the rifle salute; if otherwise armed he renders the hand salute.

(c) If in a sentry box, he stands at attention in the doorway upon the approach of the person or party entitled to the salute and, if armed with the rifle, salutes by presenting arms; if otherwise armed he renders the hand salute.

(3) A sentinel salutes as an officer comes on his post. If the officer holds conversation with him, he assumes the position of port arms if armed with the rifle, otherwise the position of attention, during the conversation, and again salutes when the officer leaves.

(4) During the hours when challenging is prescribed the first salute is given as soon as the officer is duly recognized.

(5) A sentinel in conversation with an officer will not interrupt the conversation to salute another officer, but in case the officer salutes a senior the sentinel will also salute.

(6) When the flag is being raised at morning colors or lowered at evening colors, a sentinel on post when not engaged in the performance of a specific duty the proper execution of which would prevent saluting, stands at attention at the first note of the *National*

REGULATIONS RELATING TO THE GENERAL ORDERS

Anthem or *To the Color (Standard)* and renders the prescribed salute. Normally he faces toward the flag while saluting, but may face in another direction if the duty upon which he is engaged requires it. At the last note he resumes walking his post.

(7) When an armed party of the guard approaches, the sentinel halts when it is about 30 paces from him and faces toward it with his rifle at right shoulder arms. If he is not to be relieved he will, as the party passes, place himself so that it will pass in front of him, and resumes walking his post when it has passed 6 paces beyond him.

j. No. 11: To be especially watchful at night and, during the time for challenging, to challenge all persons on or near my post, and to allow no one to pass without proper authority.

(1) During challenging hours, if a sentinel sees any person or party on or near his post, he will advance rapidly along his post toward such person or party, and when within 30 paces will challenge sharply, "HALT! Who is there?" Unless circumstances require otherwise, the sentinel will continue to advance while challenging, and place himself in the most advantageous position from which to pass or arrest the person or party. In selecting this position the sentinel may require the challenged person or one of the party to advance toward him, or to remain halted, or to advance to a particular place, or to face toward the light, or to take whatever position necessary in order that he may most surely and promptly determine whether the person or party should be passed or turned over to the guard.

(2) If the person or party is mounted or in a vehicle, the sentinel will proceed as when the person or party is on foot; however, if necessary to the proper performance of his duty, he may cause the person or one of the party to dismount.

(3) A sentinel will permit only one of a party to approach him for the purpose of being duly recognized.

(4) A sentinel must satisfy himself beyond a reasonable doubt that those challenged are what they represent themselves to be and have a right to pass. If he is not satisfied he will detain the person or party and call the corporal of the guard.

(5) A sentinel will carry out the following procedure in challenging a person or party:

Sentinel: "HALT! Who is there?"

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Person: "Friend (Officer of the day; Sergeant of the guard; etc.)."
or

Senior one of a party: Command: 1. **Relief (Friends; Patrol; etc.)**, 2. **HALT**, and then in answer to the challenge, "Relief (Friends; Patrol; etc.)."

Sentinel: "Advance friend (officer of the day; sergeant of the guard; etc.), to be recognized," or in case of a party: "Advance one to be recognized." In either case he adds such other order as may be required, as provided in subpar. j (1) above.

Sentinel: "HALT." (Given when the person has arrived in the vicinity of the sentinel.)

Sentinel: "Advance friend (officer of the day; sergeant of the guard; etc.)," or in case of a party: "Advance relief (friends; patrol; etc.)." (Given in either case after questioning, if necessary, and duly recognizing the person. If the person is an officer, the sentinel will salute, except at night when armed with a pistol.)

Person advanced (in case of a party): 1. **Forward**, 2. **MARCH**, or such other command as appropriate.

(6) If two or more persons or parties approach the sentinel's post from different directions at the same time, they will be challenged in turn and required to halt and remain halted until advanced. The senior is advanced first.

(7) If a person or party is already advanced and in conversation with a sentinel, the latter will challenge any other person or party that may approach. If the person or party challenged is senior to the one already on his post, the sentinel will advance such senior at once. The senior may allow the sentinel to advance any or all juniors that may be challenged; otherwise, the sentinel will advance none until the senior leaves him. He will then advance only the senior of the remaining ones, and so on.

(8) The following order of rank governs a sentinel in advancing different persons or parties approaching his post: Commanding officer; field officer of the day; officer of the day; officer of the guard; officers; patrols; relief; petty officers of the guard in order of rank; and friends.

(9) A sentinel must never allow himself to be surprised nor permit two persons or parties to advance upon him at the same time.

(10) Answers to a sentinel's challenge intended to confuse or mislead him are prohibited; however, the use of the answer "Friend," is permitted by officers or patrols when the purpose of their visit makes it desirable that their official capacity should not be announced.

SECTION IV

PRISONERS AND PRISONER GUARDS

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11-25. *RULES GOVERNING PRISONERS.*—Chapter 4, NR, and the Manual for the Government of United States Naval Prisons, 1923, contain the general provisions for the administration and control of prisoners. In general, the prison officer, if there be one, is responsible for the employment and management of prisoners; the commander of the guard for their safe-keeping and the enforcement of discipline.

11-26. *CONFINEMENT AND RELEASE OF PRISONERS.*—*a.* A prisoner, after his first day of confinement and until his sentence has been duly promulgated, is considered as held in confinement by authority of the commanding officer. After promulgation of his sentence, the prisoner is held in confinement by authority of the officer who reviews the proceedings of the court awarding the sentence.

b. No general court-martial prisoner will be released from confinement except on an order communicated by the commanding officer. All other prisoners will be released as provided in par. 11-12 *d* (1).

11-27. *PRISONER GUARDS.*—*a.* A guard over prisoners is detailed for the particular duty of guarding prisoners at work or otherwise outside of the prison or guardhouse. Members of the prisoner guard are normally detailed for a period of time in the same manner as members of the main guard. The number of sentinels detailed on prisoner guard will be kept at a minimum.

b. When no prisoner guard has been detailed, the commander of the guard is responsible for guarding the prisoners.

c. The commander of the guard is responsible for the security of prisoners not removed from the custody of the guard by proper authority.

d. The detail of a separate prisoner guard under a commander other than the commander of the main guard may be necessary when the number of prisoners is excessive, when prisoners are engaged on a

PRISONERS AND PRISONER GUARDS

work project at a considerable distance from the prison or guard-house, or when prisoners are being transferred to another station or otherwise removed from the immediate control of the post guard. The prison officer, if there be one, may be placed in command of said separate guard.

e. When prisoners are turned over to a separate guard, such guard is responsible for their safe-keeping under its commander, and all responsibility of the main guard ceases until the prisoners are returned to the main guard.

f. Before taking over prisoners, the prisoner guard will be inspected by the commander of the guard who will see that all of the members of the prisoner guard are properly armed and equipped, conversant with their orders, and in condition to perform their duties.

g. The provost sergeant is a petty officer detailed as assistant to the prison officer for the employment and management of prisoners. He may also be detailed as sergeant of the prisoner guard and as such receives his orders from the commander of the prisoner guard.

11-28. *SENTINELS ON PRISONER GUARD.*—*a.* A sentinel on guard over prisoners is on post within the meaning of these regulations.

b. In the event of an outbreak, attempted escape, or any disorder, a sentinel over prisoners will take immediate action, using enough force to restore order or prevent escape. The force used in any case will be strictly limited to that which a person charged with the custody of prisoners reasonably believes to be necessary for the enforcement of duly authorized regulations and for the proper control of prisoners.

c. If a prisoner attempts to escape, the sentinel or any member of the prisoner guard or the main guard who sees him will call "HALT!" If the prisoner fails to halt when the call has been once repeated, and if there is no other effective means for preventing his escape, the sentinel or member of the guard will fire at the prisoner.

d. A sentinel placed over prisoners will receive specific and explicit instructions governing the required work from the sergeant of the guard or provost sergeant. Sentinels are responsible that prisoners under their charge work diligently at the assigned task, and properly and satisfactorily perform the designated work.

e. A sentinel placed over prisoners will strictly enforce the rules and regulations prescribed for their conduct and control of prisoners.

f. Whenever he returns prisoners to the guardhouse, a sentinel over prisoners will halt them and call, "Number 1, (so many) pris-

SENTINELS ON PRISONER GUARD

oners." He will not allow them to cross the post of the sentinel at the guardhouse until so directed by the corporal of the guard.

g. A prisoner under charge of a sentinel does not salute.

h. A prisoner guard does not salute except when spoken to by an officer. If spoken to while marching prisoners, he will halt them and, under any conditions, take such precautions as are necessary to prevent their escape, before receiving instructions.

SECTION V

FORMATIONS

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11-29. *UNDER ARMS*.—*a*. At all formations the guard forms under arms.

b. Upon forming, and prior to dismissal, members of the guard or members of a relief execute **inspection arms** as prescribed in chapter 2.

11-30. *TO FORM THE GUARD*.—*a*. When the guard is turned out the sergeant of the guard takes post 3 paces in front of where its center is to be and faces it. The petty officer next in rank takes post as guide so that when formed the center of the guard will be opposite to and 3 paces from the sergeant of the guard.

b. The reliefs form in the same formation and order as when the guard was first formed prior to being divided. Squads do not count off except when the guard is formed prior to marching off.

c. The other petty officers take post in rear of their respective reliefs. The buglers take post 3 paces to the right of the guard.

d. When the guard is formed the sergeant of the guard commands: 1. **Inspection**, 2. **ARMS (PISTOLS)**, 3. **Right shoulder**, 4. **ARMS** (or 3. **Return**, 4. **PISTOLS**), and calls the roll. Each man, as his name is called, answers, "Here" and if armed with the rifle, executes order arms.

e. At night the roll may be called by reliefs and numbers instead of by names. Thus, the first relief being on post: "Second relief, corporal; No. 1; No. 2; etc.; third relief, corporal; No. 1; No. 2; etc." The roll will be called prior to dismissal if for any reason it was omitted when formed.

f. The commander of the guard places himself 6 paces in front of and facing the guard in time to receive the report of the sergeant of the guard.

FORMATIONS

g. After calling the roll, the sergeant of the guard faces about and reports, "Sir, all present or accounted for," or "Sir, (so-and-so) absent," or if the roll has not been called, "Sir, the guard is formed," and without command takes his post in rear of the right file of the guard or, if he is also commander of the guard, he takes post and proceeds as commander of the guard.

11-31. *TO PARADE PRISONERS.*—*a.* *To receive prisoners.*—The sergeant of the guard will turn over his keys to the petty officer at the guardhouse. He will then form the guard and divide it into two nearly equal parts with sufficient interval between them to receive the prisoners. The doors of the guardroom and cells are then opened by the petty officer having the keys. The prisoners file out under supervision of the sergeant of the guard, the petty officer and sentinel on duty at the guardhouse, and such other sentinels as may be necessary. They form in line in the interval between the two parts of the guard.

b. *To return prisoners to the guardroom and cells.*—The prisoners, under the same supervision as before, will be marched to their places of confinement, and the interval between the two parts of the guard will be closed by appropriate commands.

c. *To turn over prisoners at the guardhouse to the new guard after they have been paraded with the old guard and have been verified by the officers of the day.*—The commander of the new guard directs his sergeant of the guard to form his guard with an interval as previously described, and by appropriate commands marches the prisoners to the place provided for them and dresses them in the alignment of the new guard.

11-32. *TO POST RELIEFS ON SHORE.*—*a.* When directed by the commander of the guard, the corporal of the guard of the first relief forms his relief. The men place themselves according to the numbers of their respective posts; viz., even numbers in the front rank and odd numbers in the rear rank. At the command: **CALL OFF**, the men call off alternating rear and front rank from right to left: **ONE, TWO, THREE, FOUR**, and so on. The corporal of the guard then commands: 1. **Right**, 2. **FACE**, 3. **Right Shoulder**, 4. **ARMS**, 5. **Forward**, 6. **MARCH**. He marches on the left and near the rear file in order to observe the march. The corporal of the old guard marches on the right of the leading file and takes command when the last one of the old sentinels is relieved, changing places with the corporal of the new guard. When the relief arrives at 6 paces

TO POST RELIEFS ON SHORE

from a sentinel the corporal of the new guard halts it and commands, according to the number of the post: **NUMBER —**. The new sentinel approaches the old, and when about 1 pace from and facing him, executes **halt**. Both sentinels then execute port arms unless armed only with the pistol. In the latter case, during the time for challenging, they execute raise pistol; at other times pistols remain in holsters. The corporals of the guard advance and place themselves facing each other a little in advance of the new sentinel, the old corporal of the guard on his right, the new on his left; both remaining at right shoulder arms. They see that the old sentinel correctly transmits his instructions. (See fig. 1.)

The instructions relative to the post having been transmitted, the new corporal of the guard commands: **POST**. Both sentinels then resume right shoulder arms, face toward the new corporal of the guard, and step back to allow the relief to pass in front of them.

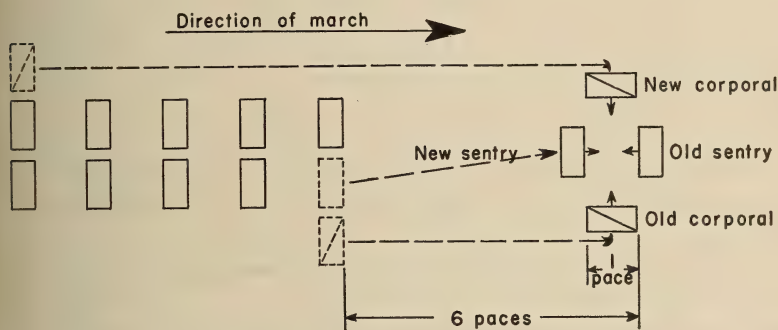


FIGURE 1.—Posting the relief.

The new corporal of the guard then commands: 1. **Forward**, 2. **MARCH**. The old sentinel takes his place in the rear of the relief as it passes him. The new sentinel stands fast at right shoulder arms until the relief has passed 6 paces beyond him, then walks his post. The corporals of the guard take their places as the relief passes them. On the return of the old relief, the corporal of the new guard falls out when the relief halts. The corporal of the old guard forms his relief on the left of the old guard if it has been held at the guardhouse, salutes, and reports to the commander, "Sir, the relief is present," or, "Sir, (so-and-so) absent," and takes his post. In case the old guard was not held at the guardhouse, the corporal marches his relief to its quarters and reports their presence to the petty officer in charge.

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b. To post a relief other than the one posted when the old guard is relieved, its corporal of the guard commands: 1. **First (Second, etc.) relief**, 2. **FALL IN**. Arms, if stacked, are taken at the proper commands. The corporal of the guard, standing 2 paces in front of the center of his relief, then commands: **CALL OFF**. The men call off as previously prescribed. He then commands: 1. **Inspection**, 2. **ARMS (PISTOLS)**, followed by proper commands for loading, if arms are to be carried loaded, 3. **Order**, 4. **ARMS** (or 3. **Return**, 4. **PISTOLS**). He then reports to the commander of the guard that his relief is present and ready to be posted, or that (so-and-so) is absent. When the commander of the guard directs, "Post your relief," the corporal of the guard salutes and posts his relief as prescribed in subpar. *a* above.

c. The corporal of the guard of the relief on post does not go with the new relief except when necessary to show the way.

d. If sentinels are numerous, reliefs may, by the authority of the commanding officer, be posted in detachments. The sergeant of the guard as well as corporals of the guard may be required to relieve and post them.

11-33. **TO DISMISS RELIEFS ON SHORE.**—*a.* To dismiss the old relief, it is halted and faced to the front at the guardhouse. The corporal of the new relief falls out. The corporal of the old relief steps in front of the relief and dismisses it.

b. If arms were loaded before the relief was posted, the corporal of the relief will see that no cartridges are left in the chambers or magazines before dismissing the relief. The same rule applies to sentinels over prisoners.

SECTION VI

COMPLIMENTS, SALUTES, RAISING AND LOWERING THE FLAG

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11-34. *COMPLIMENT FROM THE GUARD.*—*a.* The compliment from the guard consists in the guard turning out and presenting arms. No compliment from a guard is paid between evening and morning colors; however, it may be turned out at any time for inspection by the commanding officer, field officer of the day, or officer of the day, or as a precaution of security.

b. Ashore the guard will pay the compliment—

(1) When the national or regimental color or standard, not cased, is carried past the guardhouse by a guard or an armed party. This rule also applies when the party carrying the color or colors is at drill. If the drill is conducted in the vicinity of the guardhouse, the guard will be turned out when the color or colors first pass and not thereafter.

(2) When the remains of a deceased officer or enlisted man passes the guardhouse.

(3) Upon the approach of armed parties except troops at drill and reliefs and detachments of the guard.

(4) To the persons enumerated in the U. S. Navy Regulations as entitled to this honor.

(5) To the commanding officer, field officer of the day, and officer of the day.

c. Guards will not be turned out on Sundays as a matter of compliment for officers of the United States Army, Navy, Marine Corps, or Coast Guard.

d. On board a Naval vessel the guard will pay the compliment as prescribed by chapter 5, NR.

11-35. *NOTICE OF PRESENCE OF DISTINGUISHED PERSONS.*—The commander of the guard will be notified of the presence in the post of all persons entitled to the compliment except such as are habitually there, and sentinels will be advised accordingly.

COMPLIMENTS, SALUTES, RAISING AND LOWERING THE FLAG

11-36. *SALUTES AND REPORTS.*—*a.* Between morning and evening colors, when the guard has been turned out for any person entitled to the compliment, the commander of the guard, if an officer, receives the report of the sergeant of the guard, returns the salute, draws his sword (if so armed), and places himself 3 paces in front of the center of the guard. When the person for whom the guard has been turned out approaches, the commander of the guard faces the guard and commands: 1. **Present**, 2. **ARMS**, then faces to the front and salutes. When his salute has been acknowledged, he resumes carry sword, faces about, commands: 1. **Order**, 2. **ARMS**, and faces to the front. If the guard is not armed with the rifle, the commander of the guard salutes.

b. If the guard is turned out for an officer entitled to inspect it (the commanding officer, field officer of the day, or officer of the day), after saluting and before bringing the guard to order arms, the commander of the guard reports, "Sir, all present or accounted for," or "Sir, (so-and-so absent)" or if the roll call has been omitted, "Sir, the guard is formed."

c. To those entitled to have the guard turned out, but not entitled to inspect it (see par. 11-34 *b* (4)), no report is made; nor is a report made to any officer unless he halts in front of the guard.

d. Between evening and morning colors the commander of the guard salutes and reports but does not bring the guard to present arms.

e. When a guard commanded by a petty officer is turned out as a compliment or for inspection, he takes post as prescribed for an officer and renders the proper salute.

f. After any person has received or declined the compliment, or received the salute from the commander of the guard with the guard at attention, official recognition of his presence thereafter, while he remains in the vicinity, will be taken by bringing the guard to attention only.

11-37. *RAISING AND LOWERING THE FLAG.*—*a. General.*—(1) It is the duty of the commander of the guard, ashore, to see that the proper flag is flown at the proper times, and under all weather conditions.

(2) The flag will be hoisted at 8 a. m., and lowered at sunset.

(3) The national flag will always be displayed at the time of firing salutes.

(4) The sentinel at the guardhouse, or the sentinel nearest the flagstaff will immediately report to the sergeant of the guard any

RAISING AND LOWERING THE FLAG

danger to the flag from any cause; such as, loosened halyards, fouling, etc.

(5) The flag should always be raised or lowered from the leeward side of the flagstaff.

(6) In displaying the flag at half-mast it is first hoisted to the top of the staff and then lowered to the half-mast position. Before lowering it is again hoisted to the top of the staff. Technically, a flag at any position other than at the top of the staff is half-masted. In practice, a flag at half-mast is flown, when possible, with the middle point of the hoist of the flag opposite the middle point of the flagstaff. The middle point of an unguyed flagstaff is midway between the top and base of the staff; of a guyed flagstaff, midway between the top of the staff and the point of attachment of the guys; and of a staff with a yardarm, midway between the top of the staff and the yardarm. Local conditions, such as the liability of fouling the flag, may, however, require other positions.

b. Raising the flag.—A detail consisting, when practicable, of a petty officer and two nonrated men of the guard will hoist the flag. This detail will be armed with side arms if the special equipment of the guard includes sidearms; otherwise, with the belt only. The detail is formed in line at the guardhouse, with the petty officer, carrying the flag, in the center. It is then marched to the flagstaff, halted, and the flag attached to the halyards. The halyards are manned by the two nonrated men who take position facing the staff so as to enable them to hoist the flag without fouling. The petty officer continues to hold the flag until it is hoisted clear of his grasp, taking particular care that no portion of it touches the ground. When the flag is clear of his grasp he comes to attention and executes the first motion of the hand salute. The flag is hoisted smartly at the first note of the *National Anthem* or, if no band be present, at the first note of *To the Colors*. As soon as the flag has been hoisted to the masthead, the nonrated men hold it there, grasping the halyards with their left hands and without moving from their positions, execute the first motion of hand salute. On the last note of the music all members of the detail execute the second motion of hand salute. The halyards are then secured to the cleat of the staff or the flag (as required) is lowered to half mast and the halyards secured. The detail is again formed, marched to the guardhouse, and dismissed.

c. Lowering the flag.—The personnel required for lowering the flag is the same as for raising it. The detail is formed at the guardhouse, marched to the flagstaff, and halyards are cast off and manned

COMPLIMENTS, SALUTES, RAISING AND LOWERING THE FLAG

in the same manner. On the first note of the *National Anthem* or, if no band be present, on the first note of *To the Colors*, the flag is slowly lowered so that it will be caught by the petty officer at the last note of the music, or is hoisted to the masthead (as required) and

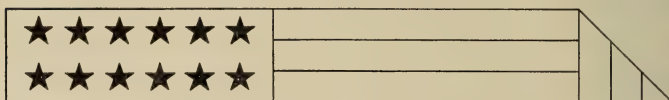
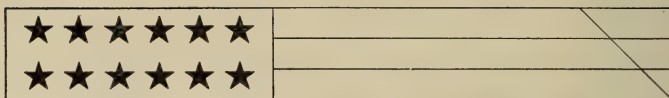
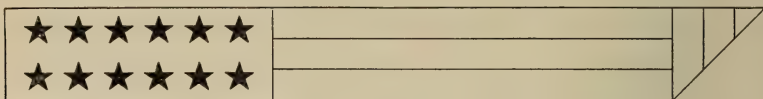


FIGURE 2.—Folding the flag.

then lowered. The flag is folded into the shape of a cocked hat, with the blue field and stars outward, as shown in figure 2, and detached from the halyards. The halyards are secured to the staff, the detail is formed and marched to the guardhouse, and the flag turned over to the commander of the guard.

SECTION VII

GUARD MOUNTING

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11-38. *GENERAL RULES*.—*a.* Guard mounting may be formal or informal as the commanding officer directs.

b. The commanding officer prescribes the uniform, arms, and equipment for guard duty.

11-39. *FORMAL GUARD MOUNTING (ASHORE)*.—*a.* Prior to assembly, at the command of the company chief petty officer, the men going on guard fall in by detail on their company parade ground as prescribed for the squad with the petty officers on the right flank. The company chief petty officer verifies the detail, inspects it, replaces those who do not present a creditable appearance, turns the detail over to the senior petty officer, and retires. If there is no petty officer with the detail, the company chief petty officer turns the detail over to a petty officer of the company previously designated for the duty of marching the detail on guard. At the sounding of *assembly* the detail is reported to the senior petty officer of the guard at a previously designated place off the parade ground. The guard detail is assembled and formed into a platoon. The senior petty officers of the guard to be assigned posts in paragraph *c* (3) below are formed as the rear rank in inverse order of rank from right to left. Remaining petty officers, if any, are formed on the left flank so as to equalize the number of men in each rank. After the platoon is formed it is faced to the right. The band takes its place so that the left of its front rank is 12 paces to the right of the point where the right of the front rank of the guard is to be when formed. The adjutant signals to the band when *adjutant's call* is to be sounded.

b. (1) Immediately following *adjutant's call* the band plays march music; the adjutant, with the battalion chief petty officer on his left, marches at the first note of march music from a position in front of the place where the center of the guard will be. The adjutant halts so as to take post 18 paces in front of and facing the center of the guard when formed. The battalion chief petty officer continues 18 paces, moves by the left flank, halts 12 paces to the left of the front

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rank of the band, and faces about. The guard, if armed with the rifle, is brought to the right shoulder at the first note of *adjutant's call*, marched in column in quick time to the parade ground by the senior petty officer. The post of the petty officer in command of the guard detail is 3 paces to the left and abreast of the center man of the left column of files. The guard is marched onto the parade ground from the left flank in column and sufficiently in rear of the line on which the guard is to form to permit the expeditious alignment of the guard. The guard detail is halted in rear of its position when the head of the column is abreast of the post of the battalion chief petty officer, and the band ceases to play. The commander of the guard detail, remaining at right shoulder (if armed with the rifle), executes **right face** and commands: 1. **Order**, 2. **ARMS**, 3. **Left**, 4. **FACE**. He then faces to the right in marching and proceeds to a position one pace to the left front of the left file of the front rank, executes **about face**, and places himself on line with the battalion chief petty officer and the front rank of the band. He then commands: 1. **Dress right**, 2. **DRESS**. At the command **Dress**, the right-flank man of the front rank places the middle of his chest against the left arm of the battalion chief petty officer so as to cause the fronts of the two men to be perpendicular. The guard dresses on the line thus established. The guard aligned, its commander commands: 1. **Ready**, 2. **FRONT**, salutes, and then reports, "The guard is correct, or so many men absent." The battalion chief petty officer then returns the salute. The commander then marches parallel to the front rank until two paces beyond the battalion chief petty officer, then marches by the right flank past the rear rank of the guard, then by the right flank to a point one pace beyond the left-flank man of the rear rank, then by the right flank, and halts on line with the rear rank and, if armed with the rifle, executes **order arms**.

c. (1) When the guard has been reported, the battalion chief petty officer faces to the right, steps 2 paces to the front, faces to the left, and commands: **COUNT OFF**. If there be more than 14 men per rank he divides the guard into 2 platoons. For this purpose he leaves his post, proceeds to and designates the dividing line between platoons, and from this position commands: 1. **Second platoon**, 2. **Left step**, 3. **MARCH**, 4. **Platoon**, 5. **HALT**. The command **Halt** is given at the proper time to insure an interval of 5 paces between platoons. He then passes completely around the guard and takes his post 3 paces in front and 2 paces to the right of the front rank and facing the point of rest. In passing around the guard, the

FORMAL GUARD MOUNTING (ASHORE)

battalion chief petty officer executes **by the left flank** at every necessary turn. Upon taking his post he commands: 1. ***Open ranks***, 2. ***MARCH***, and proceeds as in (2) below.

(2) The battalion chief petty officer aligns the guard, whether consisting of one or two platoons, in a manner similar to that employed by a platoon leader in aligning a platoon. After giving the command ***Front***, he moves parallel to the front rank until opposite the center, executes **by the right flank**, and halts 6 paces in front of the adjutant, salutes and reports, "Sir, the guard is correct," or "Sir, so many men are absent." The adjutant returns the salute and directs the battalion chief petty officer, "Take your post," and draws sword. The battalion chief petty officer then faces about and moves by the right oblique directly to a point 3 paces beyond the left of the front rank, halts on the line of the front rank, and faces to the front. When the battalion chief petty officer leaves his post to report to the adjutant, the officer of the guard takes his post 6 paces in the rear of the right rear rank man of the guard. When there is a junior officer of the guard he takes post on the left of the senior officer of the guard. After the battalion chief petty officer has reported to the adjutant, the officer of the guard moves from the rear of the guard, passes around the right flank, and takes post, facing to the front 12 paces in front of the center of the guard and draws sword. If there be a junior officer of the guard, he moves with the senior officer of the guard and takes post, facing to the front, 6 paces in front of the center of the first platoon, and draws sword. If the guard has not been divided into platoons, the senior officer of the guard takes post, facing to the front, 6 paces in front of the center of the guard and draws sword, and the junior officer of the guard (if there is one) takes post, facing to the front, 3 paces to the left of the senior and draws sword.

(3) The adjutant then commands: 1. ***Officer (or officers, if present) and petty officers***, 2. ***Front and center***, 3. ***MARCH***. At the command ***Center***, the officer or officers execute **carry sword** and the petty officers face toward the right and execute **right shoulder arms** without further command. At the command ***March***, the officer or officers advance and halt, remaining at the carry, 3 paces from the adjutant. In moving to the front and center the junior officer of the guard (if there is one) marches forward with and takes position to the left of the senior. The petty officers moving in column, pass beyond the right flank of the guard and execute two column left movements so as to form column on a line parallel to the front 3

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paces in rear of the officer or officers of the guard. They halt and face to the front on the command of the senior petty officer. They remain at **right shoulder**. If there is no officer of the guard, the petty officers halt on a line and face to the front, 6 paces from the adjutant. When the officer or officers and petty officers have halted, the adjutant, remaining at **carry sword**, passes along the front of each rank from the right and assigns the officers and petty officers according to rank as follows: "Commander of the guard," "leader of first platoon," "leader of second platoon," "guide of first platoon," "guide of second platoon," "right file rear rank first platoon," "right file second rank first platoon," "right file front rank first platoon," or if the guard is not divided into platoons, "Commander of the guard," "junior officer of the guard" (if present) "guide," "right file rear rank," "right file second rank," "right file front rank." If the guard has been divided into platoons, the junior officer of the guard (if present) is assigned as "leader of first platoon."

(4) The adjutant then resumes his position in front of the guard and commands: 1. **Officer (or officers) and petty officers**, 2. **Posts**, 3. **MARCH**. At the command **Posts**, all face about. At the command **March** they move by the most direct route and take the posts assigned them by the adjutant. The petty officers will execute **order arms** and **about face** on the command of the guide. If the guard is not divided into platoons, the junior officer of the guard (if present) takes post abreast of the left flank man of the rear rank. The adjutant then directs the commander of the guard, "Inspect your guard, Sir." The adjutant then executes **return sword**. The officer commanding the guard faces about, commands: **PREPARE FOR INSPECTION**, returns sword, and proceeds to inspect the guard. The commander of the guard may direct the junior officer of the guard to assist in the inspection.

(5) During the inspection the band plays. The adjutant observes the general condition of the guard and causes to fall out and return to quarters any man who does not present a creditable appearance. He selects the necessary orderlies and color sentinels. Substitutes for the men fallen out report to the commander of the guard at the guardhouse. If there is no officer of the guard, the adjutant inspects the guard. A petty officer commanding the guard takes post as prescribed for an officer after he has been so designated by the adjutant.

d. (1) The inspection ended, the adjutant places himself 36 paces in front of and facing the center of the guard and draws sword. The

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new officer of the day takes post in front of and facing the center of the guard about 36 paces in rear of the adjutant. The old officer of the day takes post 3 paces to the right and 1 pace in rear of the new officer of the day. The officers of the day without drawing sword remain at attention. The commander of the guard takes his post in front of the guard. If he is an officer, he draws sword with the adjutant and executes **order sword**.

(2) The adjutant then commands: 1. *Parade*, 2. *REST*, 3. **SOUND OFF**, and executes **parade rest**.

(3) At the command **Sound off**, the band plays in place the *sound off* of three chords, giving two beats in quick time to each chord and at the conclusion of the third chord moves forward playing in quick time, passes to the left of the line between the officers of the guard and the adjutant and back to its post on the right where it halts and ceases to play, the *sound off* again being played.

(4) The adjutant then comes to attention, executes **carry sword**, and commands: 1. *Guard*, 2. *ATTENTION*, 3. *Close ranks*, 4. **MARCH**.

(5) The ranks are closed without command from the platoon leaders.

(6) The adjutant then commands: 1. *Present*, 2. *ARMS*, faces toward the new officer of the day, salutes and reports, "Sir, the guard is formed." The new officer of the day returns the salute with the hand and directs the adjutant, "March the guard in review, Sir," or "March the guard to its post, Sir."

(7) The adjutant executes **carry sword**, faces about, and brings the guard to the order. When directed to march the guard to its post, the adjutant repeats the command and the commander of the guard marches the guard directly to the guardhouse in the most practicable manner. The band and field music are dismissed. Otherwise the adjutant commands: 1. *Pass in review*, 2. *Right*, 3. *FACE*.

(8) At the command **Face**, the guard executes the movement and the band turns to the right and places itself so that the rear rank of the band is approximately 24 paces in front of the leading platoon.

(9) The adjutant places himself 3 paces to the left of and on line with the commander of the guard. The battalion chief petty officer places himself 3 paces to the left of and on line with the rear file of left column of files.

(10) The adjutant then commands: 1. *Right shoulder*, 2. *ARMS*, 3. *Forward*, 4. **MARCH**.

(11) The guard marches at quick time with the band playing past the officer of the day, saluting according to the principles of review.

GUARD MOUNTING

After the command *March* has been given the guide of the leading platoon will maintain the distance of 24 paces from the rear rank of the band. The adjutant and the commander of the guard salute together, leaders of platoons and drum major salute with their units, and the battalion chief petty officer salutes with the unit by which he is marching.

(12) The band, having passed the officer of the day, turns to the left out of the column, places itself opposite and facing him at a distance of 18 paces from where the left flank of the guard passes, and continues to play until the guard leaves the parade ground. The field music detaches itself from the band when the latter moves out of the column and, remaining in front of the guard, commences to play when the band ceases.

(13) Having passed 25 paces beyond the officer of the day, the adjutant halts. The battalion chief petty officer halts abreast of the adjutant and 1 pace to his left. The adjutant returns sword. The adjutant and the battalion chief petty officer then face toward each other, salute and retire. The commander of the guard then marches the guard to its post.

(14) The officers of the day face each other and salute. The old officer of the day turns over the orders to the new officer of the day.

(15) While the band is sounding off and the guard is marching in review the officers of the day stand at attention.

(16) The new officer of the day returns the salutes of the commander of the guard and the adjutant. He salutes only once as the adjutant and the commander of the guard salute together.

e. The new bugler of the guard forms and continues with the field music to the guardhouse. When the new guard is divided into reliefs, the new bugler relieves the old bugler and with him reports to the new officer of the day for inspection and instruction.

11-40. *INFORMAL GUARD MOUNTING.*—*a.* Informal guard mounting is held on the parade ground of the organization from which the guard is detailed, or, if the guard is detailed from more than one organization, at such place as the commanding officer may direct.

b. Prior to assembly, guard details are formed, inspected as prescribed in paragraph 11-39*a* and reported to the commander of the guard at the point designated for the assembly.

c. (1) The commander of the guard causes the guard to form as one platoon irrespective of size as prescribed in paragraph 11-39*a* above. He takes post 6 paces in front of the center of the guard, and faces to the front. The officer of the day takes his place 18 paces in front

INFORMAL GUARD MOUNTING

of and facing the center of the guard, draws sword, and commands: 1. **Officer and petty officers**, 2. **Front and center**, 3. **MARCH**. The officers and petty officers then take their positions, are assigned and sent to their posts as prescribed in formal guard mounting in paragraph 11-39c (3) and 11-39c (4) above. The officer of the day directs, **PREPARE FOR INSPECTION**. The officer commanding the guard faces about and commands: 1. **Open ranks**, 2. **MARCH**. He then proceeds to the right flank of the guard, verifies the alignment, commands: 1. **Ready**, 2. **FRONT**, 3. **PREPARE FOR INSPECTION**, takes post 3 paces in front of the right guide facing to the front, and remains at **carry sword**.

(2) The officer of the day then inspects the guard and selects the necessary orderlies and color sentinels. Any men who do not present a creditable appearance are caused to fall out, return to quarters, and are replaced. This fact is reported by the officer of the day to the adjutant after guard mounting.

(3) When the inspection is completed the officer of the day resumes his position and directs the commander of the guard to march the guard to its post. Ranks are closed and the guard marched, without music, in the most practicable manner.

(4) The new bugler of the guard forms abreast of the left flank man of the front rank at the formation of the guard detail and reports to the new officer of the day with the old bugler after guard mount for instructions.

(5) When a petty officer commands the guard, the officer of the day gives the commands for opening and closing ranks and verifies the alignment.

(6) When the guard is commanded by a petty officer he takes post as prescribed for an officer except in marching to the front and center he takes post on the right of the line of petty officers in the most practicable manner. At the command of the officer of the day he returns to the post prescribed for the officer 3 paces in front of the right flank.

SECTION VIII

RELIEVING THE OLD GUARD

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11-41. *TO RELIEVE THE OLD GUARD.*—*a. March of new guard to guardhouse.*

(1) As the new guard approaches the guardhouse, the old guard is formed in line with its field music 3 paces to its right and on the same line. When the field music at the head of the new guard arrives opposite the old guard's left flank, the commander of the new guard commands: 1. **Eyes**, 2. **RIGHT**, and the commander of the old guard commands: 1. **Present**, 2. **ARMS**. Commanders of both guards exchange salutes. The new guard marches in quick time past the front of the old guard.

(2) When the commander of the new guard is opposite the field music of the old guard, he commands: 1. **Ready**, 2. **FRONT**. The commander of the old guard commands: 1. **Order**, 2. **ARMS**, as soon as the new guard has cleared the front of the old guard.

(3) The field music having marched 3 paces beyond the field music of the old guard, changes direction to the right and, followed by the guard, changes direction to the left when on line with the old guard. The changes of direction are without command. The commander of the new guard halts on the line established by the old guard, allows his guard to march past him, halts it 3 paces to the right of the field music of the old guard, forms line and dresses his guard to the left. The field music of the new guard halts 3 paces to the right of the new guard on the line of its front rank.

b. Presenting old and new guards.—(1) After the new guard is dressed, the commander of each guard, in front of and facing its center, commands: 1. **Present**, 2. **ARMS**, resumes his front, salutes the other guard, carries sword, faces toward his guard, and commands: 1. **Order**, 2. **ARMS**.

(2) If the guard is commanded by a petty officer, he takes post and executes the facings as prescribed for an officer and renders the proper salute.

c. Presenting guard to officers of the day.—After the new guard has arrived at its post and the commanders of the guards have ex-

RELIEVING THE OLD GUARD

changed salutes, each guard is presented by its commander to its officer of the day. If there is but one officer of the day present, or if one officer acts in the capacity of the old and new officer of the day, each guard is presented to him by its commander.

d. Dispositions of new guard.—(1) After the salutes have been acknowledged by the officers of the day, each guard is brought to the order by its commander. The commander of the new guard then causes bayonets to be fixed if so ordered by the commanding officer. Bayonets are not thereafter unfixed during the tour except in route marches, while the guard is actually marching, or when especially directed by the commanding officer.

(2) The commander of the new guard then causes to fall out members of the guard for detached posts, places them under charge of the proper petty officer, and divides the guard into three reliefs. When the guard consists of troops of different arms combined, the men are assigned to reliefs, under rules prescribed by the commanding officer, so that a fair division of duty may be assured.

e. Relief by new guard.—The sentinels and detachments of the old guard are at once relieved by members of the new guard. The two guards stand at ease or at rest while these changes are being made. The commander of the old guard transmits to the commander of the new guard all his orders, instructions, and information concerning the guard and its duties. The commander of the new guard then takes possession of the guardhouse and verifies the articles charged to the guard.

f. Dismissing old guard.—If considerable time is required to bring in that portion of the old guard still on post, the commanding officer may direct that, as soon as the orders and property are turned over to the new guard, the portion of the old guard at the guardhouse be marched off and dismissed. In such cases the remaining detachment or detachments of the old guard are inspected by the commander of the new guard when they reach the guardhouse. The latter directs the senior petty officer present to march these detachments off and dismiss them in the prescribed manner.

g. Salutes by guard.—(1) If persons entitled to a salute approach while the old and new guard are in formation each commander of the guard brings his own guard to attention, if not already at attention, and commands: 1. **Old or New Guard**, 2. **Present**, 3. **ARMS**.

(2) After the salute has been acknowledged, each guard is brought to the **order arms**.

LANDING-FORCE MANUAL

UNITED STATES NAVY

1938



CHAPTER 12

MARCHES, SECURITY ON THE MARCH AND OUTPOSTS

(Reprinted 1941 with all changes up to and including No. 5)



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FOREWORD

The Landing-Force Manual, U. S. Navy, 1938, is published in nineteen chapters as follows:

- CHAPTER 1. INTRODUCTION.
- CHAPTER 2. INDIVIDUAL INSTRUCTION WITHOUT ARMS AND WITH ARMS (RIFLE, AUTOMATIC RIFLE, SUBMACHINE GUN, PISTOL, AND BAYONET).
- CHAPTER 3. DRILL, THE SQUAD, PLATOON, AND COMPANY.
- CHAPTER 4. FORMATIONS OF THE BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 5. CART DRILL.
- CHAPTER 6. DRILL, MACHINE GUN, CALIBER .30.
- CHAPTER 7. DRILL, THE SPECIAL-WEAPONS PLATOON (37-MM GUN AND 81-MM MORTAR).
- CHAPTER 8. DRILL, ARTILLERY.
- CHAPTER 9. THE INFANTRY PACK, AND DISPLAY OF EQUIPMENT AND CLOTHING.
- CHAPTER 10. CEREMONIES; AND MANUAL OF THE COLOR, SWORD, AND GUIDON.
- CHAPTER 11. INTERIOR GUARD DUTY AND GUARD MOUNTING.
- CHAPTER 12. MARCHES, SECURITY ON THE MARCH, AND OUTPOSTS.
- CHAPTER 13. TENT DRILL AND SHELTER.
- CHAPTER 14. FIELD SANITATION, PERSONAL HYGIENE, AND FIRST AID.
- CHAPTER 15. EXTENDED-ORDER EXERCISES, COMBAT PRINCIPLES OF THE RIFLE SQUAD AND PLATOON, AND COMBAT SIGNALS.
- CHAPTER 16. TACTICS AND TECHNIQUE OF THE RIFLE COMPANY AND INFANTRY BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 17. THE DEFENSE AND ATTACK OF CITIES, RIOT DUTY, AND NATIONAL DISASTERS.
- CHAPTER 18. PHYSICAL DRILL.
- CHAPTER 19. SMALL ARMS MARKSMANSHIP.

LANDING-FORCE MANUAL

UNITED STATES NAVY

CHAPTER 12

MARCHES, SECURITY ON THE MARCH, AND OUTPOSTS

Sections II to V, inclusive, of this chapter are based on Field Service Regulations, United States Army, FM100-5, and Special Operation of Infantry Units, Marine Corps Schools, 1935.

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SECTION I

MARCHES

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12-1. *GENERAL PRINCIPLES.*—*a.* A successful march is one that places the troops at their destination at the proper moment and in the best possible condition.

b. The marching efficiency of a unit is judged by the amount of straggling and elongation, and the condition of men and animals at the end of the march.

12-2. *TO TRAIN TROOPS TO MARCH.*—The training for marches should consist of systematic exercises to develop physique and of actual marching to accustom men to the fatigue of bearing arms and equipment and to train them in march discipline. One march should be made each day with full equipment, beginning with a distance of 2 or 3 miles and increasing the distance daily as troops become hardened, until a full day's march (12 to 15 miles) with full equipment can be made without exhaustion.

12-3. *PREPARATIONS PRIOR TO THE MARCH.*—Each company and platoon commander inspects his unit before the march and assures himself that arms, clothing, and equipment are as prescribed, canteens filled, packs properly made up, and matériel to be

MARCHES

transported is complete, properly marked, and ready. Commanders of units provided with transportation inspect the loading and adjustment of matériel.

12-4. *DISTRIBUTION OF TROOPS*.—*a*. Elements are distributed in accordance with the requirements of security (see sections II, III, and IV) and their probable order of going into combat.

b. The position of units in column is ordinarily changed daily so that each in turn leads.

12-5. *MEDICAL PERSONNEL*.—A medical officer must march with the medical detachment at the rear of the column to be able to examine and treat disabled men. The sick and injured should be tagged, treated, and sent to available vehicles, or otherwise disposed of, and the unit commander concerned informed of the action taken in each case.

12-6. *MARCH FORMATION (ROUTE COLUMN)*.—*a*. The usual march formation is route column (column of threes (or fours)). In peaceful areas the commander and headquarters unit of each organization (platoon, company, etc.) march at the head of their organization.

b. The elements of the column cover in file and dress toward the side of the guide.

c. In hostile areas the commander and headquarters unit of each organization (platoon, company, etc.) usually march at the head of the main body of their organization preceded by such advance guard elements as are required by the situation. See section II for advance guards.

12-7. *FORMING THE COLUMN*.—*a*. To form the column for a march the commander issues the necessary orders (march order).

b. The march order includes the following information:

(1) The object and destination of the march.
(2) The distribution of the troops and order of march of the main body.

(3) Special security measures.

(4) The initial or starting point (usually on the route of march).

(5) The hour the head of the leading unit clears the initial point.

c. Ordinarily a march column is formed by the arrival of component units at an initial point according to their prescribed order of march in column.

d. When necessary, the movement of each unit is regulated by prescribing the hour at which its head reaches the initial point.

START OF THE MARCH

Units arriving at the initial point before the time designated, halt until the prescribed hour for their passage.

e. The road space occupied by units and the distance between units in march column must be considered in prescribing the time when the head of each unit passes the initial point.

Factors used in computing road spaces

<i>Element</i>	<i>Yards</i>
Infantry in column of threes (or fours), per man-----	½
One squad-----	4
Cart, hand drawn, per 4 men and cart-----	5
Bicycle-----	4
Motorcycle, with or without sidecar-----	20
Motor vehicles-----	25

NOTE.—Distances between elements are as prescribed for close-order drill.

12-8. *START OF THE MARCH.*—The most suitable time to start a day's march is one hour after daybreak. Canteens should be filled the night before the march. The sick and physically unfit should be eliminated at morning sick call. When men fall in, there should be no delay in starting; standing around is especially fatiguing. The sanitary officer and a police detail remain a few minutes after the camp is cleared to see that waste and litter is disposed of, fires put out, latrines filled, and that the camp site is left in a clean and sanitary condition.

12-9. *LENGTH OF MARCH.*—On marches of more than one day's duration, the first march of unseasoned foot troops should not exceed 6 or 8 miles. The distance is progressively increased 1 to 2 miles a day up to the normal march of seasoned troops, in order to accustom them to marching and carrying the pack. Under average conditions 10 to 12 miles constitutes a day's march for large forces.

12-10. *RATE OF MARCH.*—The marching rate should be slow until the body is warm enough for muscular action to be most efficient. The average rate should not be more than 3 miles per hour excluding halts, or 2½ miles in 50 minutes. This is the most economical rate for experienced men; for unseasoned men and for long hikes the most economical rate is somewhat slower.

12-11. *HALTS.*—*a.* A halt of about 15 minutes should be made about 30 minutes after the start. This is done to permit the men to get their second wind, adjust shoe laces, rearrange packs, and to attend to the calls of nature.

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b. Succeeding halts of 10 minutes each are made every 50 minutes, except the noon halt for dinner which is for one hour.

c. During rest periods men should remove their packs. Halts should be made in cool and shady places, protected from strong winds, convenient to places where men can attend to the calls of nature. Construction of shallow trenches will suffice for this purpose.

d. Units of a marching column execute the hourly halts and resume marching simultaneously, regulating the time by the watch. Units are not closed up nor is a change of gait permitted to gain or lose distance just prior to such halts.

e. When the column is halted for any reason other than the hourly halt, the commander halts the leading element. Other elements close to normal distance before halting.

f. Troops are informed of the length of each halt so that they can take full advantage of it.

g. The commander of each unit gives the preparatory signal for the resumption of the march shortly before the end of the rest period.

h. It is desirable to arrive at the end of the march as early in the day as practicable so that camp may be made during daylight, thus providing maximum rest for the troops; accordingly, long halts during the day are not made unless required by special conditions. On marches exceeding 15 miles or to avoid excessive midday heat, halts of from one to four hours are justified.

i. Halts are not made in or near towns or villages except to procure water or supplies; men remain in column, details being sent for what is required.

12-12. *CONDUCT OF THE MARCH.*—a. On the march, troops keep to the right of the road as far as practicable, leaving the left side free. Even on narrow roads, space should be left for messengers to pass freely along the column. When roads are sandy, muddy, or very dusty, it may be advisable to divide the column so that men and animals may pick their way along the sides of the road, leaving the middle clear.

b. Distances are maintained between units to minimize the effects of their varying march rates.

c. Men are not permitted to leave the immediate vicinity during halts without the specific authority of an officer of their unit. If the condition of the ground permits, they may be instructed to sit or lie down.

MEALS ON THE MARCH

d. An officer marches at the rear of each company; he is charged with keeping the unit closed up and with preventing straggling.

e. A guard marches at the rear of each large unit in charge of stragglers.

f. In addition to the driver only one other person is permitted to ride on a field wagon. Other personnel with the trains march in one group, under the senior present, at the rear of each transportation group. Men who accompany the field trains wear full equipment less the pack, which may be carried on the train.

g. As a rule, troops on the march pay no compliments; individuals out of ranks salute when they address, or are addressed by, a superior officer. The march is habitually at route step, permitting men to accommodate their step to their physique. To vary monotony, it is advisable occasionally to march in step for short distances.

h. Tall men at the head of the column are apt to set a pace difficult for short men at the rear of the column. As marching at the head of the column is easier, the order of march should be reversed from time to time.

12-13. *MEALS ON THE MARCH.*—Units should not be halted for the purpose of preparing the midday meal. Food (sandwiches, etc.) is prepared prior to the start and is issued to the troops. Upon arrival in camp, kitchens are set up and a hot meal, the main meal of the day, is prepared and served.

12-14. *WATER DISCIPLINE.*—*a.* Marching, like other muscular exercise, tends to elevate the body temperature 1° to 3° for marching men. To maintain a constant temperature, some means of losing body heat generated by contraction of the muscles used in walking is necessary. Nature provides for this in three ways; viz, by evaporation, by convection, and by radiation.

b. To furnish water to take the place of the fluids lost by evaporation a definite quantity of water must be consumed. Under average conditions a man will lose 1 pint of water each hour (including halts).

c. Trained men can lose 6 pints and untrained men 2 pints of water without serious discomfort. Consequently, men should not resort to their canteens until they have lost at least 2 pints by evaporation.

d. Under average conditions the first drink of water should be taken after about two hours of marching. The man should then sip slowly one-half the contents of his canteen (1 pint) and, thereafter, 1 pint each hour. On hilly or muddy roads and under tropical conditions this allowance should be materially increased.

MARCHES

e. In addition to what he drinks from his canteen, a man consumes a pint or more of water with each meal.

f. Experienced men instinctively determine the amount of water required; while the raw recruit is apt to "water log" his tissues, sweat profusely, and tire easily.

g. Smoking tends to increase thirst and should be limited to rest periods, or be prohibited during the march.

h. If possible, water carts containing potable water should be provided. It is most important that only pure water be used.

12-15. *CARE OF FEET*.—The most important factor in marching ability is the care of the feet, important considerations of which are as follows:

a. Properly fitted, regulation shoes, in good state of repair, should be worn in the field. Other type of shoes are primarily responsible for callouses, corns, blisters, abrasions, tender and sore feet.

b. Shoes should be broken in before they are worn for marching.

c. Neat's-foot oil or dubbin should be heavily applied and well rubbed into the soles and welts to preserve and partially waterproof them; but lightly applied and well kneaded into the uppers to preserve and soften them. Too much oil on the uppers makes them impermeable and prevents the moisture of the foot from evaporating.

d. Wet shoes should not be placed too near a fire, as quick drying stiffens the leather and causes it to disintegrate quickly.

e. Shoe cavities should be examined for protruding nails, wrinkles, and other inequalities. Broad laces should be used; the tongue should be smooth and lie evenly under the laces. Shoes should be laced sufficiently to hold the heel in place and prevent the foot from shifting forward in the shoe.

f. Woolen socks (heavy or light) should be worn for marching. Cotton socks should never be worn in the field unless specifically ordered by a medical officer.

g. Darned socks or socks with holes in them should never be worn on the march.

h. Socks should be large enough to permit free movement of the toes but not so loose as to permit wrinkling.

i. Change and wash the socks at the end of a day's march. If washing is impossible, change each sock to the opposite foot for the next day's march.

j. After a long march, and as soon as possible after reaching camp, the feet should be washed (not soaked) with soap and cool or tepid water. Avoid excessive use of soap and long immersion as this will

CARE OF TROOPS

soften the skin. Cold water hardens the skin, eases the sensation of burning after a march, and increases the tone of the foot. After washing, dry the feet thoroughly, paying special attention to the surfaces between the toes.

k. Feet should be inspected before and after each day's march. Injuries should be attended to promptly to prevent disabling affections which cripple the efficiency of the command. Until feet are hardened, they should be dusted with foot powder at each inspection.

l. Toenails should be kept short and clean. They should be cut straight across to avoid ingrowing nails. Deformed, thick, or clubbed nails can be remedied by soaking in hot water and paring down with a knife.

m. A blister should be drained by a puncture at the lower edge with a sterilized needle. The blister (outer or false skin) should not be torn or removed as it forms the best natural dressing. The blister should be dried with gauze or absorbent cotton and covered with adhesive plaster firmly pressed down so that the raised outer skin will be forced into position without covering the needle hole. The plaster may be made to stick well by heating it with a match before applying it. Examine carefully for all areas which are red and tender and cover them with adhesive plaster. Heel blisters should be given particular attention.

12-16. *CARE OF TROOPS.*—*a.* Detailed attention is given to adjustment of packs and equipment.

b. Use care to prevent men from obtaining unwholesome beverages and food, and from indulging in excessive eating and drinking.

c. Hot weather is one of the greatest sources of hardship on a march. Every precaution is taken to prevent suffering from this cause. Places for long halts are, when practicable, selected where there is shade and free circulation of air.

d. Men's packs are lightened when transportation is available.

e. Troops are not kept in column or under arms longer than necessary. Foresight, thoughtfulness, and good judgment does much toward mitigating the discomforts, annoyance, and hardships of marching.

f. During prolonged marches, at least one day in seven should be a day of rest.

12-17. *OBSTACLES, STREAM CROSSINGS, AND CAUSES OF DELAY.*—*a.* When there is unavoidable delay, units in rear are notified as to the minimum time involved; they then conduct themselves as at regular halts.

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b. A vehicle compelled to halt moves off the road or as far to one side as practicable. Disabled vehicles are promptly removed.

c. Careful examination is made of fords, bridges, ice, etc., before attempting a stream crossing. Foot troops break their cadence when crossing bridges. When necessary, heavy vehicles cross at increased distances.

12-18. *FORCED MARCHES.*—*a.* Forced marches seriously impair the fighting power of the best troops, and are undertaken only in cases of urgent necessity.

b. With foot troops, forced marches are generally made by increasing the number of marching hours; halts and periods for cooking and sleep being arranged to afford maximum benefit. The rules prescribed for average marches are followed as closely as possible.

c. Foot troops are favored in every way possible. They are assigned the best roads, and are not intermingled with vehicles or mounted men. If transportation is available, their packs are lightened.

SECTION II

ADVANCE GUARDS

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12-19. *DEFINITION*.—An advance guard is a security detachment that precedes and protects the main body of a force marching toward the enemy, whatever its march formation, and covers its deployment for action when contact is made.

If the force advances in more than one column, each is covered by its own advance guard. Such elements as are not covered by the advance guard in their development for action likewise provide their own security detachments. This applies particularly to troops designated to envelop a hostile flank, or to make a wide turning movement.

12-20. *SCOPE OF SECTION*.—In general, this section provides for the security measures considered necessary for the protection of a column or columns advancing into hostile territory under conditions where contact with the enemy is possible.

12-21. *TASKS OF ADVANCE GUARDS*.—The principal tasks of the advance guard are:

- (1) To insure the uninterrupted advance of the main body.
- (2) To protect it against surprise and observation by hostile ground forces.
- (3) When the enemy is encountered in such strength as to require the employment of the whole force, to cover the development of the main body for action.

12-22. *SPECIFIC DUTIES OF ADVANCE GUARDS*.—In accomplishing these tasks, advance guards are required to:

- (1) Remove obstacles and repair roads and bridges.

ADVANCE GUARDS

(2) Reconnoiter to the front and flanks to guard against surprise and to secure information.

(3) Drive back small bodies of the enemy, to prevent their observing, firing upon, or delaying the main body.

(4) Secure such terrain features as will protect the main body from hostile fire and observation, and which provide suitable positions for observing the fire of friendly supporting weapons.

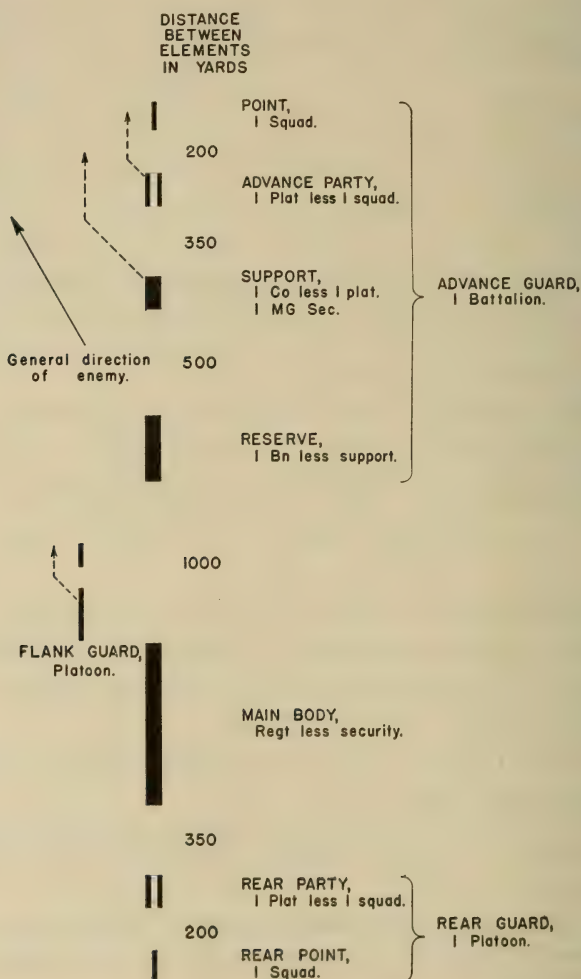


FIGURE 1.—A distribution for security of a regiment on the march (broken arrows indicate patrols).

DISTRIBUTION OF TROOPS

(5) When the advance is definitely stopped, seize suitable commanding positions to cover the development of the main body for action, and determine the strength and disposition of enemy forces and the location of his flanks.

12-23. *DISTRIBUTION OF TROOPS.*—*a.* An advance guard is generally subdivided from front to rear as follows:

Point (sent out by the advance party).

Advance party (sent out by the support).

Support.

Reserve.

b. Patrols are sent out by the advance party and support to the flanks as prescribed in the initial order (see pars. 12-27 and 12-31). Additional patrols are employed when necessary.

c. Connection between the elements of an advance guard is maintained from rear to front by connecting files, unless otherwise expressly ordered.

d. Figure 1 shows graphically a distribution for security of a regiment on the march with one battalion as advance guard. For a smaller unit on such duty, this distribution may be modified to conform to the table shown in par. 12-24.

12-24. *STRENGTH AND COMPOSITION.*—*a.* The larger the command the larger in proportion is the advance guard, because a large command takes relatively longer to prepare for action than a small one. Units functioning as advance guards have their proportion of supporting weapons. In some situations pioneers and their equipment are particularly useful.

b. The following table will serve as a guide for the maximum size of advance guards and their elements for various organizations.

TABLE 1.—*Composition of advance guards*

Main body	Advance guard, total	Subdivisions of advance guard			
		Reserve	Support	Advance party	Point
Regiment (less 1 Battalion).	1 Battalion.....	Battalion (less support).	1 Rifle Co., plus a MG sect. (less advance party).	1 platoon (less point).	1 squad.
Battalion (less 1 Co. and less 1 MG sect.).	1 Company, plus a MG sect.	None.....	1 Rifle Co., plus a MG sect. (less advance party).	1 platoon (less point).	1 squad.
Company (less 1 platoon).	1 platoon.....	None.....	None.....	1 platoon (less point).	1 squad.
Platoon (less 1 squad).	1 squad.....	None.....	None.....	None.....	1 squad.

ADVANCE GUARDS

12-25. *FORMATION AND DISTANCES.*—*a.* In order to give the elements of an advance guard and the main body time and space to carry out their missions it is necessary for them to advance with distances between them. These distances are in addition to the road spaces occupied by each element. None of these distances are set. They vary with the mission of the whole command, the size of the elements, the terrain, the proximity to and nature of the enemy, and visibility such as daylight, darkness, or fog. Distances should be less in rolling country, where successive positions afford protection, than in open, flat country. They should be less at night than in the day. They should be less when pursuing a beaten enemy than when approaching an unbeaten one.

b. Subject to the foregoing, the following table is furnished as a guide.

TABLE 2.—*Formation of advance guards*

Element	Formation	Distance to element next in rear (yards)	Remarks
Point.....	Squad column.....	150 to 250	Not less than 5 yards distance between men. Not less than 5 yards distance between men.
Advance party.....	Column of twos, 1 file on each side of the road.	300 to 450	
Support.....	Column of threes or fours.....	400 to 600	
Reserve.....	Column of threes or fours.....	800 to 1,200	

c. Situations may occur where the best means of covering the head and flanks of the column will be by a line of skirmishers or small groups extending for several hundred yards to both sides of the road, and deployed at intervals of from 10 to 50 yards. A column may thus protect itself when passing through country covered with high corn or similar vegetation.

12-26. *THE POINT.*—*a.* The point is a patrol sent forward by the advance party to give rear elements warning of the presence of hostile forces. It reconnoiters to the front and immediate flanks and sends to the rear all information obtained.

b. The point confines its activities to the axis of march, and drives back all small hostile parties encountered. When large hostile bodies are observed it pushes on until forced to halt by fire; when troops in rear are halted by fire it covers their deployment or, if such protection is unnecessary, acting as a patrol, it makes every effort to locate the enemy flanks and to determine the amount of the resistance. Different action may be required depending upon the

THE ADVANCE PARTY

mission of the command as a whole; e. g., should reconnaissance be paramount the point would be ordered to halt, conceal itself, observe, and send back information whenever hostile activities are encountered.

c. The point usually regulates its march on the advance party, one member being detailed to observe to the rear, to maintain distance, and to receive signals.

12-27. *THE ADVANCE PARTY.*—*a.* The advance party is sent forward by, and constitutes the reconnoitering element of, the support. It is made strong enough to guard the support against surprise by effective hostile rifle fire. To accomplish this it—

(1) Provides the point.

(2) Supports the action of the point.

(3) Furnishes patrols for reconnaissance to the flanks.

b. *Action of advance party when resistance is met.*—The advance party drives back enemy patrols and takes care of minor resistance which the point is unable to overcome. It checks an attack sufficiently to cover the deployment of the support.

c. *The advance-party commander.*—The advance-party commander is usually responsible for the route of march and for the regulation of the rate of march for the entire column.

12-28. *THE SUPPORT.*—*a.* The support secures the march of the reserve. It provides for the execution of reconnaissance and for its own security by sending forward an advance party.

b. *Action of the support when resistance is encountered.*—The support reinforces the action of its advance party in dealing with minor resistance, or when the enemy is encountered in force it offers sufficient resistance to permit the reserve to prepare for action in accordance with a definite plan.

c. *The support commander.*—The support commander gives definite instructions as to what patrolling will be done by the advance party, and orders such patrolling by the support as can not be accomplished by the advance party. He marches where he can quickly see and estimate the situation when fired on, usually with the advance party or between it and the support.

12-29. *THE RESERVE.*—*a.* The reserve constitutes the maneuvering and offensive element of the advance guard. It, therefore, comprises as large a part of the advance guard as is consistent with its own security and with the preservation of its maneuvering power.

ADVANCE GUARDS

Artillery and pioneers forming a part of the advance guard are usually attached to the reserve.

b. It is employed by the advance-guard commander in accordance with the principles of attack, defense, or delaying action, according to his mission.

c. Action of the reserve when resistance is encountered.—(1) Ordinarily, when the head of the column is stopped by the enemy, the reserve will be beyond the effective range of small arms fire, permitting the adoption of a well formulated plan based upon the tasks assigned to the force as a whole. The main body must be protected while making its dispositions, but against a strong enemy the reserve must not be committed to action which would later prevent the concerted action of the entire force against the enemy. Aggressive action is justified against an inferior force or to secure advantages which contribute to the tactical success or security of the main body.

(2) The reserve, when employed against the enemy, acts as a unit. It does not dissipate its strength by piecemeal reinforcement, or by engaging in minor affairs.

12-30. *CONNECTING ELEMENTS.—a.* Connection between elements of the column is maintained by 1 or 2 men placed in the space between the elements. These men are called *connecting files*. Contact is usually maintained from rear to front, and therefore, connecting files are sent forward from the element in rear to maintain contact with the element next in front. They are so spaced that each file remains in constant view of the next following and next leading file or unit. When visibility is good 1 or 2 connecting files may be sufficient; in darkness or on roads with poor visibility a larger number is needed.

b. Connecting files halt on orders or signals from the rear, or when the point halts, relaying the signal to the front or rear.

c. Connecting files look alternately to the rear and to the front for signals and run, walk, and halt as necessary to maintain contact both to the front and rear.

12-31. *PATROLLING.—a.* Patrols are sent out from the advance party or support to reconnoiter to the front and flanks, especially to localities such as high ground and wooded areas that might conceal hostile reconnoitering or combat patrols.

b. The formation of the patrol must provide for its own protection and permit at least one man (the get-away man) to return with in-

PATROLLING

formation if the patrol is seriously engaged. Normally the strength of a reconnaissance patrol is from 2 to 6 men.

c. Information of the enemy is immediately signalled or carried back by messenger to the column.

d. Under certain conditions a patrol may be ordered to remain at a locality as flank guard.

e. After completing its mission the patrol joins the most convenient element of the column, rejoining its own element at the first opportunity.

f. When the strength of the advance party and support has been seriously reduced by absent patrols, reinforcements should be furnished from rear elements.

SECTION III

REAR GUARDS

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Delaying action.....	12-35	20

12-32. *DEFINITION.*—A rear guard is a security detachment that follows and protects the rear of a marching or retreating force.

12-33. *MISSION.*—*a. The mission of a rear guard is—*

(1) To relieve the main body from the necessity of engaging in battle.

(2) To enable the main body to regain freedom of action.

(3) To insure the uninterrupted retirement of the main body.

(4) To protect it against hostile attack and ground observation.

b. The rear guard accomplishes its mission by performing any or all of the following duties:

(1) Observes and maintains contact with the enemy.

(2) Impedes the hostile pursuit by mechanical means; such as, the destruction of bridges and the use of obstacles.

(3) Selects and occupies suitable delaying positions from which to check the hostile advance.

(4) Fights delaying actions.

(5) Executes withdrawals without becoming seriously involved.

(6) Takes security measures during temporary halts.

(7) Reconnaissance.

(8) Sacrifices itself, if necessary, so that the main body may get away safely.

12-34. *GENERAL.*—The distribution, strength and composition, formations and distances, and conduct of the rear guard and its subdivisions are similar to that of the advance guard and its subdivisions except as follows:

a. Distribution of troops.—The subdivisions are arranged in inverse order to those of an advance guard.

b. Strength and composition.—A rear guard protecting a retreating force cannot depend upon reinforcements; therefore, it should be

REAR GUARDS

made large enough to fulfill its mission without support. A rear guard is usually strong in machine guns and 81-mm mortars on account of their power to force deployment at long range and delay the hostile advance.

12-35. *DELAYING ACTION*.—*a*. When an enemy forces the rear guard to fight, it protects the rear of the main body by a stubborn defense in one position or in successive positions, depending on the celerity of movement of the main body, the number of positions suitable for defense, and the strength and aggressiveness of the enemy. Where the retreat progresses favorably and the terrain is suitable for defense, the rear guard fights delaying actions in successive positions, each so conducted as to force the enemy to deploy at long range and to launch an attack, and so timed that the rear guard can break off the engagement and withdraw before becoming decisively engaged. For such type action, the rear guard is disposed in several echelons, each capable of protecting the element in front of it when it is withdrawn to move to a position still farther in rear. Such movement must always be made so as not to mask the fire of the covering elements.

b. Delaying positions should have the following characteristics:

- (1) A clear field of fire to the front and flanks to the effective long range of infantry weapons (800 to 1,200 yards).
- (2) Provide cover and concealment for troops withdrawing from one position to the next.
- (3) Prevent or retard enemy flanking or turning movements.

SECTION IV

FLANK GUARDS

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12-36. *DEFINITION*.—A flank guard is a security detachment which covers and protects the flank of a body of troops on the march.

12-37. *MISSION*.—*a*. The mission of a flank guard is to prevent the enemy from bringing effective flanking fire to bear on the main body of the marching column.

b. A flank guard accomplishes its mission by one or more of the following methods:

(1) Marches abreast of and in a direction generally parallel to the main column.

(2) Secures a single position covering the routes of hostile approach before the main body arrives abreast of the position, and occupies it until the main body has passed, then rejoins the column. This method is employed when the locality from which an attack might be expected is well defined.

(3) Occupies key positions successively, when several dangerous localities must be passed and when it is practicable for the flank guard to move from one position to the next without exposing the main body to attack.

12-38. *FORMATION*.—A flank guard takes a formation which provides for its own frontal and flank security and which, at the same time, conforms with its mission.

12-39. *MOBILITY*.—Flank-guard duty requires a high degree of mobility. Usually flank guards must cover greater distances than the main body in the same or in a shorter period of time.

12-40. *CONTACT WITH THE MAIN BODY*.—*a*. Effective communication must be maintained between the flank guard and the main body.

b. Such contact is normally maintained by two-man patrols sent out from the main body, but if not provided, the flank guard commander is not relieved from the responsibility of maintaining contact.

SECTION V

OUTPOSTS

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12-41. *DEFINITION*.—An outpost is a security detachment thrown out by a command, when halted or when deployed for defense, for protection against hostile ground troops.

12-42. *CLASSIFICATION*.—The following outposts are described herein: (1) March outposts; (2) Bivouac outposts. (For outpost security when occupying defensive battle positions see chapters 15 and 16.)

a. March outposts.—March outposts are those which are established when the command is halted for a short period or those which are thrown out for temporary protection while the bivouac outpost is being established. Those established during the periodic rest-halts may consist only of a few sentinels or small groups sent to points of vantage, while those established for a halt of a longer duration are more highly organized and have greater resisting powers.

b. Bivouac outposts.—Bivouac outposts are stronger and more elaborate in formation than march outposts. They are used to protect a force that occupies a bivouac or camp area, or town near enough to the enemy to require security measures.

12-43. *MISSION*.—*a.* The mission of an outpost is—

- (1) To insure rest for the remainder of the command.
- (2) To furnish the command with information of the enemy.
- (3) To prevent the enemy from gaining information.
- (4) To give warning of a hostile attack.

(5) To develop enemy dispositions and delay the hostile attack in order that the commander of the whole force may effect suitable measures for combat.

OUTPOSTS

b. A bivouac outpost performs its reconnaissance function by observing and, if possible, by gaining and maintaining contact with the enemy. Counter-reconnaissance measures include the establishment of an adequate and alert observation net along the outpost line sufficient to prevent penetration by hostile patrols and scouts. The bivouac outpost's mission of resistance requires it to stop raids and local attacks, and to resist attacks in force.

c. Special precautions.—The most probable time for a hostile attack is in the late afternoon or at daybreak. Therefore, special precautions should be taken at these times. The outpost should be held in readiness and patrolling in front of the line of observation should be increased.

12-44. *OUTPOST POSITION.*—*a. Frontage.*—(1) When both flanks of the outpost area are protected by natural terrain features or by friendly troops, the outpost extends across the position to be defended on a generally straight line. The advance guard usually establishes the outpost of an advancing force. In a retirement or withdrawal, the outpost is usually established by the main body and when so established, the rear guard is relieved when it crosses the outpost position.

(2) If one flank is protected, the outpost forms a roughly semi-circular line covering the exposed front and flank (see fig. 2). Advance and flank guards usually establish this outpost; but where no flank guards were provided during the march, the main body is required to provide the additional troops necessary for outpost security on the exposed flank.

(3) When a force requires all-round protection; the advance guard, flank guards, and rear guard may occupy an outpost position surrounding the main body.

b. Distance from the main body.—The outpost is established far enough from the shelter area to protect the command from hostile rifle and machine-gun fire. The distance, however, must not be such that the outpost is liable to be cut off from the main body, or that an undue number of men is required.

12-45. *THE ORGANIZATION COMMANDER'S OUTPOST PLAN.*—The commander of the entire force will usually cause the outpost to be established in accordance with one of the following plans (see fig. 2):

First plan.—*To provide for security by observation.*—This is the simplest form of outpost in which an outpost line of observation is established. It is particularly desirable in the case of small units.

ELEMENTS

In this case the main body organizes a main line of resistance; however, this is not a part of the outpost.

Second plan.—When it becomes necessary to provide for additional security and to counterattack by the use of large reserves from the main body.—In this case a strong outpost is established consisting of an outpost line of resistance (line of supports) which in turn establishes a line of observation (line of outguards). The distance between these two lines may vary considerably in the same outpost, and even coincide in some localities. Reinforced by the outpost reserve, the outpost develops and delays an attack in force in order to afford time to dispose troops of the main body on the outpost line of resistance, whereupon it becomes the main line of resistance.

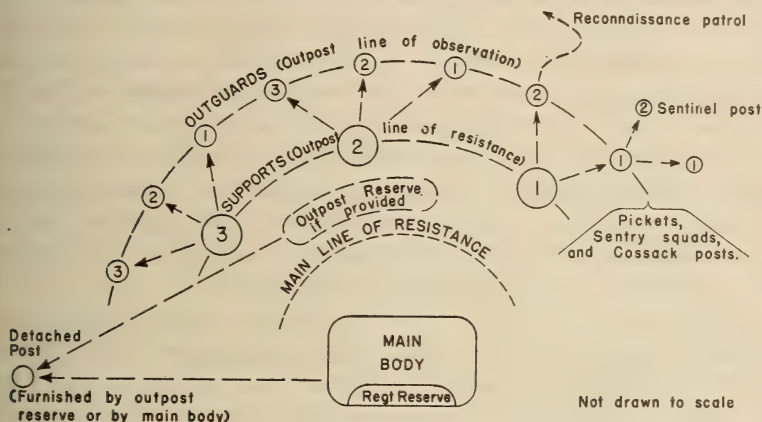


FIGURE 2.—Distribution of a battalion as an outpost for a regiment.

Third plan.—To provide for security by passive defense without employment of an outpost reserve.—In this case an outpost is established consisting of an outpost line of resistance (line of supports) which in turn establishes an outpost line of observation (line of outguards). The outpost delays an attack in force until troops of the main body have occupied a main line of resistance, in rear of the outpost line. The outpost then withdraws to the flanks, and joins the reserve of the main body. In this plan there are two lines of resistance, i. e., the outpost line which is part of the outpost and the main position which is defended by the main body.

12-46. *ELEMENTS.*—*a.* The elements of an outpost from front to rear are: Outguards, supports, and reserve (see fig. 2). Detached posts are established as may be required, and patrols are sent out as

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may be necessary or desirable. An outpost consisting of 1 battalion or less usually has no reserve.

b. The reserve.—The reserve is that element of the outpost which is held in readiness at some central position where it may reinforce the outpost line of resistance or launch a counterattack; or where the outpost is assigned a delaying mission, it assists the support in effecting a withdrawal. Its strength varies from one-fourth to two-thirds of the outpost.

c. The supports.—The supports are those elements of an outpost which are usually located on or near the outpost line of resistance for the defense of this line and for the support of the outguards. A support varies in strength from a platoon to a company. Supports are numbered consecutively from right to left in each outpost. Each support is assigned a sector, the lateral limits of which are clearly defined by reference to terrain features which can easily be recognized on the ground, but roads and sensitive points should be definitely included in a sector, rather than on the boundary between sectors. Responsibility for their defense can not be divided between two adjacent supports. In proximity to the enemy, each support is organized for defense with an adequate field of fire to the front and for mutually supporting fires between adjacent supports. Each support covers its sector with outguards and patrols.

d. Outguards.—(1) *Duties.*—Outguards are security detachments sent out by supports. Their chief duty is that of observation. Nevertheless they resist small hostile reconnoitering groups and fire upon the enemy in case of a surprise attack, to give warning to the supports. Each outguard covers its sector with single sentinels, double sentinels, or patrols, according to its needs for observation and its size. Outguards also are numbered from right to left consecutively in each support.

(2) *Classification.*—According to their strength, outguards are classified as pickets, sentry squads, and cossack posts.

(a) *Pickets.*—Two or more squads comprise a picket. Usually the strength does not exceed that of a platoon, and depends upon the number of observation groups it has to furnish. Pickets are located at the more important points in the line of outguards, such as road junctions. They furnish patrols and one or more sentinel posts. If more than one, sentinel posts are numbered consecutively from right to left in each picket.

(b) *Sentry squads.*—An outguard consisting of one squad is a sentry squad and posts a double sentinel at one sentinel post. The remaining men furnish reliefs for these sentinels.

ESTABLISHING AN OUTPOST

(c) *Cossack posts*.—A cossack post is an outguard which consists of four men, including the outguard commander. It establishes a single sentinel post with three reliefs.

(3) *Location and conduct*.—(a) Positions at a short distance from the support may be held by cossack posts or sentry squads. Important posts at a distance where support is more difficult are held by pickets.

(b) It is a general rule that positions occupied by outguards and sentinels during the day are changed at night in order to lessen the probability of surprise and capture by the enemy and to obtain better night-time observation. The topographical crest of a ridge is usually best for observing during the day. A position well down the reverse slope of the ridge gives better observation on a dark night, as it is easier to see any hostile movement on the skyline of the high ground toward the enemy.

(c) At all times all elements of an outpost must conceal their dispositions and movements.

e. *Patrols*.—Patrols of from 2 to 4 men are used in the outpost for communication between the elements, for security, and for reconnaissance. Larger patrols sent out to a distance are usually provided by the reserve or the main body. Outpost duty causes great fatigue because of lack of sleep and tension from unremitted vigilance; hence, the least number of men that can protect the command should be employed. Economy of personnel may be effected by substituting patrols for outguards where patrols are deemed adequate.

f. *Detached posts*.—(1) Detached posts are established when it is necessary to occupy and defend an important locality, which can not be included within the outpost sectors and can not be relieved or reinforced by the outpost in case of attack.

(2) Such positions are often located on the flanks of the outpost.

(3) The garrison for a detached post may be provided by the outpost detachment or by the main body.

(4) The strength of a detached post depends upon the importance of the locality which must be occupied, its distance from the main body and the size and composition of the command. It usually consists of not more than a company, reinforced with machine guns.

(5) Detached posts are subject to attack from any direction and must be prepared for an all-round defense.

12-47. *ESTABLISHING AN OUTPOST*.—a. *Outpost commander*.—The commander of the whole force assigns a general mission to the outpost. The outpost commander reconnoiters the posi-

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tion, issues his outpost order and verifies the disposition of troops as soon as they occupy the position. While on inspection he issues such modifications or additional instructions as he deems necessary. After completing all dispositions, he sends a report of the location and strength of all elements of the outpost, to the commander of the main body. He establishes his command post with the reserve of the outpost.

b. Reserve commander.—Upon receipt of the outpost order, the reserve commander marches the reserve to its shelter area. He sends out such detachments as have been ordered and places the reserve (less detachments) in bivouac or in such other shelter as is available. He provides for at least one sentinel to guard the bivouac, and for all necessary patrols. These include visiting patrols and reconnaissance patrols. He normally issues instructions to patrols and other detachments sent out. He reconnoiters routes from the post of the reserve to the supports and prescribes the action to be taken in case of attack.

c. Support commander.—Upon receipt of the outpost order, support commanders march their troops to their assigned positions, being careful to provide necessary covering detachments when they pass beyond the march outpost. After making such ground reconnaissance as there is time for, each issues his order. In disposing a support, its commander seeks to cover his sector in such a manner that the enemy cannot reach or pass through his part of the position unobserved. However, he should be economical in the number of observers and patrols employed. Usually less than one-half the support is detailed on such duty at a time. After outguards have been sent out and taken their dispositions, the support commander inspects them and makes such changes as he deems necessary. He then visits adjacent supports, consults their commanders, notes their disposition and arranges for such additional changes as may be desirable in his own or adjacent supports. As soon as his inspection and dispositions are completed, he sends a report to the outpost commander giving his dispositions, including the patrolling plan, accompanied by a sketch.

d. Outguard commanders.—(1) Each outguard commander marches his detachment, covered by one or more security patrols, to its assigned station. There he explains the situation and designates sentinels and reliefs for each post. If his outguard is to furnish patrols, he designates these also.

RELIEF

(2) He then posts the sentinels, points out to each the principal terrain features, such as towns, roads, hills, and streams, naming them; indicates the location and direction of the enemy and of adjacent friendly elements or units; designates the number of his post; informs him as to any friendly patrols operating to his front; cautions him with regard to directions to be especially watched; what he should do in case of attack and at other times; and informs him as to special signals and instructions.

(3) If he sends out a patrol, he gives it like information, as well as its mission, the general route to be followed, the sentinel posts it will pass going and coming (usually not the same), and the time of its departure and return.

12-48. *RELIEF*.—*a*. The outpost of a small command is usually relieved daily. That of a large force may remain on duty for several days. An outpost should not be relieved when hostile attack is probable as new troops may not have time to organize and become familiar with the terrain and the situation before being engaged.

b. When the advance is begun or resumed, the outpost stands relieved when the support of the advance guard clears the line of resistance of the outpost. Irregulars have a tendency to fire into small organizations while they are breaking camp and to ambush them as they march out of the bivouac area.



LANDING-FORCE MANUAL

UNITED STATES NAVY

1938



CHAPTER 13

TENT DRILL AND SHELTER

(Reprinted 1941 with all changes up to and including No. 5)



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FOREWORD

The Landing-Force Manual, U. S. Navy, 1938, is published in nineteen chapters as follows:

- CHAPTER 1. INTRODUCTION.
- CHAPTER 2. INDIVIDUAL INSTRUCTION WITHOUT ARMS AND WITH ARMS (RIFLE, AUTOMATIC RIFLE, SUBMACHINE GUN, PISTOL, AND BAYONET).
- CHAPTER 3. DRILL, THE SQUAD, PLATOON, AND COMPANY.
- CHAPTER 4. FORMATIONS OF THE BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 5. CART DRILL.
- CHAPTER 6. DRILL, MACHINE GUN, CALIBER .30.
- CHAPTER 7. DRILL, THE SPECIAL WEAPONS PLATOON (37-MM GUN AND 81-MM MORTAR).
- CHAPTER 8. DRILL, ARTILLERY.
- CHAPTER 9. THE INFANTRY PACK, AND DISPLAY OF EQUIPMENT AND CLOTHING.
- CHAPTER 10. CEREMONIES; AND MANUAL OF THE COLOR, SWORD, AND GUIDON.
- CHAPTER 11. INTERIOR GUARD DUTY AND GUARD MOUNTING.
- CHAPTER 12. MARCHES, SECURITY ON THE MARCH, AND OUTPOSTS.
- CHAPTER 13. TENT DRILL AND SHELTER.
- CHAPTER 14. FIELD SANITATION, PERSONAL HYGIENE, AND FIRST AID.
- CHAPTER 15. EXTENDED-ORDER EXERCISES, COMBAT PRINCIPLES OF THE RIFLE SQUAD AND PLATOON, AND COMBAT SIGNALS.
- CHAPTER 16. TACTICS AND TECHNIQUE OF THE RIFLE COMPANY AND INFANTRY BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 17. THE DEFENSE AND ATTACK OF CITIES, RIOT DUTY, AND NATIONAL DISASTERS.
- CHAPTER 18. PHYSICAL DRILL.
- CHAPTER 19. SMALL ARMS MARKSMANSHIP.

LANDING-FORCE MANUAL

UNITED STATES NAVY

CHAPTER 13

TENT DRILL AND SHELTER

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SECTION I

PITCHING SINGLE SHELTER TENTS

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13-1. *PURPOSE*.—The purpose of this instruction is to enable a commander to establish his unit rapidly and correctly in single shelter tents, arranged in a neat and orderly way.

13-2. *FORMATION*.—Normally platoons form in line and companies form in column or platoons to pitch shelter tents. If the terrain does not permit this formation the company commander indicates the general disposition for platoons.

13-3. *COMMANDS*.—*a.* 1. *Form for shelter tents to the left (right)*, 2. *MARCH*, 3. *Dress right (left)*, 4. *DRESS*, 5. *Ready*, 6. *FRONT*, 7. *COUNT OFF*.

b. PITCH TENTS.

13-4. *EXECUTION*.—*a. Forming*.—At the commands given in paragraph 13-3*a*, the movements are executed as prescribed in paragraphs 3-32*a*, *b*, and *c*, LFM.

b. Pitching tents.—(1) At the command *Pitch tents*, each odd numbered man draws his bayonet and thrusts it into the ground, ring to the front, outside of and against his left heel near the instep. The bayonet marks the position for the front pole of the tent. Men armed with the pistol mark the place with the left heel.

(2) Each man steps off obliquely a full pace to the right with the right foot, lays his rifle on the ground, muzzle to the front, barrel to the left, butt near the right toe. He then steps back into place. Men then unsling equipment and place the packs in front of them; open their packs and remove their shelter halves, poles, and pins.

Odd and even numbers (Nos. 1 and 2; Nos. 3 and 4; etc.) pitch tents together. They spread their shelter halves on the ground the

PITCHING SINGLE SHELTER TENTS

tent is to occupy, triangle to the rear, buttons to the center, the odd numbered man's half on the right.

(3) They then button the halves together along the ridge. The odd numbered man adjusts his pole, inserts its small end through inner pair of front eyelets of the tent, and holds the pole upright beside the bayonet. The even numbered man pins down the front corners of the tent in line with the bayonets, and drives the front guy pin a rifle length in front of the front pole. If not armed with the rifle, he measures off, on the tent rope, the distance from the base of the front tent pole to the right or left front tent pin and drives the front

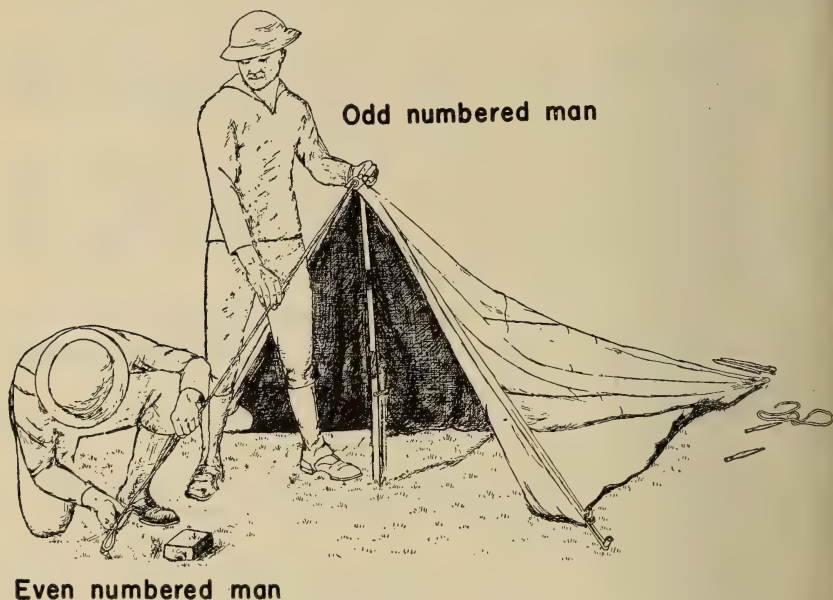


FIGURE 1.—Pitching shelter tent, front end.

guy pin this distance in front of the front tent pole (the distance from the base of a tent pole to its corresponding corner tent pin being equal to the length of a rifle). He places the loop of the guy rope alongside the front guy pin and hands the other end to the odd numbered man who passes it through the outer pair of the front eyelets from top to bottom, and ties it in a knot so that it will hold the pole vertical when the rope is taut.

The even numbered man then places the loop of the guy rope over the front guy pin. (See fig. 1.) Both men then proceed to the rear of their tent. The even numbered man adjusts his pole and guy rope

INSPECTION OF TENTS, ETC.

as described above, while the odd numbered man pins the rear tent corners and drives the rear guy pin, adjusts the rear guy rope, buttons the triangular ends together, and pins the rear triangle. The even numbered man drives the remaining pins on the right and the odd numbered man drives them on the left. (See fig. 2.) The hand axe and pick-mattock may be used to drive tent pins. The shovel and bayonet will not be used for this purpose.

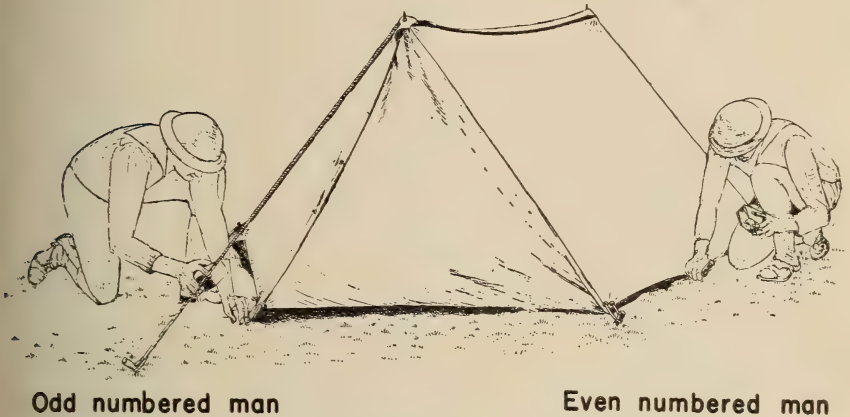


FIGURE 2.—Pitching shelter tent, rear end.

13-5. *INSPECTION OF TENTS AND EQUIPMENT.*—*a.* After tents are pitched, and when directed to lay out equipment for inspection, each man arranges the contents of his pack in front of his own half of the tent as prescribed in chapter 9. After the equipment is laid out, the organization commander commands: **PREPARE FOR INSPECTION.** At this command each man stands at attention by the side of his own shelter half, toes on line with the front corner tent pins. The commander then inspects the tents and equipment.

b. Laying out equipment may be dispensed with.

13-6. *SUPERVISION.*—Platoon leaders supervise their platoons. They are responsible for an exact alignment of the poles and guy-rope pins.

SECTION II

PITCHING DOUBLE SHELTER TENTS

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13-7. *PURPOSE*.—The purpose of this instruction is to establish the unit rapidly and correctly in a double tent camp, arranged in a neat and orderly manner. The double tent is preferable to the single tent in cold or inclement weather because it affords superior shelter. It is useful in restricted areas, because of its greater concentration of personnel. The double tent is composed of two single tents buttoned together at the square ends. The tent is supported by three poles; one in the center and one at each end. Two guy ropes are attached to each end. Guy pins are in line with the side pins of the tent. Each set of fours (Nos. 1, 2, 3, and 4; Nos. 5, 6, 7, and 8, etc.) pitch and occupy one double tent.

13-8. *FORMATION*.—As for single tents, par. 13-2.

13-9. *COMMANDS*.—*a.* 1. **Form for shelter tents to the left (right)**, 2. **MARCH**, 3. **Dress right (left)**, 4. **DRESS**, 5. **Ready**, 6. **FRONT**, 7. **COUNT OFF**.

b. **PITCH DOUBLE TENTS**.

13-10. *EXECUTION*.—*a. Forming*.—At the commands given in paragraph 13-9*a*, the movements are executed as in paragraphs 3-32*a*, *b*, and *c*, LFM.

b. Pitching double tents.—(1) At the command **Pitch double tents**, all men proceed as for single tents, par. 13-4*b*, except that only every fourth man (Nos. 1, 5, 9, etc.), marks the line with his bayonet.

(2) After bayonets have been placed, all men spread their shelter halves on the ground to be occupied by their respective tents. Odd numbered men place their shelter halves with triangles to the front; the even numbered men place theirs with the triangles to the rear.

PITCHING DOUBLE SHELTER TENTS

(3) They button together the four shelter halves of each tent, the ridges first, then the square ends. The odd numbers insert and support the front and rear poles, the front pole in contact with the bayonet, the rear pole in a line with it perpendicular to the line of bayonets. The even numbers pin the front and rear corners of the tent. One even number then enters the tent with his pole and, assisted by the other even number, adjusts the pole to the center of the shelter halves. He inserts the top of the pole, in the following order, through the eyelets of the lower half of the front tent, the lower half of the rear tent, the upper half of the front tent, and the upper half of the rear tent. The even numbers then fasten the guy ropes and all drive the remaining pins and turn back the 4 triangular ends.

13-11. *INSPECTION OF DOUBLE TENTS AND EQUIPMENT.*—*a.* After the double tents are pitched, and when directed to lay out equipment for inspection, each man arranges the contents of his pack in front of his own shelter half as prescribed in chapter 9 (The double tent is open at both ends.) After the equipment is laid out, the organization commander commands: **PREPARE FOR INSPECTION.** At this command each man stands at attention by the side of his own shelter half, facing outward, toes on line with the corner tent pins. The organization commander then inspects the tent and equipment.

b. Laying out of equipment may be dispensed with.

SECTION III

TO STRIKE SHELTER TENTS

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13-12. *TO STRIKE TENTS*.—*a*. At the command ***Strike tents***, the men remove their equipment from the tents, pull up pins, unbutton the halves, and make up their packs. They sling their equipment and stand at attention in the positions originally occupied after taking interval before the command ***Pitch tents***. The unit is then assembled by appropriate command for the desired formation.

b. When it is desired to strike tents simultaneously, *The General* is sounded as a signal for striking tents. They are prepared for striking by pulling up the pins but are held in an upright position by one man at each pole until the last note of the bugle, when all are caused to fall simultaneously to the right or as may be otherwise previously directed.

SECTION IV

TO PITCH, STRIKE, AND FOLD COMMON AND WALL TENTS

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Folding common and wall tents.....	13-15	11

13-13. *PITCHING COMMON AND WALL TENTS.*—*a. Preliminary arrangements.*—The officer in charge selects suitable ground. He indicates the direction in which the tent is to face, the line on which the tent is to be placed, and the position of the door pin. Four men are required to pitch each tent.

b. Procedure for each tent.—Drive a pin to mark the center of the door. Spread the tent on the ground it is to occupy, and place door loops over the door pin. Draw front corners taut, align them, and peg them down. Lace the rear door if there is one. Draw rear corners taut and peg them down. Drive the four corner guy pins in prolongation of the diagonals of the tent and about two paces beyond the corner pins. Loosen the front door and lee corner loops from the front door and corner pins. Insert the ridge pole between the ventilation strip and the tent ridge. Insert the upright eyelet pins in the ridge pole and in the eyelets of the tent. Place the fly eyelets over the end-pole eyelet pins. Raise tent and hold it in position. Replace the lee corner loops and secure and tighten the corner and fly guy ropes to hold the poles vertical. Drive the wall pins through the open loops as they hang. Drive the intermediate guy pins in alignment with the corner guy pins.

13-14. *STRIKING COMMON AND WALL TENTS.*—*a. Remove* all pins except those of the four corner guy ropes. Pull the pins and place them neatly in a receptacle. With one man on each corner guy rope, lower the tent. Remove the poles and fold the tent. Fasten the poles together and collect the remaining pins.

b. To strike tents simultaneously see par. 13-12 b.

13-15. *FOLDING COMMON AND WALL TENTS.*—Spread the tent flat on the ground, folded at the ridge so that the bottoms of the side walls are even, ends of the tent forming triangles to the right and left. Fold the triangular ends of the tent in toward the middle

TO PITCH, STRIKE, AND FOLD COMMON AND WALL TENTS

to form a rectangle. Fold the top over about nine inches. Fold the tent in two by carrying the top fold over to the foot, and again from the top to the foot. Throw all guy ropes on the tent except the second from each end. Fold the ends in so as to cover about two-thirds of the second widths. Fold the left end over to meet the turned-in edge of the top right end; fold the right end over the top right end; then the right end over the top, completing the bundle. Tie the bundle with the two exposed guy ropes.

SECTION V

SHELTER

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13-16. *GENERAL*.—*a.* Good shelter contributes greatly to the maintenance of the efficiency of troops in the field. The underlying principle is to utilize and improve the best available facilities for shelter as far as is consistent with the situation.

b. According to circumstances, troops are sheltered in bivouac, camps, or billets.

(1) Troops at rest are in *bivouac* when not provided with overhead cover or when covered by shelter tents or hastily improvised shelter. On marches or in the presence of the enemy, troops are frequently forced to bivouac, but in fine weather, in midsummer, or in the dry season in the tropics, they may do so from choice. For tactical purposes, bivouacs are very convenient, but because of sanitary reasons they are resorted to, except for overnight halts, only when necessary. The general principles governing the selection of camp sites apply to bivouacs.

(2) Troops are in *camp* when sheltered by tentage other than shelter tents or when quartered in cantonments; that is, huts or other temporary structures especially constructed for military purposes.

(3) Troops are in *billets* when they occupy private or public buildings not especially designed for military purposes. Billets afford excellent shelter and permit the screening of troops from aerial observation; they have, moreover, the advantage of offering shelter in an immediately available form which does not require an expenditure of labor or material. Billets do not, however, favor a high degree of readiness for action, and the tactical situation usually renders their use inadvisable in close proximity to the enemy. The danger of the transmission of disease inherent in billeting requires careful inspections and strict enforcement of sanitary rules. Billeting in the United States and its possessions is limited by an amendment to the Constitution, which provides that "No soldier shall, in time of peace, be quartered in any house without the consent of the

SHELTER

owner; nor in time of war, but in a manner to be prescribed by law." Use may be made of public buildings when available, or private buildings may be rented. Families are not removed from their dwellings when it can be avoided.

13-17. *SELECTION OF A CAMP SITE.*—*a.* In ample time before the end of a day's march a line officer, a medical officer, and a supply officer should ride forward and select a camp site, unless one has been previously arranged. It is difficult to locate an ideal camp site which is entirely satisfactory from a sanitary viewpoint. In time of war tactical considerations have priority over local conditions.

b. Points to be considered in determining the location of a camp.—

FAVORABLE CONSIDERATIONS

1. Accessibility to good water, fuel, and forage.
2. Sandy, loam, or gravel soil.
3. Elevated site, well drained.
4. Shade trees, in warm weather.
5. Hills and forests as windbreaks in cold weather.
6. Should be large enough to accommodate the command.
7. Grass-covered location.
8. Accessible to good roads.

UNFAVORABLE CONSIDERATIONS

1. Sites occupied within two months by other units.
2. Clay, alluvial, or dusty soil.
3. Dry river bed, ravine, and base of hill, if there is a likelihood of rain.
4. Proximity to marshes, swamps, and mosquito breeding areas.
5. Steep slopes.
6. Sites where the ground water is near the surface.
7. Proximity to native habitations, especially in malarial regions.
8. Inaccessible; poor roads or none in the vicinity.

13-18. *ESTABLISHING THE CAMP.*—*a.* The following provisions will be made for shelter:

- (1) Establish the outpost if necessary (see chapter 12).
- (2) Establish the interior guard (see chapter 11).
- (3) Post guards to enforce proper use of the water supply (see chapter 14).
- (4) Set up kitchen.
- (5) Furnish details to pitch hospital, headquarters, and officers' tents; procure fuel, water, forage, etc.; and prepare latrine and kitchen pits.

ESTABLISHING THE CAMP

(6) Troops pitch tents of enlisted personnel.

b. Details for the above should be made prior to arrival at the camp site, preferably before starting the march; to avoid confusion, insure order, and save time.

c. Ditch the tents as soon as put up, even if camp is only for one night. A little rain may spoil a whole night's rest.

d. Insure proper ventilation of quarters, especially at night. Bedding should be aired twice a week. Tent walls should be rolled daily and the tents furled once a week, weather permitting.

e. See that cooking is carried out in as sanitary a manner as possible and that food is protected from dirt and flies, both before and after cooking. Have food products whose condition is doubtful inspected by a medical officer before being used.

f. Observe the regulations governing physical inspections and the inspection of food handlers and barbers.

g. Keep garbage receptacles covered. If fuel is available, construct an incinerator for the destruction of kitchen waste. An undue number of flies in camp is a reflection on the company officers.

h. See to it that the camp is policed daily after breakfast and all refuse matter burned.



LANDING-FORCE MANUAL

UNITED STATES NAVY

1938

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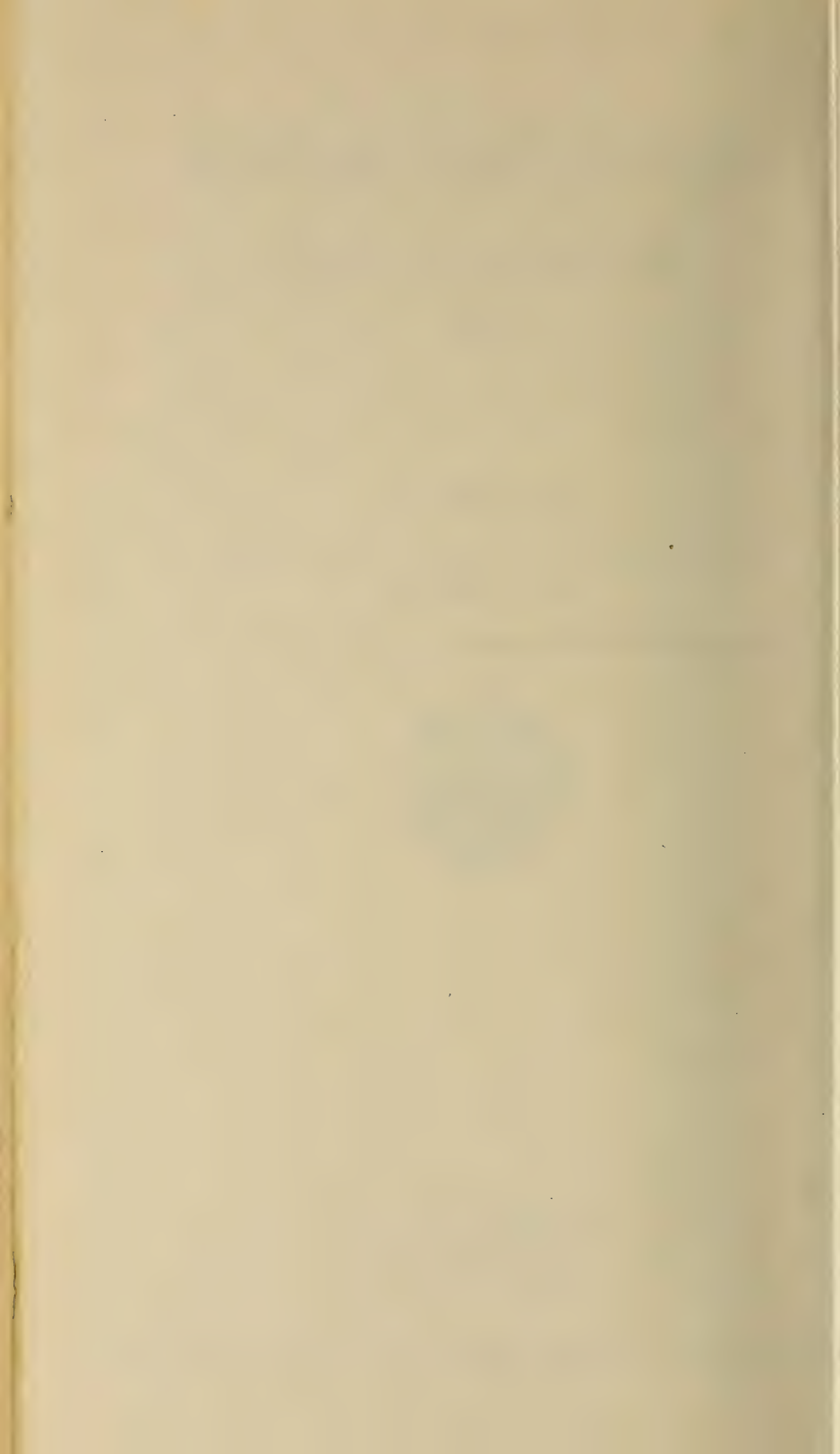
CHAPTER 14

FIELD SANITATION, PERSONAL HYGIENE AND FIRST AID

(Reprinted 1941 with all changes up to and including No. 5)



UNITED STATES
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FOREWORD

The Landing-Force Manual, U. S. Navy, 1938, is published in nineteen chapters as follows:

- CHAPTER 1. INTRODUCTION.
- CHAPTER 2. INDIVIDUAL INSTRUCTION WITHOUT ARMS AND WITH ARMS (RIFLE, AUTOMATIC RIFLE, SUBMACHINE GUN, PISTOL, AND BAYONET).
- CHAPTER 3. DRILL, THE SQUAD, PLATOON, AND COMPANY.
- CHAPTER 4. FORMATIONS OF THE BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 5. CART DRILL.
- CHAPTER 6. DRILL, MACHINE GUN, CALIBER .30.
- CHAPTER 7. DRILL, THE SPECIAL-WEAPONS PLATOON (37-MM GUN AND 81-MM MORTAR).
- CHAPTER 8. DRILL, ARTILLERY.
- CHAPTER 9. THE INFANTRY PACK, AND DISPLAY OF EQUIPMENT AND CLOTHING.
- CHAPTER 10. CEREMONIES; AND MANUAL OF THE COLOR, SWORD, AND GUIDON.
- CHAPTER 11. INTERIOR GUARD DUTY AND GUARD MOUNTING.
- CHAPTER 12. MARCHES, SECURITY ON THE MARCH, AND OUTPOSTS.
- CHAPTER 13. TENT DRILL AND SHELTER.
- CHAPTER 14. FIELD SANITATION, PERSONAL HYGIENE, AND FIRST AID.
- CHAPTER 15. EXTENDED-ORDER EXERCISES, COMBAT PRINCIPLES OF THE RIFLE SQUAD AND PLATOON, AND COMBAT SIGNALS.
- CHAPTER 16. TACTICS AND TECHNIQUE OF THE RIFLE COMPANY AND INFANTRY BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 17. THE DEFENSE AND ATTACK OF CITIES, RIOT DUTY, AND NATIONAL DISASTERS.
- CHAPTER 18. PHYSICAL DRILL.
- CHAPTER 19. SMALL ARMS MARKSMANSHIP.

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UNITED STATES NAVY

CHAPTER 14

FIELD SANITATION, PERSONAL HYGIENE, AND FIRST AID

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(D) LIFE SAVING METHODS AND RESUSCITATION.		

SECTION I

FIELD SANITATION

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14-1. *WASHING MESS GEAR IN THE FIELD.*—*a.* After meals all mess gear should be sterilized in boiling water. In a semi-permanent camp, mess gear may be placed in wire racks and washed by immersion in boiling water for five minutes.

b. On the march and under conditions where the mess kits are in use, the following method is employed: Immediately after eating, men form in column and file past a garbage can or pit where refuse, liquid and solid food is disposed of. After disposal each article of the mess kit is rinsed successively in three cans of water placed over fires in a trench. The first can contains boiling soapy water; the second and third, boiling clear water. A few moments' immersion in each can is usually sufficient to cleanse the utensils. After immersion in the third can the mess gear dries almost immediately by its own heat; no wiping is necessary. Care should be taken that the water in each can is kept boiling.

14-2. *WATER SUPPLY.*—*a. Contamination.*—All water in the field should be regarded as contaminated. It may be contaminated during distribution and storage, as well as at its source.

b. If the supply for drinking and cooking, watering animals, bathing, and washing clothes is obtained from a stream, the watering places should be located in the order stated, beginning upstream.

FIELD SANITATION

c. The water furnished by small streams may be increased by building dams. Springs may be dug out and lined with stones, boxes, or barrels. Surface drainage is kept out by a curb of clay.

d. Water not known to be pure is chlorinated or boiled, then cooled and aerated.

e. Heat is one of the safest measures to sterilize water but it requires time and fuel. Water should be boiled for 20 minutes and allowed to cool.

f. Receptacles should be cleaned daily with boiling water or rinsed with a solution of potassium permanganate (one-third of a teaspoonful of potassium permanganate to 1 gallon of water). A solution of chlorinated lime is also very good for this purpose in the proportion of 1 to 1,000. These solutions are harmless and more certain in their action than the use of boiling water alone. Canteens when not in use should be emptied, dried, and cleansed with one of the above solutions.

g. The Lyster bag, furnished by the Quartermaster's Department, U. S. Marine Corps, provides an excellent means of chlorinating, cooling, aerating, and distributing water. It has a capacity of 36 gallons which is sufficient to fill 100 canteens. The water is distributed from faucets attached to the lower part of the bag. The bag may be supported by an improvised tripod or it may be suspended from the bough of a tree, etc. Calcium hypochlorite is the chemical used for water chlorination in the Lyster bag, and is supplied in small glass tubes, each of 15 grains (1 gram), by the Quartermaster's Department, United States Marine Corps.

(1) Break a tube and place the contents in a canteen cup containing enough water to form a paste.

(2) After making the paste dissolve it by stirring well while adding water until the cup is nearly full.

(3) Empty the solution into the bag full of water.

(4) Wait 30 minutes before using.

h. As an emergency substitute for calcium hypochlorite or chlorinated lime, use 10 cc ($2\frac{1}{2}$ teaspoonfuls) of the official tincture of iodine; then wait 30 minutes before using the water.

i. Two drops of tincture of iodine added to a canteen of water will sterilize the contents.

j. Potassium permanganate, $\frac{1}{2}$ grain to the gallon, may also be used.

ULTIMATE DISPOSAL OF WASTE

14-3. *ULTIMATE DISPOSAL OF WASTE*.—The ultimate disposal of waste products in the field is limited to—

(1) Burial; usually employed in temporary and semipermanent camps.

(2) Burning (incineration); usually employed in more permanent camps.

14-4. *CAMP REFUSE*.—The refuse which collects in company streets and environs should be collected and disposed of. Metal garbage cans, if obtainable, should be placed at intervals in the camp for waste paper, burnt matches, cigarette stumps, fruit peelings, etc. Wooden or cardboard boxes may be so employed.

14-5. *EXCRETA*.—*a*. When a column halts a sanitary detail should prepare temporary latrines. A few narrow trenches will suffice.

b. Temporary camps.—(1) To prevent soiling the camp site, the digging of straddle-trenches should begin immediately. Men should be cautioned to contain themselves until these are ready for use. These trenches are usually called “one two three straddle-trenches” indicating that they are 1 foot wide, 2 feet deep, and 3 feet long. These trenches are used for bivouacs and temporary camps. They should not be confused with the deep-pit latrines required in more permanent camps.

(2) Straddle-trenches, one for each 10 men, should be constructed on a line and be parallel to each other.

(3) The dirt that is removed should be piled at one end of the trench, leaving a firm foothold on each side. Put a can or shovel on each pile of dirt so that each man can cover his excrement and toilet paper as soon as he is through. If excrement is left exposed, flies crawl on it, and then flock around the galley, and contaminate the food, spreading disease throughout the command.

(4) An ample supply of toilet paper should be provided, and be protected by cans or canvas during the rainy season.

(5) Straddle-trenches are located on the leeward side of camp, well away from the galley, and 50 to 100 yards away from the bivouac area. They should be on fairly high ground, to avoid the danger of flooding during the rainy season, and so located that they will not drain into a stream or well and contaminate the water. In thickly inhabited localities they should be screened from vision with brush or fabric.

FIELD SANITATION

(6) Before breaking camp, latrines should be filled, mounded over, and marked. Thoughtful men will carry a supply of toilet paper for use along the trail.

(7) The importance of the proper use of latrines cannot be over-emphasized. There are few desirable camp sites, and a careless patrol may so contaminate one that it will be unfit for further occupation for months. "The line of march of today is the line of communication tomorrow."

c. Permanent camps.—(1) A fly-tight box of approved construction should be used over deep-pit latrines. It is essential to maintain fly-tight integrity, as otherwise the latrine will soon become a menace to the command. All cracks should be covered, preferably by strips of burlap or wire mesh. The bottom of the box should fit tightly against the ground.

(2) For details of constructing and flyproofing latrine boxes see figure 1.

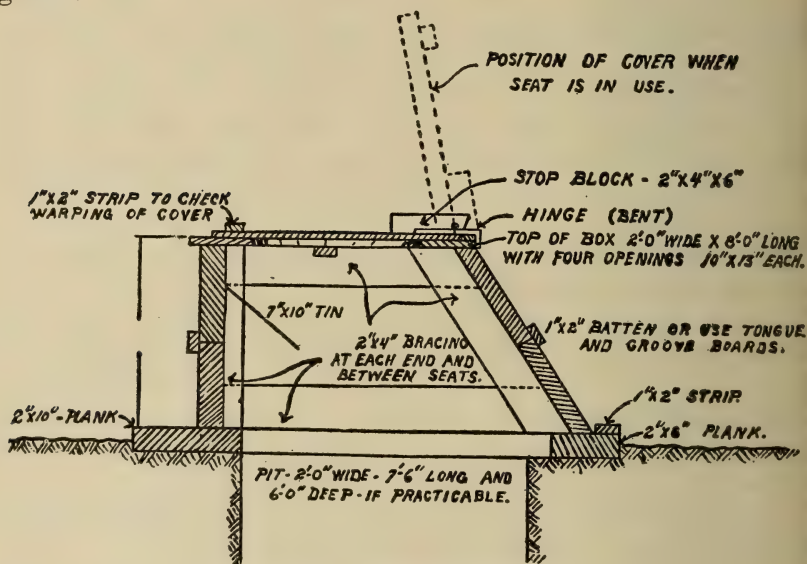


FIGURE 1.—Standard latrine box.

(3) In digging the pit, make the length eight feet or multiples of eight feet, to correspond to the length of the box. Seats should be provided on the basis of one for each twelve men. One standard box is assumed to provide accommodations for fifty men.

(4) The width of the pit is always two feet. The depth depends on the time the latrine is to be used. A pit four feet deep should last two

URINAL SOAKAGE PITS

weeks. For longer periods, add one foot depth for each additional week.

(5) The latrine should be screened and a trench six inches deep should be dug around it to drain off water. The latrine should be covered, usually by a tent fly. An orderly should be assigned to keep the latrine in proper police. The pit should be sprayed daily. A spray pump filled with creosol or crude oil is used for spraying the pit and inside of the box. Seats should be scrubbed daily with soap and water, and twice weekly with a solution of six ounces of compound creosol solution in a pail of water. After using creosol, the seats must be thoroughly flushed with water and men prevented from using them until this has been done, as otherwise they may be severely burned. The creosol should be drawn as required from the police tent, and never be permitted to remain in the latrine area.

(6) Flyproofing the pit is necessary, except when the pit is dug through rock or tight clay. The fly deposits eggs on the excreta and the larvae work up through the ground around the pit, their escape from its mouth being prevented by the box. In fly-proofing the pit, an area four feet wide and six inches deep is dug all around the pit. This excavation is covered with oil-soaked burlap, and the earth replaced and packed down. After a latrine has been in use for several weeks, the ground under the burlap will be found honeycombed and will disclose the remains of numerous fly larvae. If the pit becomes infested with flies, open a seat cover and place a fly trap over the hole.

(7) The inside of deep trench latrines should be darkened with tar paper or other black material. Flies avoid dark places.

(8) When deep latrines are filled with excreta to within 3 feet of the surface they should be filled in and abandoned. The location should be marked with an "L" to warn against future use of the site.

(9) The latrine should be lighted at night.

(10) A trough urinal, lined with tar paper or tin, or constructed of galvanized iron, is arranged to drain into each pit.

(11) Facilities for washing the hands should, if possible, be provided at each latrine.

14-6. *URINAL SOAKAGE PITS*.—The urinal soakage pit is constructed as follows: Dig a pit 4 feet square by 4 feet deep; fill to within 6 inches of the surface with large stones or empty perforated tin cans, and insert at each corner a piece of iron pipe $4\frac{1}{3}$ feet long. Spread oil-soaked burlap over the stones and cover it with 6 inches of earth. Tin funnels are fitted into the ends of the iron pipes.

FIELD SANITATION

(See fig. 2.) In the absence of iron piping or funnels improvise them from empty kerosene cans, or use tar paper. In porous soil one soakage pit will dispose of the urine of from 100 to 200 men indefinitely.

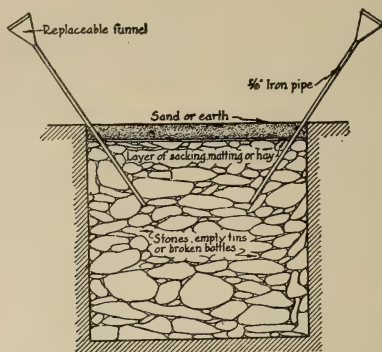


FIGURE 2.—Cross-section of urine soakage pit.

14-7. *SOAKAGE PITS*.—The dimensions and construction of this pit are the same as for the urinal soakage pit, except that it is fitted with “traps” to remove the grease by running the water through a box or gravel. (See fig. 3.)

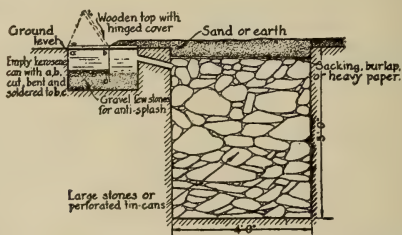


FIGURE 3.—Cross-section of soakage pit for waste water, with grease and soap trap.

14-8. *NIGHT URINALS*.—Urinal cans should be placed in company streets at night, lighted by a lantern to mark their location. If placed at some distance from camp, men are tempted at night to urinate on the ground in the vicinity of the tents. Urinal cans should be cleaned and sunned daily.

14-9. *INCINERATION*.—*a. Rock-pile incinerator* (see fig. 4).—Dig a circular pit 15 feet in diameter and 3 feet deep; line it with boulders or mashed tin cans. Raise a pyramid of stones in the center about 5 feet high, which will serve to create a draft. A fire is built around the pyramid; after the stones are hot the garbage is thrown on the stones where the solid matter is consumed and the

INSECT CONTROL, GENERAL

liquid is evaporated. One cord of wood will consume about 4,000 pounds of ordinary camp refuse after the stones have been heated.



FIGURE 4.—Garbage incinerator or crematory.

b. Cross-trench incinerator.—The cross-trench incinerator consists of 2 trenches intersecting at right angles to form a cross. Each trench is 8 feet long, 1 foot wide, and 1 foot deep in the center, sloping from the center to the surface at both ends. At the intersection of the trenches place scrap iron to act as a grate and serve as a support for a galvanized iron can with the bottom removed. A wooden barrel covered with a layer of wet clay may be used in place of the iron can. The trenches are lined with large stones, which become heated when the incinerator is in operation and thus assist in evaporation of liquid waste. The trench facing the wind is left open for ventilation; the other three openings beneath the barrel are closed with a few shovels of earth.

14-10. *INSECT CONTROL, GENERAL.*—The human race is constantly at war with hordes of insects which frequently carry myriads of disease germs and eggs of parasites. This is especially true in the field, and for a landing force successfully to avoid illness from this source detailed measures for insect control are necessary.

FIELD SANITATION

Common insects concerned in disease transmission

Common name	Genus	Common diseases transmitted	Breeding places	Life history	Range of flight
Flies.....	Musca (M. domestica).	Typhoid fever, cholera, dysentery, diarrhea, and other infections.	Manure, garbage, decaying organic matter.	Eggs hatch in about 36 hours to larvæ. Larvæ grow rapidly and in 7 to 10 days become pupæ (resting stage). In 2 to 4 days mature into adults.	½ to 1 mile.
Mosquitoes..	Anopheles..	Malarial fever.....	Rural stagnant pools, swamps, and marshes.	Eggs deposited in mass of 100; in 2 to 4 days hatch into larvæ, and in a week reach pupæ or wingless resting stage. In 2 or 3 days develop wings and become adult mosquitoes.	½ mile.
Mosquitoes..	Aedes (A. Aegypti).	Yellow fever and dengue.	Domestic; develop in water in any container near a house or in gutters, cisterns, spouts, etc.	Lays about 70 eggs. Larvæ hatch out in 2 days and develop into pupæ in 1 week. Then in 2 or 3 days become mature adults.	Maximum of 75 yards.
Lice.....	Pediculus (P. vestiment).	Typhus fever, relapsing fever.	Breed and spend their entire life on warm-blooded animals, including man.	Eggs cling to hair or clothing of host (man). They hatch out in 3 to 4 days and mature in 10 to 15 days.	Do not travel much; keep close to one host.

14-11. *FLIES*.—*a*. Measures undertaken to combat flies may be divided as follows:

(1) *Prevent access of flies to—*

(a) Food, mess gear, kitchens and mess halls.

(b) Living quarters.

(c) Excreta.

(2) *Destruction of the adult fly.*

(3) *Prevention of breeding.*—(a) Filth attracts flies. Cleanliness may be considered as the chief deterrent. An undue number of flies is indicative that food or filth is present somewhere in the vicinity. A marked reduction in the number of flies around a kitchen may follow the simple measure of cleaning the outside of garbage cans.

(b) In a permanent camp the kitchens, mess halls, and garbage cans should be screened. In a semipermanent camp screening may be impractical; consequently we must depend upon cleanliness and insect-proof containers. Leaking screens (especially cracks around the screen door) frequently convert the building into a huge flytrap—flies are able to enter the building through leaking screens but are unable to get out. Screen doors should be made to open outward and should be in direct sunlight, when practicable.

MOSQUITOES

(4) *Repellents*.—The use of essential oils is unsatisfactory. Crude oil may be used around latrines to repel flies, and coating the interior of latrines with black material serves the same purpose.

b. Destruction of adult flies.—(1) Sweetened solutions of formaldehyde, 1 percent (corresponding to 2.5 percent of a 40 percent solution of formalin) or sodium salicylate, 1 percent, will kill flies. As flies usually drink in the early morning, it is well to prepare the above solutions the night before.

(2) Fly paper is very efficient and may be prepared as follows: Heat powdered resin 8 parts and castor oil 5 parts (by weight); stir well while heating; the mixture should not be brought to a boil. In hot weather the proportion of resin should be increased. Sugar or honey may be added, but is not essential. The fluid is spread while hot over glazed paper. The mixture may be painted upon iron hoops or wire strands. Wires so painted should be cleaned and recoated every two to three days.

c. Prevention of fly breeding.—Flies breed in horse manure, excreta, decaying organic matter, etc. One neglected stable may supply flies for an entire district. Garbage should be kept in covered containers to prevent fly breeding, and should be removed frequently, especially in warm weather. Grease traps must be kept covered and the surroundings kept clean and dry or larvae will develop. If horses are present, the picket line should receive attention. Daily removal of manure and cleaning and burning over the area are only partially effective in the prevention of fly breeding. The heat of burning over the surface penetrates the ground only 1 or 2 inches and fails to kill the developmental forms which may be several feet beneath the surface. Digging up the picket line and saturating the soil with crude oil, then tamping it down, gives fairly satisfactory results.

14-12. *MOSQUITOES*.—The measures undertaken to combat transmission of disease by the mosquito are as follows:

a. Medicinal prophylaxis.—The routine administration of quinine as a prophylactic against malaria will retard infection and conserve man power. The treatment of native malarial carriers is an important factor in the protection of the landing force.

b. Personal protection.—Kerosene is extensively employed in some tropical countries as a repellant to mosquitoes. Essential oils, such as citronella have little practical value in the field, as their effect will not last through one night. Living quarters in permanent or semi-permanent camps may be screened by using wire having 18 meshes to the inch. The female malarial mosquito feeds at night; conse-

FIELD SANITATION

quently sleeping nets are the best means of preventing the transmission of this disease in the field. Mosquito nets may be obtained from the Quartermaster's Department of the Marine Corps and should be supplied to every individual of an expeditionary force. Sentinels on duty after sunset in a malarial country should wear head nets and gloves.

c. Mosquito destruction.—Adult mosquitoes should be destroyed by spraying the interior of quarters with the standard Navy insecticide or by using mosquito traps and swatters. Destruction of wintering adults is effective.

d. Destruction of mosquito breeding places.—Mosquito breeding places may be controlled by oiling. Crude petroleum is usually selected. When mosquito larvae, commonly called wiggletails, come to the surface for air the oil clogs their breathing apparatus and kills them by asphyxiation. Use about one-half ounce of oil for every square foot of water surface when the areas are small and the wind does not blow the oil aside. The application of this amount of oil once a week is sufficient to destroy each crop of larvae. It requires 10 or more days for the cycle from the egg to the adult mosquito. The "Panama dripper" consists of an oil can with a faucet near the bottom which allows the oil to fall on the water, drop by drop (usually at the rate of about 30 drops per minute), and permits continuous oiling of a running stream. Drainage and filling are also efficient measures. Where the mosquito breeding area is below sea level and cannot be drained it may be flooded with salt water to prevent breeding. In other areas deep ditches may so reduce the water surface that it may be easily controlled by oiling. Small swamps, marshes, etc., may be filled in with dirt, ashes, etc. Comparatively small amounts of stagnant water in pools, barrels, and tin cans, or vegetation that collects water, furnish sufficient breeding places to infest a camp with mosquitoes. A camp located about a mile from a malarial mosquito breeding area is considered fairly safe. In the selection of a camp site endeavor to avoid the proximity of native habitations, as these are apt to harbor mosquitoes and malaria carriers.

14-13. *LICE*.—*a.* Various methods are employed for delousing. N. C. I. powder is considered very efficient for destroying lice and consists of: Naphthalene, 96 parts; creosote, 2 parts; iodoform, 2 parts. This powder is dusted inside of wearing apparel, care being taken to avoid the forks of trousers, as the preparation, if used too

BEDBUGS

freely, is an irritant. After the use of this powder the man should wrap himself up in a blanket to retain the fumes which are generated.

b. "Vermijellie" is less irritating than the above mixture and is composed of the following ingredients: Crude mineral oil, 9 parts; soft soap, 5 parts; water, 1 part. This preparation will kill adult lice but has no effect on the eggs.

c. Clothing may be deloused by immersion in kerosene or gasoline.

d. Ironing clothes will kill both the adults and the eggs. Steam will accomplish the same purpose. The "Serbian barrel" and the "sack disinfector" are two simple devices for steam sterilization in the field. The Serbian barrel disinfector (see fig. 5) consists of a portable barrel with a perforated bottom and a tightly fitting cover, weighted down with stones. The barrel is placed over a tank of boiling water; the steam flows under pressure into the barrel. The water must be kept boiling at all times while this barrel is in use.

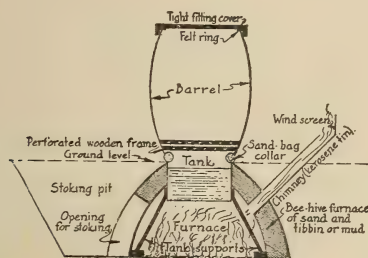


FIGURE 5.—Serbian barrel

14-14. *BEDBUGS*.—Preventative and destructive measures for avoiding bedbugs are as follows:

a. Frequent airing of bedding in the sun.

b. Bedbugs and most other pests can be killed by a temperature of 140 degrees Fahrenheit. This temperature also kills eggs and larvae. If a room is available where beds, bedding, and clothes can be continuously subjected to this temperature for 24 hours, the vermin will be eradicated. A warm day, and the use of all available heat (including additional oil stoves) is recommended.

c. Standard Navy insecticide, kerosene, gasoline, turpentine, mercuric chloride solution, and other insecticides poured into crevices exterminate this pest.

d. The blow torch is effective when applied to cracks of metal beds.

e. On ships and stations where large sterilizers are available, turned in mattresses and pillows should be run through the sterilizers

FIELD SANITATION

before being placed in the storeroom. Where there is any indication of vermin in the quarters, all mattresses and pillows should be sterilized periodically.

14-15. *COCKROACHES*.—*a*. Sodium fluoride blown into corners and crevices is a standard cockroach poison. The roaches walk through this powder, some of it adheres to their legs, and they are poisoned when they clean themselves. Sodium fluoride is a **poison**, therefore caution should be taken in its use so as not to contaminate food.

b. Standard Navy insecticide used as a spray or pyrethrum powders are excellent insecticides.

SECTION II

PERSONAL HYGIENE

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14-16. *INTRODUCTION*.—Hygiene is the science of the preservation of health. Personal hygiene deals with the efforts each individual must put forth to keep in good physical condition and with the precautions he must take to protect himself from disease. Before being allowed to enlist in the Navy, the applicant is given a thorough physical examination to determine the absence of disease, and it then becomes his duty to keep himself in the best physical condition. In doing so, attention to personal hygiene is especially important.

14-17. *IMPORTANCE OF EARLY MEDICAL TREATMENT*.—If at any time a man does not feel perfectly well or believes that he has contracted a disease, he should report at once to the sick bay. Self treatment should never be attempted since by so doing the individual may not only harm himself but may also become a source of danger to his comrades.

14-18. *CAUSES OF DISEASE*.—Most acute diseases and many chronic ones are caused by micro-organisms or viruses commonly called germs. The usual ways in which disease-producing germs gain entrance to the body are as follows:

- (1) By eating food or by drinking water or other liquids which contain the germs.
- (2) By breathing in certain germs which float in the air.
- (3) Through the skin; the germs having been injected into the body by the bites of mosquitoes, flies, lice, ticks, or fleas, or introduced through cuts, scratches, or abrasions.
- (4) By contact with diseased persons. .

14-19. *RULES FOR AVOIDING DISEASE*.—*a. General*.—Much sickness results from improper care of the body. Sometimes this is due to ignorance; more frequently to simple carelessness; both are avoidable. One of the primary duties of every man is to keep

PERSONAL HYGIENE

himself physically fit for duty. The development of good habits of personal hygiene are essential for good health. This applies particularly to food, clothing, bathing, exercise, rest, and bowel movements.

b. Food.—Do not eat to excess. Food should be well chewed; not eaten in haste. It should be of wholesome quality and of good variety including fruits and vegetables. Do not eat a heavy meal immediately before a long march, swimming, other heavy exertions, or prolonged exposure to the sun in hot weather.

c. Drinking water.—Drink plenty of water at intervals during the day but do not drink a large amount at one time, especially when overheated after exertion. Do not drink water which has not been certified by a medical officer unless it has been boiled or purified in a water sterilizing bag (Lyster bag). Water from this bag should be taken from the faucet into a cup or canteen. Dipping a cup into the bag or putting the lips to the faucet is prohibited. Salt should be added when perspiration is profuse and prolonged to prevent heat exhaustion, cramps and diarrhea.

d. Mess gear.—Be sure that the mess kit, knife, fork, and spoon are thoroughly washed in soapy water and rinsed in boiling water after they are used.

e. Never use a cup which is used by others. Do not exchange pipes, cigars, musical instruments played with the mouth, gas masks, handkerchiefs, towels, or shaving outfits.

f. Clothing.—Wear clothing of proper weight for the climate and nature of work. Clothing should not fit tightly. Change shirts and underwear at least twice weekly; wash them and dry in the sun if possible. Change wet clothing, particularly shoes and socks, as soon as opportunity permits. If water is not available, clothing should be crumpled up, shaken well, and exposed to the sun. Do not sit or lie directly on the damp ground. Avoid drafts when perspiring or while the clothing is damp. The head dress must provide protection for the back of the neck from the hot sun.

g. Bathing.—Bathe the entire body at least twice each week. The hands should always be washed before eating and after using the toilet. Where bathing facilities are not available, scrub the body frequently with a wet cloth, paying particular attention to arm pits, crotch, and feet.

h. Exercise and rest.—Exercise and rest are equally essential. The body demands physical exercise to keep the muscles in good tone.

RULES FOR AVOIDING DISEASE

Exertion to the point of feeling a mild degree of fatigue is wholesome; beyond this point it causes exhaustion. Rest is essential for restoring body and nervous energy. Sleep should be regular, undisturbed, and result in a feeling of relief from fatigue. If sleep habitually fails to relieve feeling of physical or mental fatigue the medical officer should be consulted.

i. Feet.—Care of the feet, being a primary factor in marching ability, is considered in chapter 12, to which reference should be made.

j. Care of the teeth.—Brush the teeth at least twice each day, one of these brushings to occur before going to bed. In cleaning the teeth, brush the inside and outside surfaces away from the gums and toward the cutting surfaces. Promptly remove particles of food from between the teeth, preferably by use of dental floss. Have the teeth inspected twice a year by the dentist, or immediately for bleeding gums and aches.

k. Finger nails.—Keep the finger nails clean and trimmed short.

l. Hair.—Keep the hair cut short.

m. Bowel elimination.—Acquire the habit of having the bowels move regularly once each day and as nearly the same time as possible. Habitual use of any form of cathartic is bad.

n. Camp sanitation.—Do not soil the ground with stools or urine. Always use the latrine or the night urine can. Never throw pieces of food or refuse around the camp or in the trench. Such debris draws flies and flies frequently carry disease.

o. Preparation of beds.—Prepare the beds before dark. In temporary camps or bivouac, raise the beds if suitable material such as straw, leaves, or boughs can be obtained. Raincoats should be used as a ground sheet. Use a mosquito net in regions where mosquitos are prevalent. See that it is well tucked in and is free from holes. Bedding should be aired as often as practicable. Sunlight kills disease germs.

p. Medical attention.—Report without delay to the medical officer in case of persistent constipation, indigestion, or sudden onset of pain in the stomach with nausea or vomiting; in the latter case no physic should be taken, even fluids should be avoided.

q. Contact with diseased persons.—Avoid all contact with diseased persons unless duty requires it.

r. Avoid venereal diseases.—These diseases are almost always contracted by sexual intercourse with an infected woman. If sexual intercourse is had, report as soon as possible (at least within 2 hours

after exposure) for "prophylaxis." This prophylactic treatment must be carried out thoroughly and the directions followed exactly if its full protective value is to be obtained.

s. The mental attitude has a close relationship to health. Worrying and anxiety over trifles should be avoided. To accomplish this the mind should be kept occupied and interest maintained in work and recreation.

14-20. *VERMIN*.—*a*. Vermin such as body lice, which live in the clothing rather than on the body, pubic lice (crabs), and head lice, are the result of lack of personal cleanliness. They produce itching, discomfort, and disturbed rest in the persons whom they infest and certain varieties, particularly the body louse, transmit serious diseases. Men having a persistent itching on the body or head should consult a medical officer at once.

b. It is comparatively simple by attention to personal cleanliness to destroy full grown lice, but the eggs are killed with difficulty for they are deposited in the seams of both underclothing and outer clothing. Body lice may be destroyed by thoroughly brushing the clothing and applying heat, as with a hot iron, devoting special attention to the seams. Gasoline will kill the adult lice but not the eggs. If not eliminated by these means, a medical officer should be consulted.

c. Head lice may be eliminated by clipping the hair short and applying a solution of vinegar followed by an application of kerosene to the scalp. The scalp should be thoroughly shampooed several hours later and search made for eggs that may have escaped destruction.

d. Crabs or public lice may be destroyed by shaving and bathing thoroughly the parts involved, followed by the application of a suitable disinfectant supplied by the Medical Department.

SECTION III

FIRST AID

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LOCATIONS, AND FRACTURES

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FIRST AID

(A) WOUNDS, HEMORRHAGE, SHOCK, SPRAINS, DISLOCATIONS, AND FRACTURES

14-21. *GENERAL*.—*a. Definition*.—First aid is prompt emergency treatment given an injured person while awaiting regular medical attendance.

b. Knowledge of first aid.—It is the duty of everyone to familiarize himself with the details of first aid, so that he may be able to give efficient help to the wounded and, in case of his own injury, to direct or assist those who come to his help. Efficiency in first aid can be attained only by thorough instruction and drill. To save life, someone on the spot must be able to render assistance to the injured.

s. What to do.—(1) *If you do not know exactly what to do*.—Leave the injured man alone, send for medical assistance; however, protect him from exposure, further injuries, and the inexperienced efforts of others.

(2) *If you are familiar with first-aid procedure*.—Send for medical assistance; meanwhile administer first aid. Keep cool, act quickly, be gentle, and do not attempt too much.

d. Prevention of injury.—“An ounce of prevention is worth a pound of cure”; hence, be so well drilled in the performance of your duty and so familiar with the hazards involved, that injury to yourself and others may be avoided. The average injury is due either to carelessness or ignorance; both are avoidable.

14-22. *TREATMENT OF WOUNDS*.—*a. General*.—A wound is any injury in which the skin is pierced or broken. Wounds are divided into incised, contused, lacerated, punctured, gunshot (including shell wounds), and stab wounds. These may vary from a very small punctured wound, to one caused by a bursting shell in which large amounts of soft tissue are destroyed, and severe hemorrhage is present. The immediate dangers to life from severe wounds are hemorrhage and shock. Another great danger from all open wounds is infection which delays healing and endangers life. First-aid treatment is, therefore, directed toward the treatment of hemorrhage and shock, if present, and the prevention of infection. The care and promptness of general first-aid treatment and the application of the first-aid dressing are of the utmost importance in influencing the final outcome of the case. It is better to leave a wound undressed and attempt no first-aid treatment than to do it carelessly or ignorantly.

HEMORRHAGE

b. Application of first-aid treatment.—Application of first-aid treatment to the wounded includes such of the following steps as are indicated:

(1) Expose the wound for examination and treatment by unbuttoning, unlacing, ripping, or cutting the clothing, shoes, leggings, or boots, being careful to avoid touching the wound with the fingers, clothing, or other objects.

(2) Control bleeding. (See par. 14-24.)

(3) Prevent infection by the application of a sterile dressing preferably that from a first-aid packet. (See par. 14-25.)

(4) Take every precaution to prevent shock but if it occurs, treat it. (See par. 14-26.)

14-23. *HEMORRHAGE.*—There are three varieties of hemorrhage (bleeding) as follows:

a. Arterial.—The blood spurts from the artery with each pulsation of the heart and is bright red in color. This variety is the most dangerous because of the great amount of blood which may escape in a short time.

b. Venous.—The blood flows from the vein in a steady stream and is dark red in color.

c. Capillary.—The blood oozes through the wound from very small blood vessels. It is the least dangerous variety.

14-24. *CONTROL OF HEMORRHAGE.*—Hemorrhage is controlled by natural or artificial means as follows:

a. Natural means.—A blood clot forms in the wound, preventing the further escape of blood. Capillary hemorrhage usually stops this way.

b. Artificial means.—Venous and arterial, depending on the severity, usually require one or more artificial means as follows:

(1) *Elevation.*—The use of this simple means usually stops capillary hemorrhage of the limbs and may suffice for the control of slight venous and arterial hemorrhage of the arms, hands, legs, and feet.

(2) *Pressure of the fingers.*—For quick control of arterial hemorrhage, press upon the blood vessel between the wound and the heart. Examples of finger pressure for control of arterial hemorrhage are as follows:

(a) *Scalp.*—Apply pressure with the tips of the fingers in front of the ear just above where the lower jaw can be felt working in its socket. A branch of the temporal artery crosses the temple on a line

FIRST AID

between the upper border of the ear and the upper border of the eye-brow. (See figs. 6, 7, and 10 A.)

(b) *Neck and head.*—Press the thumb and fingers deeply into the neck in front of the strongly marked muscle which reaches from be-

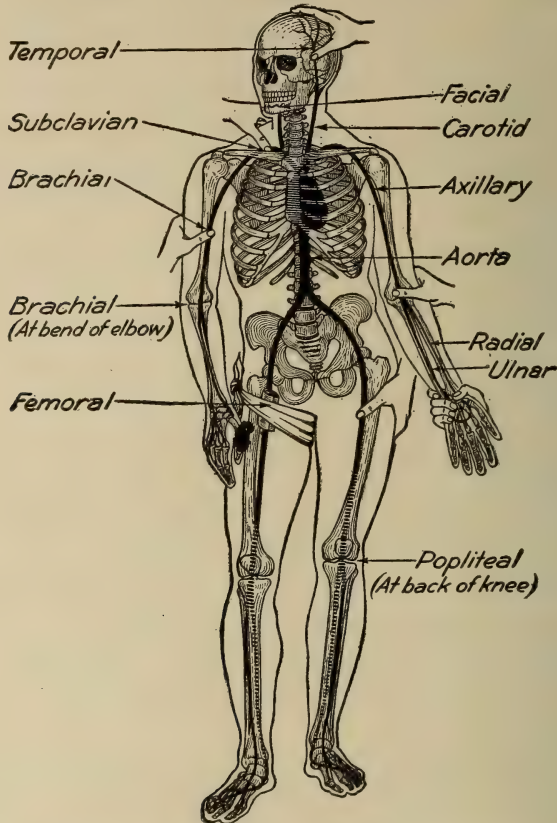


FIGURE 6.—Course of arteries and pressure points.

hind the ear to the upper part of the breast bone. (See figs. 6, 7, and 10 B.)

(c) *Shoulder and armpit.*—Press the thumb deeply into the hollow behind the middle of the collar bone. This compresses the large subclavian artery. (See figs. 6 and 7.)

CONTROL OF HEMORRHAGE

(d) *Arm or hand.*—Press outward against the bone just behind the inner border of the large muscle (biceps) of the arm. This compresses the brachial artery. (See figs. 6, 8, and 10 C.)



FIGURE 7.—Course of arteries and pressure points: Head and neck.

(e) *Thigh, leg, or foot.*—Press strongly with the thumbs at the upper part of the inside of the thigh where the large artery passes

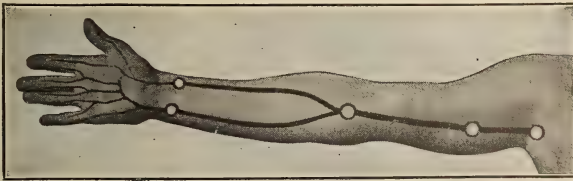


FIGURE 8.—Course of arteries and pressure points: Upper extremity.

over the bone. This compresses the femoral artery. (See figs. 6, 9, and 10 D.)

FIRST AID

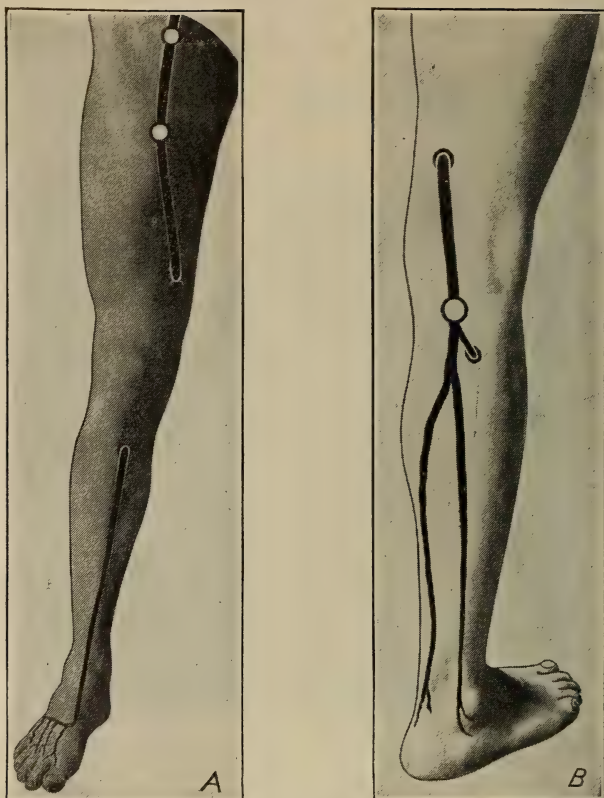


FIGURE 9.—Course of arteries and pressure points: Lower extremity; A, front view; B, back view.

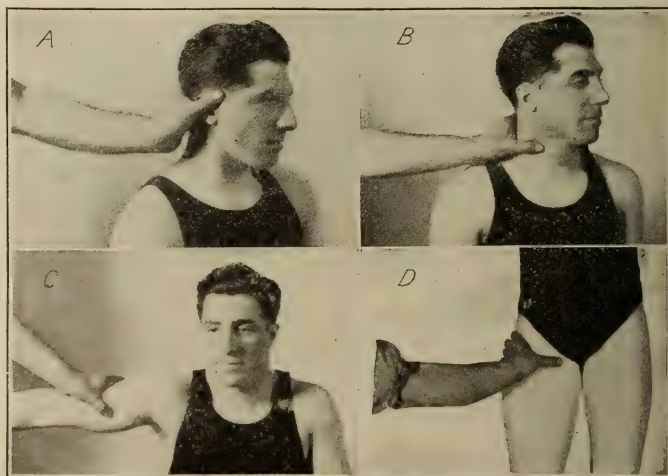


FIGURE 10.—Pressure points: A, temporal pressure point; B, carotid pressure point; C, brachial pressure point; D, femoral pressure point.

CONTROL OF HEMORRHAGE

(3) *Tourniquet* (see fig. 11).—(a) If bleeding from a limb continues after employment of means described above or if pressure will be required for a prolonged interval, a tourniquet should be used. The standard Navy tourniquet is an elastic rubber tube used to compress a pad such as a roll of bandage on the artery. If the issue tourniquet is not available, a substitute can be readily improvised. This consists of a pad which is placed on the line of the artery between the wound and the heart (see figs. 6 to 10, inclusive), and a strap that goes over the pad and around the limb so that when tightened it will press the pad down upon the artery and interrupt the flow of blood. A pad may be made of a small stone or other hard object wrapped in some material to make it less rough. The strap may consist of a bandage, belt, handkerchief, cravat, or similar article.

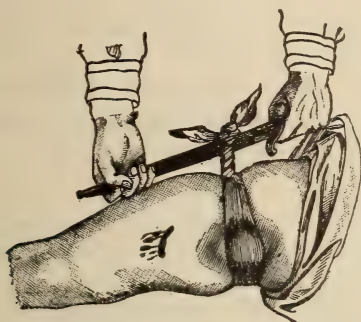


FIGURE 11.—Adjusting an improvised tourniquet.

(b) For the arm the tourniquet is applied over the point described for compression by the fingers. For the thigh and leg it is applied 4 or 5 inches below the groin. After tying the band loosely around the limb the required degree of pressure is made by passing a stick or bayonet under the band but diametrically opposite the pad and twisting it so that the pad is pressed down firmly upon the blood vessel. The stick is turned slowly and stopped at once when the blood ceases to flow. The stick is then fixed in place with another bandage. Harm may be done if too much force is used or if the pressure is kept up too long.

(c) In the use of the tourniquet the following precautions should be observed:

1. Never cover the tourniquet with a bandage.
2. Attach some kind of tag to the man plainly marked "tourniquet," giving the date and hour when applied.

3. If the injured man is conscious, instruct him to tell every medical officer who sees him that he has on a tourniquet.

4. The tourniquet should be loosened every half hour or the limb may die. If bleeding does not recur, leave the tourniquet loose but in position. If bleeding recurs, leave it loose temporarily if hemorrhage is not severe, massage the limb to restore some circulation, then reapply pressure.

(4) *Pressure on bleeding point.*—This method should be employed as an emergency measure if the above method fails or the injury is so located as not to permit control by pressure on an artery. A sterile dressing pad should be pressed in the wound and held firmly in position.

c. General treatment.—(1) Check the hemorrhage by means described above.

(2) Place the person on back with the head low so that the brain will get as much blood as possible.

(3) Prevent any violent movements which might increase the bleeding. When the bleeding has ceased, the injured person should be kept quiet, for any movement may dislodge the clot and start the hemorrhage again.

(4) Give plenty of fresh air.

(5) Keep patient warm by whatever means possible and surround with hot-water bottles, if obtainable.

(6) Stimulants should be used with care, as they increase the force of the heart and promote bleeding.

(7) In severe hemorrhage and shock there is usually great thirst. Hot drinks and water may be given freely unless there is an abdominal wound in which case no fluid by mouth should be permitted.

(8) If a patient is in collapse, forcing the blood from the extremities to the heart by bandaging from the fingers to the armpits and from the toes to the body may save life.

14-25. *WOUND DRESSING.*—*a. Cleansing the wound.*—If tincture of iodine and applicators are available apply solution generously to the wound and remove foreign matter with saturated applicator; however, when a missile enters or goes through the muscles or soft parts alone, generally nothing need be done except to protect the wounds with the contents of the first-aid packet. Make no attempt to clean such a wound.

b. Application of first-aid dressing.—(1) *One wound.*—Carefully remove the wrapper and without unfolding the compress or bandage,

SHOCK

hold it by grasping the outside folds of the bandage between the thumb and fingers. When ready to dress wound, open compress by pulling on the two rolls, being careful not to touch the inside of the compress with the fingers or anything else. Still holding one roll of the bandage in each hand, apply unpapered side of the compress to the wound, then wrap the bandage around the limb or part and tie the ends together or fasten with safety pins. The bandage may also be used for a sling, if the arm is wounded; or it may be used to bind both legs together, if one is injured.

(2) *Two wounds*.—If two wounds are opposite each other, apply to one wound an opened compress without unrolling the bandage, and to the other an opened compress, holding both dressings in place with the bandage of the latter. For two wounds not opposite each other, tie a compress over each.

(3) *Large wound*.—If the wound is too large to be covered by a compress, find and break the stitch holding the compress together, unfold it, and apply as directed in subpar. (1) above. If the contents of one packet are not large enough to cover a wound thoroughly, use several.

14-26. *SHOCK*.—*a. General*.—Shock is a sudden vital depression due to injury or emotion which makes an untoward impression upon the nervous system. It may be slight and transient, or prolonged and even fatal. When circumstances permit, the patient in shock should be supplied with warmth and stimulation before attempting transportation. If immediate removal is necessary, treatment for shock should be instituted at the earliest opportunity.

b. Symptoms.—The face is pale, pinched, and it has an anxious and frightened appearance; the patient feels weak, faint, and cold; the skin is cold and clammy to the touch; the pulse is weak and rapid; and breathing is sighing and irregular.

c. Treatment.—(1) Control the hemorrhage. (See par. 14-24.)

(2) Get medical assistance as soon as possible.

(3) Place the patient in a horizontal position with the head low.

(4) Loosen all tight clothing.

(5) Avoid unnecessary movement of the patient or injured part; it causes pain and increases the shock. If movement is necessary, administer such first-aid treatment as indicated and circumstances will permit before moving. Move no more than necessary before the arrival of medical assistance.

(6) Supply warmth; it saves lives in such cases. Depending on circumstances, this may be accomplished by filling canteens or bottles with hot water and placing under the armpits and between the legs (always outside the clothing to prevent burning or scalding); by wrapping in blankets or other warm clothing; by the use of warm stones or bricks in the same manner as hot water bottles; and by giving hot drinks such as hot water, coffee, tea, or chocolate, unless shot through the abdomen or unable to swallow.

14-27. *SPRAINS*.—*a. General*.—A sprain is the straining or tearing, by a sudden twist or wrench, of the ligaments and capsule which surround a joint, resulting in the rupture of blood vessels with the escape of blood and blood serum (the liquid part of the blood) both around and into the joint.

b. Symptoms.—Pain, heat, and swelling at the seat of the injury, followed by discoloration of the skin. The ankle, wrist, knee, and elbow are most commonly sprained.

c. Treatment.—(1) Provide absolute rest of the part.

(2) *If treatment is begun immediately*.—Pack the joint in crushed ice until it is well chilled, then apply a pressure bandage. Repeat at intervals for 24 to 48 hours.

(3) *If treatment is begun after swelling has developed*.—Elevate the joint if possible and apply heat and cold alternately at intervals for 24 to 48 hours, applying a pressure bandage between treatments.

(4) If necessary, a splint should be utilized to prevent the patient from using the joint. A sprained joint should be rested for a few days at least, often longer, depending upon the joint involved and the severity of the injury.

14-28. *DISLOCATIONS*.—*a. General*.—A dislocation is an injury to a joint, characterized by a displacement of the head of the bone (a slipping out of its socket).

b. Symptoms.—First there is deformity; the joint has an unusual appearance. This is best seen by comparing the injured side with the well side. There is limited movement, pain, some shock, and usually swelling.

c. Treatment.—Send for a medical officer at once. The risk of doing injury by injudicious efforts to replace a dislocated bone is greater than that of delaying until the services of a medical officer can be obtained. Place the injured member in the position most comfortable for the person and cover the part with cold wet cloths while waiting for the medical officer.

FRACTURES

14-29. *FRACTURES*.—*a. General*.—A fracture is a break in a bone. A *simple fracture* is one in which there is no wound extending from the broken bone through the skin. A *compound fracture* is one in which the wound extends from the broken bone through the skin and therefore is exposed to the dangers of infection from the outside. A *complicated fracture* is one where there is damage to adjoining large vessels, nerves, or muscles, which are contributing factors in causing shock. There are no injuries where the ultimate outcome is more influenced by the character of first-aid treatment than in fractures. Improper handling or immediate transportation may produce or aggravate shock and therefore deprive the patient of a chance of recovery. All fractures or suspected fracture cases should be handled gently. It is equally as important to know what not to do as to know what to do. In certain cases immediate movement or transportation is very detrimental and first-aid treatment should be administered and medical assistance brought to the patient rather than an attempt made to transport him to the medical officer. This is especially true of fractures of the head, chest, thigh, pelvis, or back, and where there is evidence of shock. In any event, depending on the severity and nature of the case, one or more of the general first-aid measures are usually indicated.

b. Symptoms.—These are pain, swelling, and deformity at the seat of injury. Unnatural mobility, loss of power, usually shortening of the limb, and “crepitus”, which is a sensation of grating to be felt when the broken ends of the bones move against each other.

c. Treatment.—(1) *General*.—(a) *Simple fracture*.—Straighten the limb, if necessary, by gently but firmly pulling upon the end of the extremity. If the nature and severity of the fracture and the condition of the patient are such as to permit his walking or being immediately transported to medical assistance, fix or retain the limb in position by issue splints or other available material.

(b) *Compound fracture*.—The wounds or hemorrhage should be treated before the application of the splints (see pars. 14-23, 14-24, and 14-25).

(c) *Splints*.—Many common materials will do for immediate and temporary use as splints, such as shingles, sticks, pieces of boards, bayonet scabbards, chicken wire, a rain spout cut and fitted to the limb, or bunches of twigs. It is important that the splints be well padded on the side to be applied next to the skin and that they be securely bound by bandaging or by tying above and below the point

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of fracture, but not over it (see fig. 12). Pillows are excellent pads. The opposite leg can be used as a splint for the injured one (see fig. 13).

(2) *Application of splints.*—(a) *Fracture of the forearm.*—With the forearm flexed to a right angle, thumb up, apply a splint to the inner surface, extending to the tips of the fingers, and another to the outer surface, extending to the wrist.

(b) *Fracture of the upper arm.*—Apply two splints, one in front, and the other behind, if the lower part of the bone is broken; apply to the inner and outer sides if the fracture is in the middle or upper part; support the forearm by a sling.

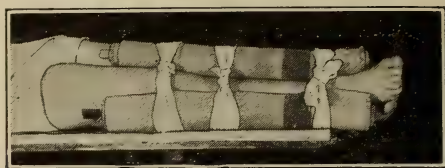


FIGURE 12.—Improved splint of sticks and blanket.



FIGURE 13.—Use of opposite leg and bayonet scabbard as splints.

(c) *Fracture of the collarbone.*—Flex forearm to a right angle in front of the body and use a sling.

(d) *Fracture of the leg or ankle.*—Apply two splints, one on the outside, the other on the inside of the limb, extending from just below the knee to beyond the foot.

(e) *Fracture of the thigh.*—Administer first-aid treatment to the injured person where he lies. Splinting should not be attempted by the inexperienced unless unusual circumstances make it necessary that the patient be moved some distance at once. Proper traction applied to the limb below the fracture is absolutely essential to provide effective first-aid treatment which will permit transportation without danger of producing further injury and shock. To do this requires

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a special splint applied by one experienced in its application. If the patient must be moved, carry gently as short a distance as possible, paying special attention to the support of the injured limb in the extended position.

(3) *Special fractures.*—(a) *Fracture of the skull.*—These injuries are very serious and should be treated by a medical officer as early as possible. Wound infection should be prevented by applying a first-aid dressing if necessary.

(b) *Fracture of the jaw.*—Tie a triangular bandage, or handkerchief under the chin and over the top of the head.

(c) *Fracture of the ribs.*—Apply wide band of rubber plaster or several narrow bands two-thirds around the chest while the arms are held over the head and the chest emptied of air; or snugly apply wide bandages.

(4) *Slings.*—Fractures of the upper extremities should be supported by a sling after splinting. Arm slings may be made of bandages, if available, or may be improvised from the ordinary clothing by using safety pins to fasten the coat sleeve to the front of the coat to support the arm. The coat flap may be used for the same purpose by pinning or by punching a hole through the lower edge of the flap and buttoning this to a coat button.

(B) TRANSPORTATION OF SICK AND WOUNDED

14-30. *GENERAL.*—After the patient has been given first-aid treatment as prescribed in section III, it is imperative that certain precautions be observed in his removal or transportation, which can best be accomplished by use of the service litter or an improvised litter. If conditions or lack of personnel do not warrant the use of a litter, he may be transported without litter (carried) or on horseback.

14-31. *SERVICE LITTER.*—a. The transportation of patients for moderate distances is best done with the service litter.

b. *Placing a patient on a litter.*—The method of placing a wounded man on a litter is shown in figure 14. An overcoat, blanket, pack, or other suitable article may be used as a pillow. If the patient is faint, the head should be kept low. Difficulty in breathing due to wounds of the chest is sometimes relieved by judicious elevation of the shoulders. In wounds of the abdomen the best position is on the injured side, or on the back if the front of the abdomen is wounded, the legs being drawn up and supported. In injuries of an upper extremity the best position is on the back with the arm

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across the body or suitably placed by the side. In injuries of a lower extremity the patient should be on the back or inclined toward the wounded side. Patients should be handled carefully and as gently as possible to avoid jarring the injured part.

c. Litter bearers.—Bearers should not keep step. The handles of the litter should be carried at arms length, and care should be taken to keep the litter level, especially over uneven ground.

d. Direction of carry.—The patient should normally be carried feet first except in going up a steep incline; however, in case of fracture of the lower extremities, the feet should be first going up and the head first coming down to prevent the weight of the body from pressing on the injured part.

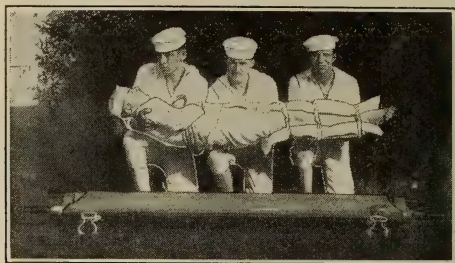


FIGURE 14.—Placing a patient on a litter.

14-32. *IMPROVISED LITTERS.*—*a.* When the service litter is not available, an improvised litter may be fabricated. Many things can be used for this purpose, some of which are as follows:

(1) The usual improvisation is with blankets or shelter tents, and poles about 7 feet long. The blanket is spread on the ground. One pole is laid across the center of the blanket which is then folded over it. The second pole is placed across the center of the new fold and the blanket is folded over the second pole as over the first.

(2) Sacks, bags, or bedticks, by ripping the bottom or snipping off the corners, passing two poles through them and tying cross pieces to the poles to keep them apart.

(3) A shelter half, a blanket, piece of matting or carpet may be fastened to poles by tacks or twine.

(4) A litter may be prepared by turning two or three blouses inside out and buttoning them up, sleeves inside, then passing poles through the sleeves; the backs of the blouses form the bed. Jumpers may be similarly employed.

(5) Camp cots, window shutters, doors, benches, and ladders, properly padded.

WITHOUT LITTER

(6) Rope, wire, or rawhide may be woven between poles and this network covered with a blanket.

(7) Hay, straw or leafy twigs, over a framework of poles and cross sticks.

b. An improvised litter should always be tested before placing a patient on it.

14-33. *WITHOUT LITTER.*—*a. The rifle seat.*—A good seat may be made by running the barrel of a rifle through each sleeve of an overcoat, turned inside out and buttoned up, sleeves inside, so that the coat lies back up, collar to the rear. The front bearer rolls the tail tightly around the barrels and takes his grasp over them; the rear bearer holds by the butts, trigger guards up.

b. Rifle-blanket seat.—A blanket being folded once from side to side, a rifle is laid transversely upon it across its center so that the butt and muzzle project beyond the edges; one end of the blanket is folded upon the other end and a second rifle laid upon the new center in the same manner as before. The free end of the blanket is folded upon the end containing the first rifle so as to project a couple of inches beyond the first rifle. The litter is raised from the ground with trigger guards up.

c. One bearer.—A single bearer may support a slightly injured man as shown in figure 15; lift and carry a patient in his arms as shown in figures 15 and 16; carry him pickaback as shown in figure 17; or across his shoulders. If the patient is helpless the last method is best. This is effected as follows:

(1) The bearer, turning patient on his face, steps astride his body, facing toward the patient's head and with hands under his armpits, lifts him to his knees; then clasping hands over abdomen, lifts him to his feet; next he seizes the right wrist of the patient with his left hand and draws the arm over the head and down upon his left shoulder as shown in figure 18; he now shifts himself in front, stoops, passes his right arm between the legs and grasps the patient's right wrist; with his left hand he grasps the patient's left hand and steadies it against his side as shown in figure 19; then he rises as shown in figure 20.

(2) In lowering the patient the motions are reversed. Should the patient be wounded in such a manner as to require these motions to be conducted from the right side instead of left, the change is simply one of hands, the motions proceed as directed substituting right for left and vice versa.

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FIGURE 15.—Supporting a slightly injured man; also completion of first step, in arms carry.

WITHOUT LITTER



FIGURE 16.—Final position, in arms carry.



FIGURE 17.—Pickaback carry.

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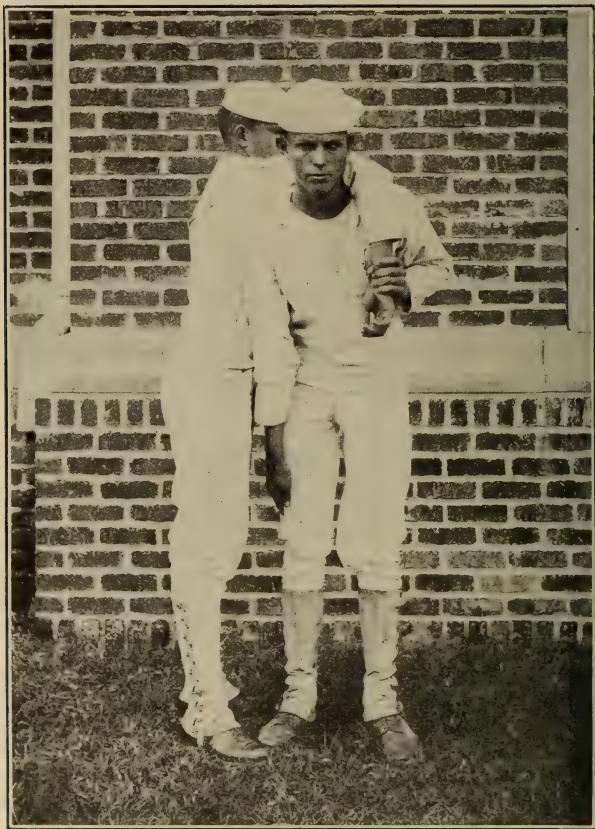


FIGURE 18.—Completion of first step, across-back carry.

WITHOUT LITTER



FIGURE 19.—Completion of second step, across-back carry.

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FIGURE 20.—Final position, across-back carry.

WITHOUT LITTER

d. One bearer, tied-hands crawl or carry.—Enemy observation and resultant fire may render all of the above methods of carry impracticable, in which case the following methods should be used:

(1) Lay the man on his back and place yourself upon your back by his left side, your head in the same direction as his. Grasp his right arm above the elbow from its under side with your right hand. With your left hand grasp his same arm below the elbow, from the top side. (See fig. 21.) Then, keeping the right side of your body

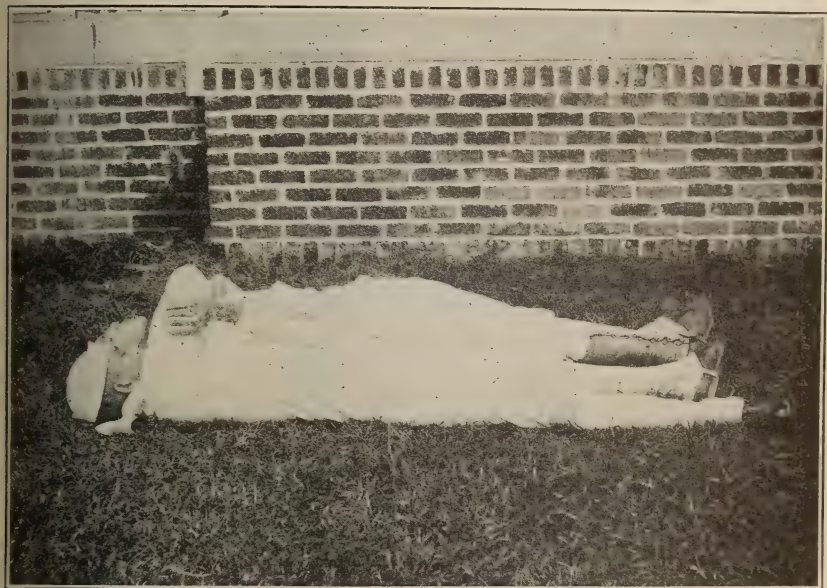


FIGURE 21.—Completion of first step, tied-hands crawl.

slightly upon the man's body and entwining your legs around his own, roll over to the left onto your stomach, pulling the man with you. The man is now lying face down on your back, with his left arm free and his right arm over your right shoulder. (See fig. 22.) After assuming this creeping or crawling position, draw the man's left arm under your left armpit. Secure both wrists of the man with any available material (cloth, bandage, neckerchief, handkerchief, etc.). You may then crawl with the man in this position (see fig. 23), or, when necessary, rise erect and climb ladders, or, if it is desired to carry him pickaback, reach behind and support his legs.

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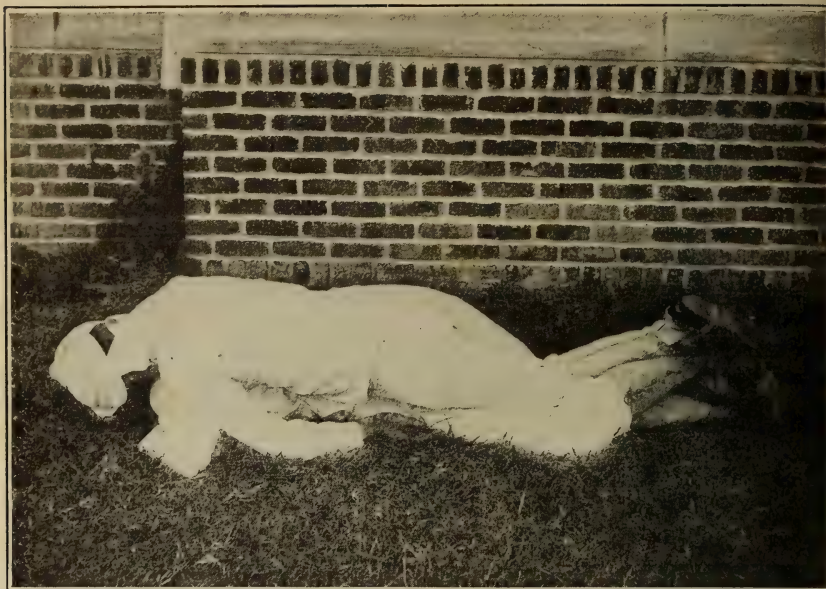


FIGURE 22.—Completion of second step, tied-hands crawl.

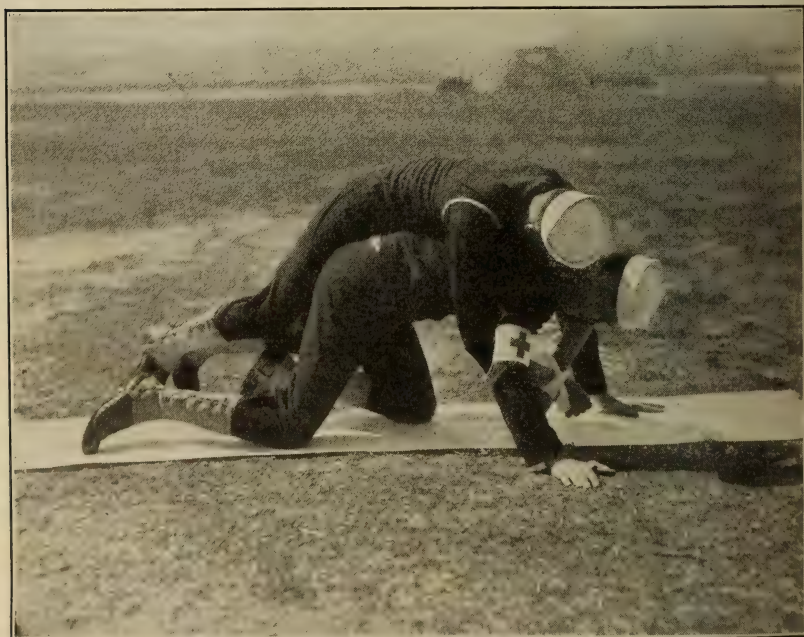


FIGURE 23.—Final position, tied-hands crawl.

ON HORSEBACK

(2) This method may be varied by tying the man's wrists together first and then lying down on top of him and inserting your head and shoulders through the loop formed by the man's tied wrists. Should the man's right arm be injured, place yourself on your back by his right side and grasp his left arm instead of his right, substituting your right arm or hand where the left is indicated in the text, and vice versa.

e. Two bearers (see fig. 24).—The bearers take position, one man between the patient's legs and one at his head, both facing toward his feet. The rear bearer, having raised the patient to a sitting posture, clasps him from behind around the body under the arms, the front bearer passes his hands from the outside under the flexed knees; both rise together. This method requires no effort on the part of the patient but is not applicable to severe injuries of the extremities, in which case a service or improvised litter should be used.

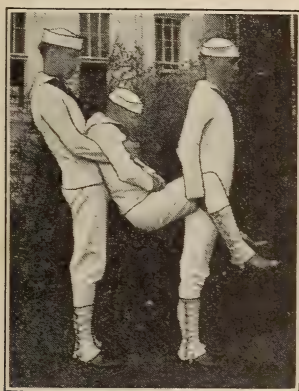


FIGURE 24.—Two-bearer carry.

14-34. *ON HORSEBACK*.—*a.* The help required to mount a disabled man will depend upon the location and nature of his injury. In many cases he is able to help himself materially. The horse, blindfolded if necessary, is held by an attendant.

b. Once mounted, the patient should be made as safe and comfortable as possible. A comrade may be mounted behind him to guide the horse; otherwise, a lean-back may be provided, made of a blanket roll, a pillow, or a bag filled with leaves or grass. If the patient is very weak, the lean-back may be made of a sapling bent into an arch over the cantle of the saddle, its ends securely fastened.

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(C) TREATMENT IN COMMON EMERGENCIES

14-35. *REMOVAL OF FOREIGN BODIES.*—*a. From the eye.*—

(1) Close the eye and allow the tears to accumulate. Do not rub the eye. After a few minutes open it again and the foreign body may be washed out by the tears. If the foreign body is under the lower lid, pull the lid down and have the patient roll the eye up and the foreign body may be easily brushed out by the corner of a clean handkerchief or a small swab made by wrapping a little cotton around the end of a match.

(2) If, as usual, the foreign body lies under the upper lid, grasp the eyelashes of the upper lid with the index finger and thumb of the left hand; place a match held in the right hand over the middle of the upper lid; then turn the lid over the match and the foreign body may be seen and removed (see fig. 25).

(3) Where pieces of steel or emery have become imbedded in the eyeball itself, they should be removed only by a surgeon.

(4) When acid is splashed into the eye, an alkaline preparation made from soda, magnesia, chalk, or lime should be used.

(5) When strong alkalies get into the eye, weak acid solutions such as diluted vinegar or lemon juice are employed.

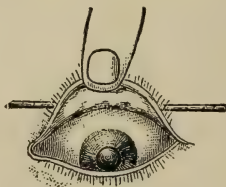


FIGURE 25.—Method of turning up the upper lid.

b. From the throat.—(1) *Symptoms.*—As the result of sudden interference with the breathing, the person clutches at his throat and gasps for air. There may be violent coughing or attempts to vomit; the face becomes blue.

(2) *Treatment.*—If another person is at hand, have him go or telephone for the nearest medical officer, notifying him of the nature of the accident. In the meantime attempt to dislodge the foreign body by slapping the back vigorously between the shoulder blades. If this is not successful, hold the patient by his feet with the head down and have someone slap his back between the shoulder blades.

(3) *When swallowed.*—When dangerous bodies have been swallowed, do not give an emetic or cathartic, for such treatment would

POISONOUS BITES AND STINGS

only make matters worse. Make the patient eat freely of bread and potatoes in order that the foreign body may be surrounded by a mass of soft material and in that way be carried safely through the bowels.

c. From the ear.—Foreign bodies in the ear, including insects, are best removed by gentle syringing with warm water (if a syringe is available) or by pouring water into the ear. Toothpicks, matches, etc., should not be used as serious injury to the ear may result. If the foreign body is not easily removed summon a doctor. Water should not be used to remove object which might swell in the ear.

14-36. *POISONOUS BITES AND STINGS.*—*a. Snake bites.*—(1) The rattlesnake, copperhead, and water moccasin are the most common poisonous snakes of North America. They may be readily identified by the following characteristics: Pit or depression between the eyes and nostrils; heart-shaped heads; thick bodies; teeth arranged in two rows; and two fangs, one on each side, outside of the teeth in the front part of the upper jaw. If the bite shows wounds from two rows of teeth and two fangs, it is that of a poisonous snake (see fig. 26). A single puncture usually means a fang prick. The teeth in the nonpoisonous snakes are arranged in four rows and the bite shows four punctures (see fig. 27).



FIGURE 26.—Imprint of poisonous snake.



FIGURE 27.—Imprint of nonpoisonous snake.

(2) *Symptoms.*—The bite of a poisonous snake causes great pain attended by rapid swelling, much depression and weakness, and followed quickly by death in some cases unless treatment is promptly given.

(3) *Treatment.*—(a) First-aid treatment of snake bites should be directed toward preventing the passage of the poison into the general blood circulation. Snake venom acts quickly, and, therefore, first-aid measures must be applied immediately. To prevent absorption of the venom, apply a tourniquet between the bite and the heart. Loosen tourniquet periodically as directed in par. 14-24 (3).

Make cross-cut incisions through the bite and also into the surrounding swollen tissue. Then get the poison out of the wounds by sucking blood from the cuts. This is the most important part of the treatment. Venom can be extracted by suction as late as 3 to 7 hours after a bite; therefore, suction should be continued. Alcohol, kerosene, permanganate of potash, and empirical remedies are useless. Cauterizing agents are harmful. Be sure to keep the patient quiet and take steps to prevent shock. If shock develops, treat as outlined in par. 14-26.

(b) *Insect bites and stings*.—Bites from scorpions and spiders and stings from bees, wasps, and similar insects are treated by applying locally a solution of ammonia or soda.

(c) *Animal bites*.—First-aid treatment for ordinary wounds may be administered, but medical advice should be sought as soon as possible as the bite might have been from an animal with or suspected of having rabies, in which case the wound should receive special treatment.

14-37. *POISONING*.—a. The following circumstances may indicate that poison has been taken:

- (1) Sudden sickness after eating, drinking, or taking medicine.
- (2) The person may have been sick, despondent, or has talked of suicide.
- (3) The presence of a bottle or glass in which some poison remains.
- (4) The person becomes frightened and tells that he has taken poison.
- (5) Frequently the odor of poison can be detected on the person's breath.

b. In all cases of poisoning, send for medical assistance immediately and, during the interim, administer first-aid treatment as prescribed below.

c. *Caustic (acid or alkaline)*.—The lips, tongue, or mouth show evidence of chemical burn. In case of carbolic acid poisoning, there is a strong carbolic odor. Do not attempt to produce vomiting, but administer the proper antidote, if known, or olive oil, cottonseed oil, castor oil, or milk.

d. *Noncaustic*.—If there is no evidence near the mouth of caustic injuries, first administer a tablespoonful of dry mustard or common salt in a cup of warm water to produce vomiting; after nausea has subsided, administer salts, castor oil, milk, beaten up raw eggs, or flour and water in moderate quantities; later, after the poison has been evacuated, administer strong coffee, tea, or aromatic spirits of

IVY OR SUMAC POISONING

ammonia as a stimulant. Keep the patient warm and rub the limbs toward the body to increase circulation.

e. Opium or morphine.—The pupils of the eyes are pin-point in size; breathing is shallow and slow; the person is very drowsy and, later, sleeps so soundly that it is almost impossible to arouse him. Keep him awake and on the move. Watch his respiration and, if it shows signs of failure or if it stops, administer artificial respiration (see par. 14-51 *c*).

f. Alcohol.—There is a strong odor of alcohol, the pupils of the eyes are dilated, eyeballs red but not insensitive to touch, and the face usually flushed. In severe cases administer a tablespoonful of dry mustard or common salt in a cup of warm water to produce vomiting. A teaspoonful of aromatic spirits of ammonia in a cup of water may help sober a drunken person. An ordinary case does not require any particular treatment. If unconscious, the condition may be due to brain injury and frequently the two conditions occur together. Examine for the odor of alcohol, and look for evidence of injury to head or body, inequality of pupils, and loss of use of arms or legs.

g. Wood alcohol.—This poison may cause total blindness. Administer a tablespoonful of dry mustard or common salt in a cup of warm water to produce vomiting, and keep the patient warm.

14-38. *IVY OR SUMAC POISONING.*—*a. Symptoms.*—This form of poisoning is quite common. It is a local irritation and inflammation of the skin caused by contact with the leaves of the poisonous plant. Within a few hours there is a reddening and itching of the skin, which becomes inflamed and swollen, blisters and even pustules often developing.

b. Treatment.—First scrub the part coming into contact with the ivy or sumac with soap and water to remove the poison. If available, a 4 percent solution of ferric chloride in equal parts of glycerine and water is an excellent wash and should be applied to all exposed surfaces. A solution of ferrous sulphate in water is just as effective. This treatment is a preventive measure if used before going in woods where poison ivy or oak grows. After the skin inflammation has developed the parts should be washed each day with lime water or boric acid solution, and then zinc oxide ointment, carbolyzed vaseline, or a solution of Epsom salts applied.

14-39. *GAS.*—*a. Poisoning.*—If poisoned by gases such as illuminating, charcoal, motor exhaust, or mine, remove patient to the open air and apply artificial respiration (see par. 14-51 *c*) and warmth (see par. 14-26 *c* (6)).

b. Tear gases.—Wash out the eyes with boric-acid solution, weak baking-soda solution, or limewater. **Do not bandage the eyes.**

c. Lung irritants.—Loosen the clothing and make the patient lie down and remain quiet. Use a litter or other means of transportation if necessary to move him.

d. Vesicants (blistering gases).—Give the patient a complete bath with liberal use of soap and a change of clothing as soon as circumstances permit. Contaminated clothing is a source of danger, and should be neutralized with an alkaline solution. Wash out the eyes with boric-acid solution and apply weak baking-soda to the affected parts; have the patient lie down and remain quiet; and apply warmth.

e. Rules for treatment of injuries from gases used in warfare.—
(1) Wear mask and gloves, if possible, when handling a gassed man. If gloves are not worn, wash hands with soap and water following the handling of such cases; or better, rub them with dry lime.

(2) Remove the patient's equipment, but not his mask if the air is permeated with gas.

(3) If possible, gas casualties should be kept separated from other casualties. They should be removed from woods or low ground to knolls or hillsides. Do not carry them into dugouts or cellars; gas being heavier than air seeks the lower levels. Do not allow badly gassed cases to walk.

(4) Do not bandage the eyes if they are affected.

(5) More detailed instructions, including the latest methods in handling gas casualties, will be furnished by the ship's gas officer.

14-40. *FREEZING.*—*a. Symptoms.*—The symptoms of frostbite are cold in the part, pain, then loss of sensation. The part affected becomes white or bluish white.

b. Treatment.—(1) The part affected should not be warmed before the fire but rubbed with snow or with a cloth dipped in cold water wrung dry. After the part has been rubbed well, dry it thoroughly and smear it with grease. If the symptoms continue, the part will become swollen and change color. If this occurs it is dangerous and medical attention is necessary.

(2) When a man becomes unconscious from cold, if possible carry him into a room without a fire, remove the clothing and rub vigorously with snow or with a wet cloth until signs of returning circulation are observed. When warmth and consciousness return, give him warm tea, cover him up warmly, and let him remain quiet.

SUNSTROKE

14-41. *SUNSTROKE*.—*a. Symptoms*.—The face is flushed, skin hot and dry, breathing labored, pulse rapid, and the heat of body great. The patient may be unconscious.

b. Treatment.—Place him in the shade and if ice is available place a pack on the head. Strip clothing off patient, cover with a sheet, sprinkle water on sheet and fan sheet vigorously.

14-42. *HEAT EXHAUSTION*.—*a. Symptoms*.—This is a condition of great depression of the system due to excessive or prolonged exposure to heat. It often begins with dizziness, nausea, and vomiting. The skin is cool and moist, the pulse feeble and fluttering, perhaps imperceptible, and the patient greatly depressed, though he may not be unconscious.

b. Treatment.—Apply heat to feet and abdomen or place in tub of water above body temperature. Salt should be added liberally to drinking water of men perspiring freely for prolonged periods to prevent heat exhaustion, cramps, and diarrhea.

14-43. *BURNS AND SCALDS*.—*a.* Burns are caused by dry heat such as flame, hot metal, and electric current. Scalds are caused by moist heat such as hot water or steam. Burns are also caused by acids or alkalies.

b. Treatment.—(1) *General*.—Remove the clothing by cutting or ripping. Do not pull it off. Do not break the blisters nor prick them even if large. Take steps to prevent shock or treat it if present (see par. 14-26).

(2) *Burns and scalds*.—Protect the burn or scald with a dressing soaked with a solution of tannic acid, pitric acid, or soda.

(3) *Acids*.—Flush the parts with water; then apply baking or washing soda and water, limewater, or soapsuds; after the acid has been neutralized, treat the burn as in subpar. (2) above. Burns from carbolic acid (phenol) should be washed with alcohol.

(4) *Alkalies*.—Wash the parts with water; then apply dilute vinegar or lemon juice; after the alkali has been neutralized, treat the burn as in subpar. (2) above.

(5) *Sunburn*.—Treat in the same manner as other mild burns.

14-44. *EXTINGUISHING BURNING CLOTHING*.—*a.* If your own clothing catches fire, do not run, as this but fans the flames. Lie down and roll up tightly in a coat, blanket, or anything at hand that will smother the flames, leaving only the head out. If there is nothing at hand with which to wrap up, lie down and roll over slowly, beating out the fire with hands at the same time.

b. If another person's clothing catches fire, throw him to the ground and, standing at his head, smother the fire with a coat, blanket, etc., held down with the foot at one corner. Whatever is used should be thrown forward toward the feet of the person thus sweeping the flames away from yourself and the face of the victim.

c. The air close to the deck is comparatively free from smoke, hence when unable to breathe, a rescuer should crawl along the floor with head low, dragging anyone who has been rescued behind him. A wet handkerchief or cloth tied over the mouth and nostrils minimizes the danger of suffocation.

14-45. *ELECTRIC SHOCK*.—*a. Symptoms*.—Persons suffering from such injuries are usually unconscious; the pulse is feeble and irregular and the breathing is slow and faint. The parts of the body that have come in contact with a live wire are burned and blistered.

b. *Treatment*.—(1) The most important thing to do is to remove the person from contact with the wire or electric machinery. This is always dangerous and should not be attempted until some means of insulation is available. The hands should be protected with rubber gloves, a rubber blanket, or several thicknesses of silk or dry clothing. The rescuer should be further insulated by standing on a rubber mat, pane of glass, or dry board.

(2) The treatment of electric shock is the same as for ordinary shock following an injury or accident (see par. 14-26). The heart and respiration should be stimulated, the body kept warm by the application of heat, and artificial respiration used if indicated (see par. 14-51 c). Patients who are likely to recover will show signs of life within 25 minutes; however, treatment should be continued for a longer period.

(3) The treatment of electric burns is the same as for ordinary burns (see par. 14-43).

14-46. *FAINTING*.—*a. Cause*.—This condition may result from injury, slight or severe bleeding, exhaustion, and emotional disturbance. It is directly caused by too little blood in the brain.

b. *Treatment*.—Place the patient upon his back with the head lowered and the feet elevated. Loosen the clothing. Fresh air should be provided by preventing crowding around the patient, by opening the doors and windows, or by taking the patient into the open. Apply cold water to the face and let him inhale smelling salts (ammonia).

EPILEPTIC FITS

14-47. *EPILEPTIC FITS*.—*a. Symptoms*.—During an epileptic fit the patient frequently utters a peculiar cry before falling, immediately becomes unconscious, falls, and has convulsions, jerking the arms, legs, and body. The face becomes deathly pale, the eyes roll and are turned upward. There may be foaming at the mouth and if the tongue is bitten the foam is bloody. Nothing can be done to stop the fit after it has begun.

b. Treatment.—Lay the person on his back and control movements which might cause injury. Place a folded towel or other convenient wedge between the teeth so that the tongue will not be bitten. The convulsions usually last only a few minutes and then the person falls into a deep sleep which should not be interrupted.

14-48. *INTRACRANIAL (BRAIN) INJURY*.—*a. Symptoms*.—Blows on the head may cause concussion or compression of the brain. The patient becomes pale, feels weak and dizzy, has a headache, and frequently is nauseated and vomits. Unconsciousness may follow. If the blow is severe unconsciousness may occur immediately. If there is bleeding or fluid running from the nose or ears the skull has probably been fractured. Unconsciousness may occur, particularly in elderly persons, without any history or evidence of a blow on the head. This is due to a rupture of a diseased blood vessel of the brain and brain hemorrhage (apoplexy). These conditions need not be differentiated because the treatment is the same.

b. Treatment.—Keep patient quiet, protect from exposure, apply heat to feet and abdomen if patient is chilled. Keep head elevated and cool by applying cool cloths or an ice pack. Do not give stimulants.

(D) LIFE SAVING METHODS AND RESUSCITATION

14-49. *SWIMMING QUALIFICATIONS*.—*a. To develop proficiency in swimming and life saving and to reduce materially the occasions requiring the application of life saving and resuscitation, all personnel should be taught to swim, and under supervision of an officer, as their abilities permit, be given the following described tests, each of which must be completed on the same day as begun. Each test will include a demonstration by the individual of resuscitation of the apparently drowned:*

(1) *Second class swimmer:*

(a) Enter the water by dive or jump.

(b) Tread water 30 seconds.

(c) Float (using hand scull if necessary).

FIRST AID

(d) By a combination of swimming and floating, traverse 100 yards, fifty yards of which will be continuous swimming.

(2) *First class swimmer:*

(a) Enter the water by dive.

(b) Swim 100 yards continuously by using the crawl for 40 yards, and the side stroke, breast stroke, and back stroke, each for 20 yards.

(c) Make a surface dive in from 6 to 8 feet of water and retrieve a 10 pound weight.

(d) In deep water, divest himself of pack, belt, bayonet, and swim 50 yards with rifle.

(3) *Expert swimmer:*

(a) In deep water, disrobe from shoes, trousers, and shirt, and swim 100 yards by using crawl, side stroke, breast stroke, and back stroke, each for 25 yards.

(b) Demonstrate the following approaches:

Under water approach.

Rear approach.

Front surface approach.

(c) Demonstrate the following carries, each preceded by a swim of 60 feet, the carry to continue in each case for 60 feet:

Tired swimmer carry.

Hair carry.

Cross chest carry.

Head carry.

(d) Demonstrate the following shallow water to shore carries:

Fireman's carry.

Saddle back carry.

(e) Demonstrate the following release methods and carry 30 feet after each release:

Front head hold release.

Rear head hold release.

Wrist grip release.

Double-drowning hold release.

b. For detailed instructions on swimming and life saving, see TR 115-5, Part 2, and current American Red Cross publication on Life Saving and Water Safety.

14-50. *LIFE SAVING METHODS.*—a. The rescue of drowning persons and the resuscitation of the apparently drowned are of particular importance to all landing-force personnel.

b. The rescue of a drowning person **should never be attempted by swimming** if safer means are available.

RESUSCITATION

c. Rescues may be divided into the following classes:

- (1) From shore.
- (2) By wading.
- (3) Boat rescue.
- (4) Swimming rescue.

d. The danger of fatal submersion, as far as the landing force is concerned is limited to the ship to shore movement. It may occur during embarkation; the sinking of boats by gun fire; by loss of control and overturning of boats as they hit the beach. The securing of a lea for the boats and use of cargo nets will largely eliminate embarkation hazards. Life boats detailed to accompany the boat convoy provide for rescue of personnel en route to the beach. Personnel thrown into the water by boats being overturned as they reach the shore, are normally rescued from shore by wading. In this last contingency, the primary danger is in being trapped or crushed by the boat and drowned, unless immediate aid, including resuscitation, is immediately forthcoming.

14-51. *RESUSCITATION*.—a. *When the victim is brought ashore still breathing and conscious*.—Do not allow the victim to walk or even to stand unsupported. Additional effort may bring on a collapse due to his physical and mental state caused by fear and extremely violent exertion.

b. *When the victim is suffering from shock*.—For symptoms and treatment see par. 14-26. Artificial respiration should never be applied while the victim is still breathing unless it is apparent that respiration is about to cease, therefore the rescuer should observe the victim at all times in readiness to use artificial respiration.

c. *Artificial respiration*.—Whether the victim has ceased to breathe as a result of drowning, asphyxia, other forms of suffocation, or electric shock, the technique of artificial respiration is the same and as follows:

(1) Lay the patient on his stomach, one arm extended directly overhead, the other arm bent at elbow and with face turned outward and resting on hand or forearm, so that the nose and mouth are free for breathing (see fig. 28).

(2) Kneel straddling the patient's thighs or thigh with your knees placed at such a distance from the hip bones as will allow you to assume the position illustrated in figure 28.

(3) Place the palms of the hands on the small of the back with fingers resting on the ribs, the little finger just touching the lowest

FIRST AID

rib, with the thumb and fingers in a natural position, and the tips of the fingers just out of sight (see fig. 28).

(4) With arms held straight, swing forward slowly, so that the weight of your body is gradually brought to bear upon the patient. The shoulder should be directly over the heel of the hand at the end of the forward swing. Do not bend your elbows. (See fig. 29.) This operation should take about two seconds.

(5) Now suddenly swing backward, so as to remove the pressure completely (see fig. 30).

(6) After two seconds, swing forward again. Thus repeat deliberately twelve to fifteen times a minute the double movement of compression and release, a complete respiration in four or five seconds.

(7) Continue artificial respiration without interruption until natural breathing is restored, if necessary, four hours or longer, or until a medical officer declares the patient is dead.

(8) As soon as this artificial respiration has been started and while it is being continued, an assistant should loosen any tight clothing about the patient's neck, chest, or waist. **Keep the patient warm.** Do not give any liquids whatever by mouth until the patient is fully conscious.

(9) To avoid strain on the heart when the patient revives, he should be kept lying down and not allowed to stand or sit up. If the medical officer has not arrived by the time the patient has revived, the patient should be given some stimulant, such as one teaspoonful of aromatic spirits of ammonia in a small glass of water or a hot drink of coffee or tea, etc. The patient should be kept warm.

(10) Resuscitation should be carried on at the nearest possible point to where the patient received his injuries. He should not be moved from this point until he is breathing normally of his own volition and then moved only in a lying position. Should it be necessary, due to extreme weather conditions, etc., to move the patient before he is breathing normally resuscitation should be carried on during the time that he is being moved.

(11) A brief return of natural respiration is not a certain indication for stopping the resuscitation. Not infrequently the patient, after a temporary recovery of respiration, stops breathing again. The patient must be watched and if natural breathing stops, artificial respiration should be resumed at once.

RESUSCITATION

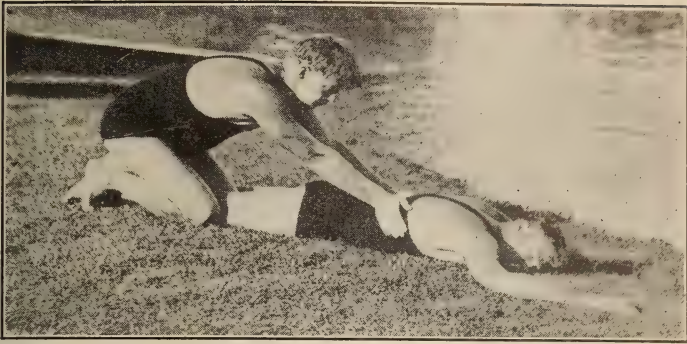


FIGURE 28.—Artificial respiration, ready to apply pressure.

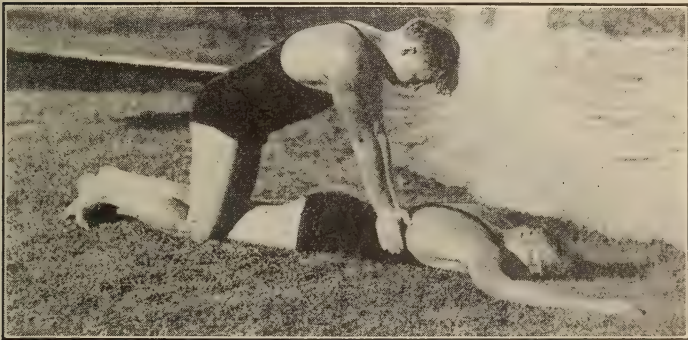


FIGURE 29.—Artificial respiration, pressure applied.

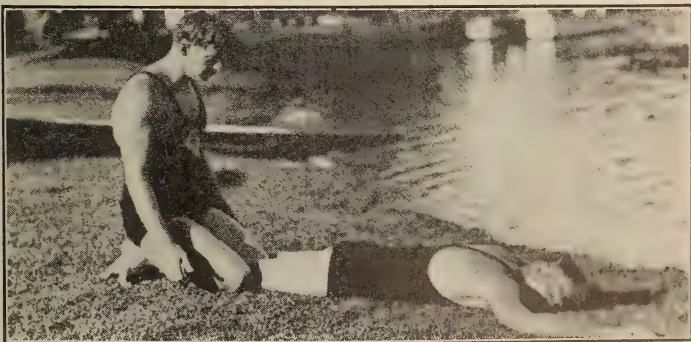


FIGURE 30.—Artificial respiration, pressure released.

(Figures 28, 29, and 30, by courtesy of the American Red Cross.)

FIRST AID

(12) In carrying out resuscitation it may be necessary to change the operator. This change must be made without losing the rhythm of respiration. By this procedure no confusion results at the time of change of operator and a regular rhythm is kept up.

d. Supplementary treatment.—While carrying on artificial respiration organize helpers, but do not stop artificial respiration. Send for a physician, blankets, hot water bottles or heated bricks, hot water or tea or coffee for stimulants (no alcoholics). Have patient's clothing loosened around neck and chest; mouth and nose cleared of any mucous or mud, and tongue moved back and forth occasionally to stimulate reflexes; body and limbs rubbed toward the heart. Have blankets and hot water bottles applied, but do not apply hot articles next to the patient's skin. Place aromatic spirits of ammonia near patient's nose. Prevent a crowd from closing in so as to give the patient plenty of air. Select an intelligent helper to watch you and so instruct him that he may be able to take your place when you need a relief.



LANDING-FORCE MANUAL

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CHAPTER 15

EXTENDED-ORDER EXERCISES, COMBAT PRINCIPLES OF THE RIFLE SQUAD AND PLATOON AND COMBAT SIGNALS

(Reprinted 1941 with all changes up to and including No. 5)



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FOREWORD

The Landing-Force Manual, U. S. Navy, 1938, is published in nineteen chapters as follows:

- CHAPTER 1. INTRODUCTION.
- CHAPTER 2. INDIVIDUAL INSTRUCTION WITHOUT ARMS AND WITH ARMS (RIFLE, AUTOMATIC RIFLE, SUBMACHINE GUN, PISTOL, AND BAYONET).
- CHAPTER 3. DRILL, THE SQUAD, PLATOON, AND COMPANY.
- CHAPTER 4. FORMATIONS OF THE BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 5. CART DRILL.
- CHAPTER 6. DRILL, MACHINE GUN, CALIBER .30.
- CHAPTER 7. DRILL, THE SPECIAL-WEAPONS PLATOON (37-MM GUN AND 81-MM MORTAR).
- CHAPTER 8. DRILL, ARTILLERY.
- CHAPTER 9. THE INFANTRY PACK, AND DISPLAY OF EQUIPMENT AND CLOTHING.
- CHAPTER 10. CEREMONIES; AND MANUAL OF THE COLOR, SWORD, AND GUIDON.
- CHAPTER 11. INTERIOR GUARD DUTY AND GUARD MOUNTING.
- CHAPTER 12. MARCHES, SECURITY ON THE MARCH, AND OUTPOSTS.
- CHAPTER 13. TENT DRILL AND SHELTER.
- CHAPTER 14. FIELD SANITATION, PERSONAL HYGIENE, AND FIRST AID.
- CHAPTER 15. EXTENDED-ORDER EXERCISES, COMBAT PRINCIPLES OF THE RIFLE SQUAD AND PLATOON, AND COMBAT SIGNALS.
- CHAPTER 16. TACTICS AND TECHNIQUE OF THE RIFLE COMPANY AND INFANTRY BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 17. THE DEFENSE AND ATTACK OF CITIES, RIOT DUTY, AND NATIONAL DISASTERS.
- CHAPTER 18. PHYSICAL DRILL.
- CHAPTER 19. SMALL ARMS MARKSMANSHIP.

LANDING-FORCE MANUAL

UNITED STATES NAVY

CHAPTER 15

EXTENDED-ORDER EXERCISES, COMBAT PRINCIPLES OF THE RIFLE SQUAD AND PLATOON AND COMBAT SIGNALS

NOTES

(1) The extended order exercises and combat principles prescribed in this chapter are based on a platoon of 3 rifle squads; however, with simple modifications they are suitable for a platoon of 4 squads, providing the platoon is not divided into 2 sections.

(2) Platoons containing more than 4 squads should be divided into 2 sections.

(3) This chapter is based on BFM, FM 22-5 (Chapter 10, Extended Order).

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SECTION I

EXTENDED ORDER, GENERAL

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15-1. *PURPOSE*.—The purposes of extended-order exercises are :

- (1) To teach the mechanism of deployment.
- (2) To teach formations for use under fire.
- (3) To teach methods of advancing in combat.
- (4) To teach the use of ground and cover.

15-2. *GENERAL RULES*.—The following general rules apply to all extended-order exercises :

- a.* Extended-order exercises are executed at ease.
- b.* They are not intended as disciplinary drills or drills of precision. Straight lines are avoided except when halted behind linear cover.
- c.* They should be held upon ground affording concealment and cover. When such terrain is available within reasonable proximity to the ship or station, only such preliminary training is permitted on flat or bare drill grounds as is necessary to teach the mechanism of deployment and to illustrate the different formations and movements.
- d.* They should always depict definite tactical situations as regards to own and enemy fire, dispositions, movements, observation, or similar conditions.
- e.* In general, only average distances and intervals between units are prescribed herein, instead of maximum and minimum limits. The terrain, enemy fire, and the necessities of control and room for maneuver are the governing factors which determine distances and intervals most suitable. In the open (pastures, gardens, plazas, etc.), when visibility is good, the minimum distance or interval between individual men in extended-order formation is 5 paces. As visibility decreases, control becomes more difficult. Intervals and distances between individuals and units are decreased in woods, fog, smoke and darkness.
- f.* The company commander should prescribe the formation for his company as a whole and may prescribe the initial formations for platoons and squads. However, during the advance the leaders

EXTENDED ORDER, GENERAL

of platoons and squads should be given full initiative in varying the formation of their units so as to make best use of ground and cover.

g. In combat, important responsibilities will devolve upon the petty officer, therefore in extended-order exercises he should be given opportunity for developing initiative and leadership.

h. The platoon leader and senior petty officers control their squads through the squad leaders. They issue their orders to the squad leaders and then see that they are carried out.

i. The prone position is the usual position for the skirmisher when deployed and when not advancing. The sitting or kneeling position may be used by him when necessary to obtain a better field of fire.

j. Platoon leaders deploy, assemble, and maneuver their units as far as practicable by arm signals. The use of the whistle as a preliminary to a command is retained for the fire fight when, on account of the noise of battle, it is impossible to attract the attention of petty officers and skirmishers by other means. For authorized signals see section X.

k. Changes in the direction of march are usually accomplished by assigning a new march direction to the base squad. Skirmishers place themselves on the new front and reestablish their proper intervals by gradually opening out from or closing in on the base squad as may be necessary.

l. Movements may be interrupted by the commands: **HALT** or **DOWN**. On halting, a deployed line habitually faces to the front (direction of the enemy). If halted by the command **Down**, skirmishers take cover, and those in the assault wave or on an exposed flank place themselves in immediate readiness for opening fire.

m. Deployment as skirmishers is made at a run. Other movements are made at a walk unless otherwise ordered.

15-3. **FIRE ORDER.**—*a.* A fire order consists of three elements; i. e., range, designation of the target, and the order to commence firing. The sequence is:

(1) *Range.*—Being in any firing formation, rifles being loaded or loading being simulated, the commands are: **RANGE, SIX HUNDRED (FIVE HUNDRED, THREE FIFTY, etc.)** or **BATTLE SIGHT**. At this command sights are set as ordered. When practicable, squad leaders verify the sight setting on each rifle.

(2) *Designation of the target.*—The target must be specifically designated, either by a tracer bullet or by pointing with arm or rifle

FIRE ORDER

and describing it orally. The designation of the target may be omitted when the target appears suddenly and is unmistakable.

(3) *To commence firing.*—Being in any firing formation the command is: **COMMENCE FIRING**. Each man, independently of the others, comes to the ready, aims carefully and deliberately at the target, fires, reloads, and continues firing until ordered to cease firing. (For cease firing, see chapter 2.)

b. Examples of fire orders are:

(1) 1. **RANGE, FIVE HUNDRED**, 2. **ENEMY THERE** (pointing), 3. **COMMENCE FIRING**.

(2) 1. **BATTLE SIGHT**, 2. **COMMENCE FIRING** (in case the target appears suddenly and is unmistakable).

SECTION II

EXTENDED ORDER, THE INDIVIDUAL SKIRMISHER

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15-4. *USE OF THE BAYONET*.—When in extended order, the orders to **fix bayonets** or **unfix bayonets** will be executed promptly and in a manner most expeditious and convenient for the individual. The orders will not be executed in cadence.

15-5. *TO LIE DOWN*.—Being at a halt, marching, or running, the command to lie down is: **DOWN**. Whenever practicable the prone and other firing positions are assumed as prescribed in Chapter 19, Landing Force Manual.

15-6. *TO MOVE FORWARD*.—*a*. If lying down, to move forward at a run, the commands are: 1. **CEASE FIRING**, 2. **Prepare to rush**, 3. **UP** or **FOLLOW ME** (or other command requiring a move forward at a run).

b. To move forward other than at a run from the position of lying down, the movement is executed at the command: 1. **Forward**, 2. **MARCH**.

15-7. *USE OF COVER*.—During extended-order exercises and in combat all individuals are required to utilize available cover. The following points should be stressed:

(1) In taking advantage of cover, it must be possible to fire easily and effectively upon the enemy.

(2) When halted, remain motionless and expose the body as little as possible.

(3) Advance as close as possible to the enemy without firing. (Long-range rifle fire is not very effective.)

(4) While advancing, move as rapidly as possible from cover to cover, as a man appearing suddenly and running rapidly furnishes a poor target. Select the new position before leaving the old.

(5) Keep off the skyline.

(6) Make short halts. The longer a position is occupied the greater the danger of being located and subjected to accurate fire.

EXTENDED ORDER, THE INDIVIDUAL SKIRMISH

(7) Whenever possible, keep down and fire from the right side of cover (tree, bush, etc.).

(8) If possible, avoid looking over the top of concealment unless its outline is broken.

(9) Whenever practicable, cover should be improved by use of camouflage and digging.

(10) The proper advance of the platoon as a whole and the effectiveness of its fire are of greater importance than the question of cover for individuals.

(11) Concealment from hostile air observation is important.

SECTION III

EXTENDED ORDER, THE RIFLE SQUAD

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15-8. *DISTANCES AND INTERVALS BETWEEN MEN WHEN DEPLOYED.*—Five paces between men is given in the description; however, this is variable. The squad leader may direct lesser or greater intervals and distances and individual skirmishers vary their position so as to take full advantage of cover or concealment. Close grouping in the open is avoided, but two or three men may group together to take advantage of some good cover or concealment.

15-9. *DISPOSITIONS.*—Dispositions of the rifle squad are—

Squad column.

As skirmishers.

As skirmishers right (or left).

Squad wedge.

a. Squad column (fig. 1).—At the command given when the squad is disposed in any manner, its members form in an irregular column behind the squad leader. The disposition of individuals in the column will be adapted to the terrain and circumstances and may vary from a widely spaced and staggered column suitable for crossing very open country to a column of files closed up behind the leader.

b. As skirmishers (fig. 2).—At the signal or command, usually given from squad column but permissible from any disposition, the squad deploys in an irregular line as shown in figure 2. Even numbers go to the right, odd numbers to the left. The squad leader is in front of his squad when it is advancing. When it halts to fire he drops back behind the line to a position from which he can control his squad and observe to the front. If there is an automatic rifleman in the squad, he joins the squad leader and waits orders for any special fire mission.

EXTENDED ORDER THE RIFLE SQUAD

c. As skirmishers right (or left) (fig. 3-A).—At the signal or command, usually given from squad column but permissible from any disposition, the squad deploys to the right as shown in figure 3-A. The squad leader is in front of his squad when it is advancing. When it halts to fire he drops back behind the line to a point from which he can control his squad and observe to the front. If there is an automatic rifleman in the squad, he joins the squad leader and waits for orders for any special fire mission.

 Squad Leader













 2nd in Command

FIGURE 1.—Squad column (distance between men, 5 paces; depth of column, 40 paces; width, 5 to 20 paces).

d. Squad wedge (fig. 3-B).—At the command, usually given from squad column but permissible from any disposition, the men dispose themselves in an irregular wedge behind the squad leader as shown in figure 3-B. If there is an automatic rifleman in the squad, he takes position in the center of the wedge unless otherwise directed.

15-10. *ADVANCE BY INDIVIDUALS.*—To advance by individuals (infiltration) the squad leader indicates the objective, the man or men who are to start the movement, and commands or signals: **FORWARD.** Each man chooses the time and method for his own

RUSHES

advance so as to take advantage of existing cover and to avoid enemy fire. If the objective is not indicated, the leading men select the next cover or firing position. They do not advance so far as to lose contact with their squad leader. The squad leader follows after the first three or four men, directing their advance, if necessary. The second in command insures that the others follow.

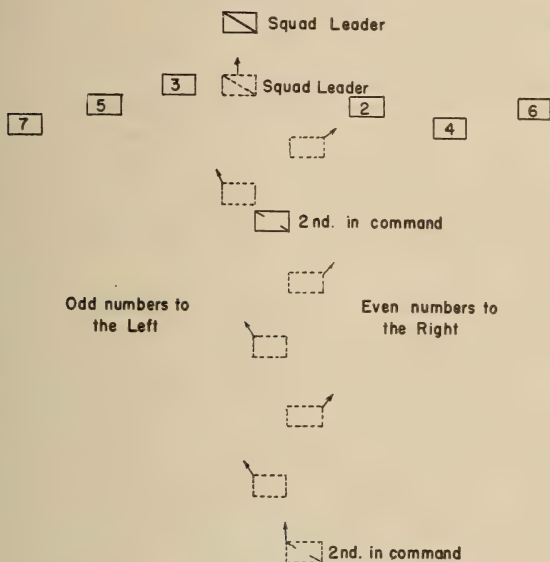


FIGURE 2.—As skirmishers (interval between men, 5 paces; frontage of squad, 40 paces).

15-11. *RUSHES*.—*a*. When it is desired to move the entire squad simultaneously from cover to cover, the leader commands: 1. **Prepare to rush**, 2. **FOLLOW ME**. At the command **Follow me**, all men spring forward, following the example of the leader. If necessary for safety, the squad leader may first command: **CEASE FIRING**. The rush terminates when the squad has closed with the enemy or when the leader commands or signals **Down**.

b. The rush may be executed by the entire squad as a unit, as explained above, or by any fraction or individuals thereof. In the latter case the leader designates the part of the squad, or the individuals, who are to make the rush and the next position.

15-12. *FOLLOW THE SQUAD LEADER*.—The leader places himself in front of his unit and commands: **FOLLOW ME**. The other members of the squad follow him, retaining the approximate disposition of the unit at the time when the command was given.

EXTENDED ORDER, THE RIFLE SQUAD

15-13. *TO ASSEMBLE THE SQUAD*.—At the signal or command **Assemble**, the squad assembles on the leader and in column with 40 inches distance between men.

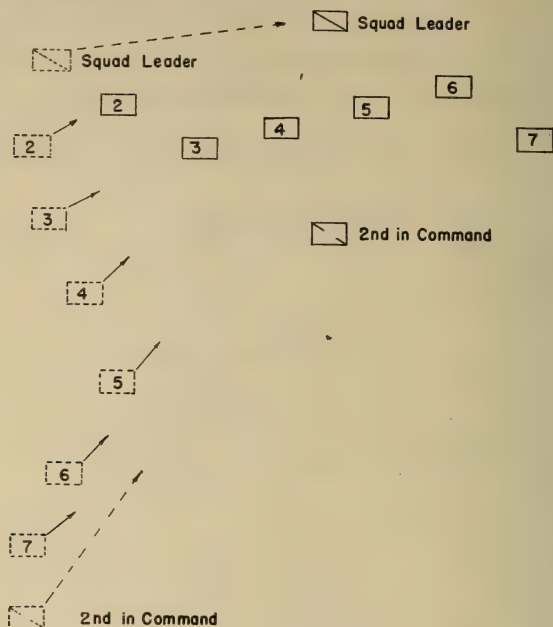


FIGURE 3-A.—As skirmishers right (or left).

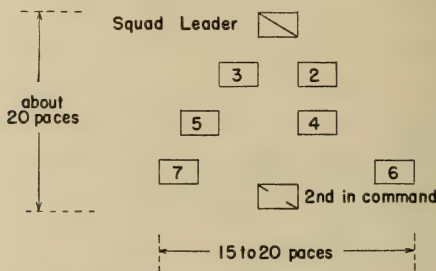


FIGURE 3-B.—Squad wedge.

15-14. *SCOUTS*.—*a*. In each rifle squad, Nos. 2 and 3 are designated as scouts and receive special training.

b. When advancing in the presence of the enemy, the squad (platoon or company) is preceded by its scouts who seek out the enemy and prevent surprise. Scouts precede the squad at such distance that it will not be subjected to surprise small-arms fire.

c. To cause the scouts to precede their unit, the command is: **SCOUTS OUT**. The scouts move forward in front of their units and maintain contact with the unit from which sent on.

SECTION IV

COMBAT PRINCIPLES, THE RIFLE SQUAD

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15-15. *COMBAT PRINCIPLES OF THE RIFLE SQUAD.*—*a.* During the fire fight, the paramount duties of the squad leader are to enforce the fire discipline of and to control the effectiveness of the fire of his squad.

b. The control of a squad when under fire is difficult. When close to the enemy, the noise usually makes the use of the voice impossible. Under such conditions the squad leader moves from man to man to give his orders.

c. The squad leader himself does not fire except under unusual circumstances, as when in defense and the enemy is beginning his assault. Normally it is more important for the squad leader to control the fire of seven rifles than to have eight rifles firing uncontrolled.

d. The squad leader prevents excessive scattering when members of his squad are seeking cover. The more the squad scatters, the more difficult is control.

e. The best protection from fire is well directed and heavier return fire. Such fire keeps the enemy pinned down and prevents him from firing accurately.

f. During the last stages of the fire fight, or at other times when control by the platoon leader has become lost, squad leaders will often have to conduct the attack without orders.

g. Should the squad become separated from its platoon, it must under no circumstances fall back. Every effort must be made to locate and join near-by friendly troops. The squad then comes under the orders of the leader of these troops.

h. Digging In.—If at any time the squad is unable to advance, men are placed in positions from which they can fire on the enemy or cover the ground to the front. Unless natural cover (ditch, building, etc.) is available, they should dig individual pits. These pits are holes (fox holes) dug hastily and deep enough to afford protection from rifle fire and shell fragments. In digging, men who have no intrenching tools should use canteen cups, knives, meat cans, or meat-can covers.

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Dispositions	15-17	15
Methods of advancing and assembly.....	15-18	15

15-16. *DISTANCE AND INTERVALS BETWEEN MEN WHEN DEPLOYED*.—The distance and intervals indicated in figures 4 to 8 are variable but conform in general to those of the rifle squad. The organization of the automatic rifle squad lends itself readily to employment as a unit or as two separate gun teams.

15-17. *DISPOSITIONS*.—*a*. Dispositions of the automatic rifle squad are—

- Squad column (figs. 4 and 5).
- As skirmishers (fig. 6).
- As skirmishers right (or left) (fig. 7).
- Squad wedge (fig. 8).

b. The commands and dispositions of the automatic rifle squad in general are as prescribed for the rifle squad except that the automatic rifle squad forms by teams as indicated.

15-18. *METHODS OF ADVANCING AND ASSEMBLY*.—As prescribed for the rifle squad.

EXTENDED ORDER, AUTOMATIC RIFLE SQUAD



SQUAD LEADER



AUTOMATIC RIFLEMAN



ASSISTANT
AUTOMATIC RIFLEMAN



CARRIER



AUTOMATIC RIFLEMAN



ASSISTANT
AUTOMATIC RIFLEMAN



CARRIER



SECOND IN
COMMAND

FIGURE 4.—Automatic rifle squad column (closed) (distance between men approximately five paces).

EXTENDED ORDER, AUTOMATIC RIFLE SQUAD

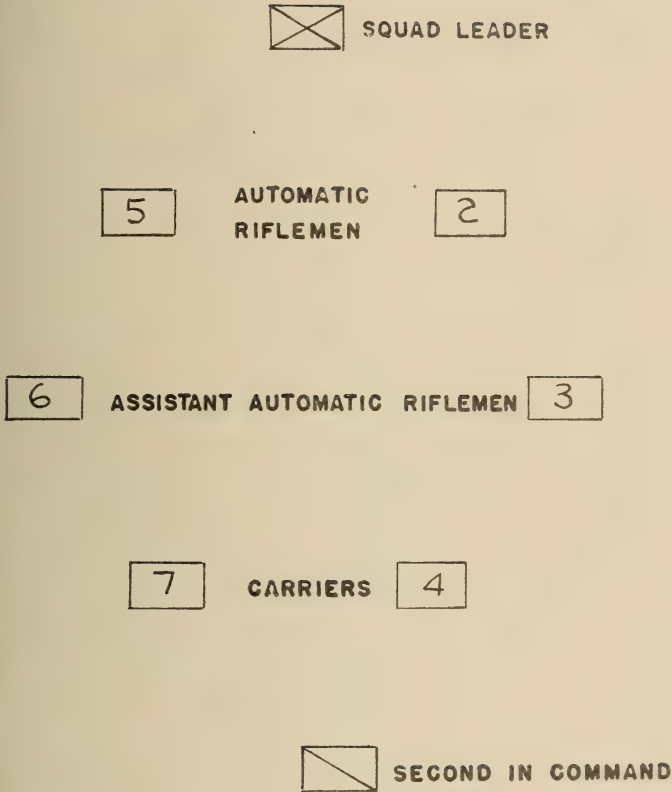


FIGURE 5.—Automatic rifle squad column (opened) (distance between men approximately 5 paces; width approximately 20 paces).

EXTENDED ORDER, AUTOMATIC RIFLE SQUAD

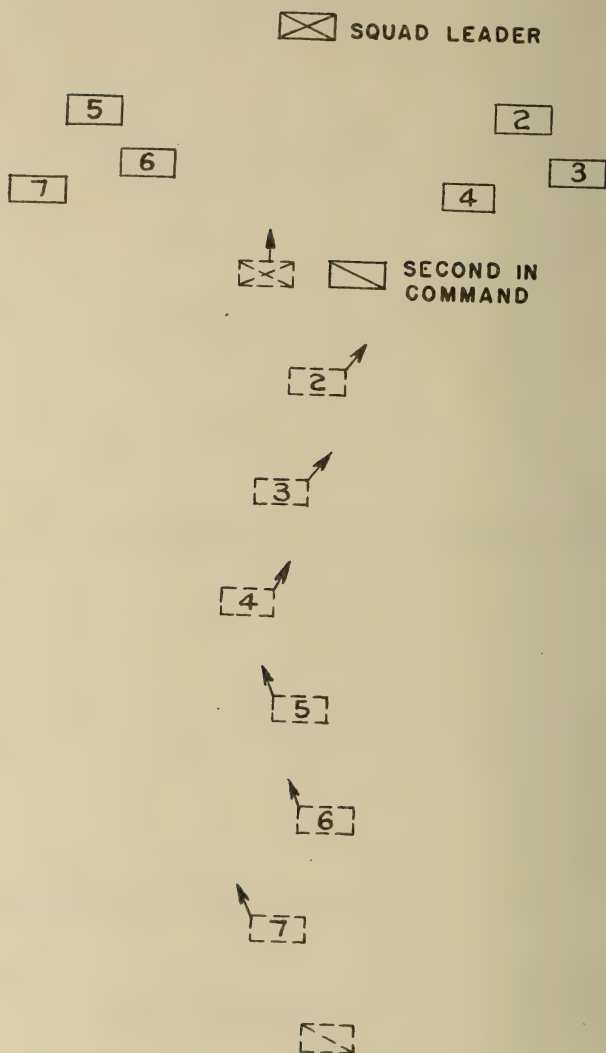


FIGURE 6.—Automatic rifle squad as skirmishers.

EXTENDED ORDER, AUTOMATIC RIFLE SQUAD

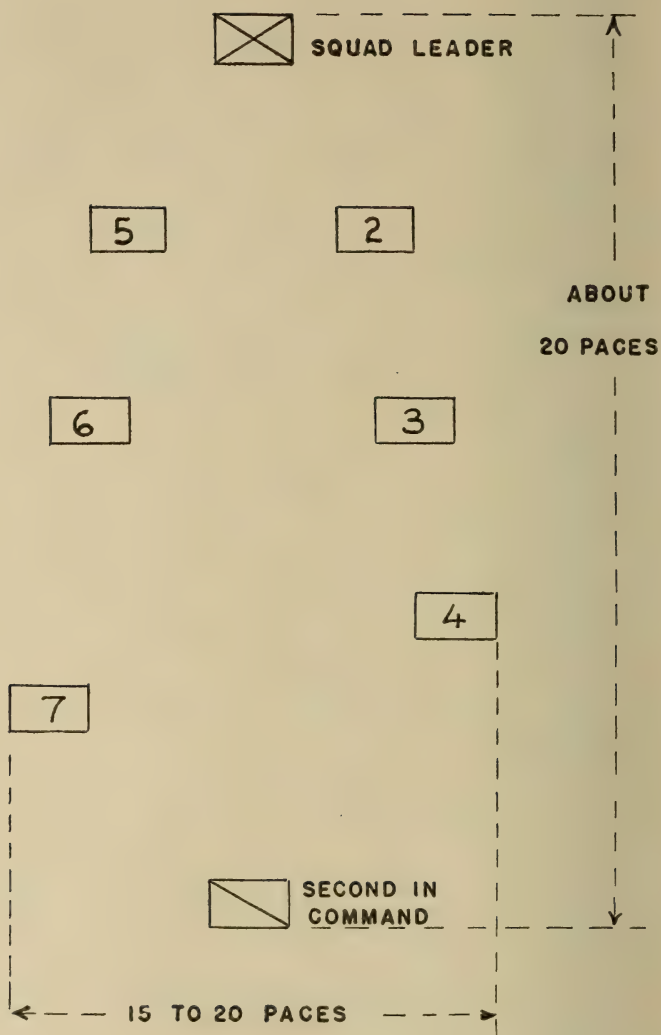


FIGURE 8.—Automatic rifle squad wedge.

SECTION VI

EXTENDED ORDER. THE RIFLE PLATOON

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Platoon column-----	15-24	22
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To deploy the squads as skirmishers-----	16-27	23
To assemble the platoon-----	15-28	24
To advance the platoon-----	15-29	24
Antiaircraft deployment-----	15-30	24

15-19. *DIRECTION OF DEPLOYMENT AND ADVANCE.*—

a. The platoon is trained to deploy in any direction in silence and without confusion. The direction is indicated by the leader pointing or moving in the desired direction.

b. The direction of advance may be indicated by the leader pointing or moving in that direction; by designating prominent terrain features such as building or lone tree; by magnetic azimuth; by indicating to the leader of the base unit the route to be followed; or by any combination of the above. Where an advance is to take place in an assigned direction for a considerable time, both a distant direction point and a magnetic azimuth should be designated.

15-20. *THE BASE SQUAD.*—*a.* The center rifle squad is the base squad, with the following exceptions:

- (1) When in platoon column, the leading squad is the base squad.
- (2) When deployed in squad columns or as skirmishers with one squad back, the right flank squad is the base squad unless otherwise indicated.

b. The other squads of the platoon maintain direction and relative position by regulating on the base squad.

15-21. *DISPOSITIONS.*—*a.* The platoon may use any of the following dispositions:

- (1) Column of threes.
- (2) Column of twos (par. 3-33).

EXTENDED ORDER, THE RIFLE PLATOON

(3) Platoon column (fig. 9).

(4) Line of squads (fig. 9).

(5) One rifle squad forward, two rifle squads back, automatic rifle squad in rear (fig. 9).

(6) Two rifle squads forward, center rifle squad back, automatic rifle squad in rear (fig. 9).

b. When the platoon is deployed, each squad may be in *Squad column*, *Squad wedge*, or *As skirmishers*.

15-22. *FRONTAGE*.—The platoon deploys with sufficient intervals between squads to permit minor maneuvers of squads. Unless otherwise directed, squad columns or squads disposed as a wedge keep about 50 yards apart. When deployed as skirmishers, adjacent squads deploy with about 20 yards interval between squads unless otherwise directed.

15-23. *POSTS OF LEADERS, GUIDE, MESSENGER, AND SCOUTS*.—The platoon leader and the second in command are not restricted to fixed posts. When moving forward, the platoon leader usually precedes his unit, the second in command follows in rear and assists in control. During forward or flank movements, the platoon leader is on the side of the platoon toward the enemy. During movements to the rear, he is on the side away from the enemy. When the platoon is halted in a firing position, he is in rear of his platoon. When otherwise halted, he is in front of his platoon. The second in command takes positions from which he can best assist the platoon leader in controlling the platoon. The platoon guide and the messenger join the platoon leader on deployment. When contact is imminent the platoon leader sends out scouts from the leading squads. No more scout pairs than are necessary to cover the front of the platoon will be used.

15-24. *PLATOON COLUMN*.—At the signal or command, the base squad moves out in squad column, followed in order by the right and left rifle squads, or in any other order indicated by the platoon leader. Usually the automatic rifle squad follows in rear.

15-25. *DEPLOY INTO SQUAD COLUMNS*.—*a. With squad columns in line*.—The command is: **SQUAD COLUMNS**. The base or leading squad moves in squad column to the front or in the direction indicated by the platoon leader. The other two rifle squads move in squad column to positions approximately 50 paces to the right and left of the base or leading squad at about 50 paces. Leaders

EXTENDED ORDER, THE RIFLE PLATOON

of the flank rifle squads guide on the base squad but make no effort to maintain exact alinement.

b. In squad columns with one rifle squad forward.—At the command **SQUAD COLUMNS**, the base (or designated) rifle squad moves in squad column to the front or in the direction indicated by the platoon leader, the other two rifle squads move in squad column to the right and left until about 50 paces apart and follow the base or leading squad at about 50 paces. The automatic rifle squad moves in squad column to a position in rear of the base squad and follows the two flank squads at about 50 paces. If the base squad is halted by the platoon leader, the other two rifle and the automatic rifle squads move to the rear if necessary to gain their positions (fig. 9).

c. In squad columns with one rifle squad back.—At the command **SQUAD COLUMNS, CENTER (OR DESIGNATED) RIFLE SQUAD BACK**, the other two rifle squads move in squad column to the right and left so as to march in the direction indicated by the platoon leader with about 50 paces interval. The center (or designated) rifle squad follows the leading squads in squad column at about 50 paces. The automatic rifle squad follows the center (or designated) rifle squad at about 50 paces. If the leading squads are halted by the platoon leader, the center (or designated) rifle squad and the automatic rifle squad move to the rear if necessary to gain their positions (fig. 9).

d. From column of threes or fours the center rifle squad is usually designated as the forward or rear squad. In other dispositions, the squad most conveniently located may be designated.

15-26. *TO DEPLOY THE PLATOON AS SKIRMISHERS.*—

a. The command is: AS SKIRMISHERS. The squads move out as indicated for squad columns (par. 15-25*a*) and deploy as skirmishers at the command of the squad leader as they reach their positions.

b. To deploy as skirmishers with one rifle squad forward (or back) command is: AS SKIRMISHERS, CENTER (OR OTHER) SQUAD FORWARD (OR BACK). The squads move out as indicated in paragraph 15-25*b* or *c*, deploying as skirmishers as they reach their positions.

15-27. *TO DEPLOY THE SQUADS AS SKIRMISHERS.*—The platoon being in squad columns, the platoon leader may deploy the squads as skirmishers by commanding: **AS SKIRMISHERS.** At this signal or command the squads deploy, retaining their relative positions within the platoon.

EXTENDED ORDER, THE RIFLE PLATOON

15-28. *TO ASSEMBLE THE PLATOON*.—To assemble the platoon, the leader signals or commands: **ASSEMBLE**, and points to the place where the assembly is to be made. The platoon assembles in column of threes.

15-29. *TO ADVANCE THE PLATOON*.—*a*. The leader, assisted by the second in command, directs the advance of the platoon. To advance individual squads, the platoon leader signals **Forward** to the squad leaders concerned, leaving the method of advance to them, or he may go to the squad leaders concerned or assemble them and give them direct oral orders for their advance. He may send the order by his second in command or messenger.

b. To cause the entire platoon to rush, the leader commands: **FOLLOW ME** and springs forward leading the platoon to the new position.

15-30. *ANTI-AIRCRAFT DEPLOYMENT*.—*a*. Being in column of threes, the automatic rifle squad in rear, at the command, **Plane(s) Front (Right, Left, or Rear)**, the right squad moves to the right at top speed. The leading and rear men of the right squad go about 10 paces and the center man about 50 paces. Other men of the right squad go to such distances that when halted the squad forms a rough semicircle. The left squad moves to the left in like manner. The men of the center squad take interval between the right and left squads, odd-numbered men to the left and even-numbered men to the right. The automatic rifle squad deploys to the right and left of the road by teams (fig. 10).

b. In deployments against air attack, men upon halting assume the antiaircraft firing position facing the approaching airplanes.

c. Being deployed to meet an air attack, if it is desired to continue the march without assembling on the road, squad columns are formed and the march continued **off** the road.

d. In a four-squad unit marching in column of fours, the same method is used. The two center squads deploy to the right and left.

e. In column of twos the same method is used, the right column deploying to the right and the left column deploying to the left.

EXTENDED ORDER, THE RIFLE PLATOON

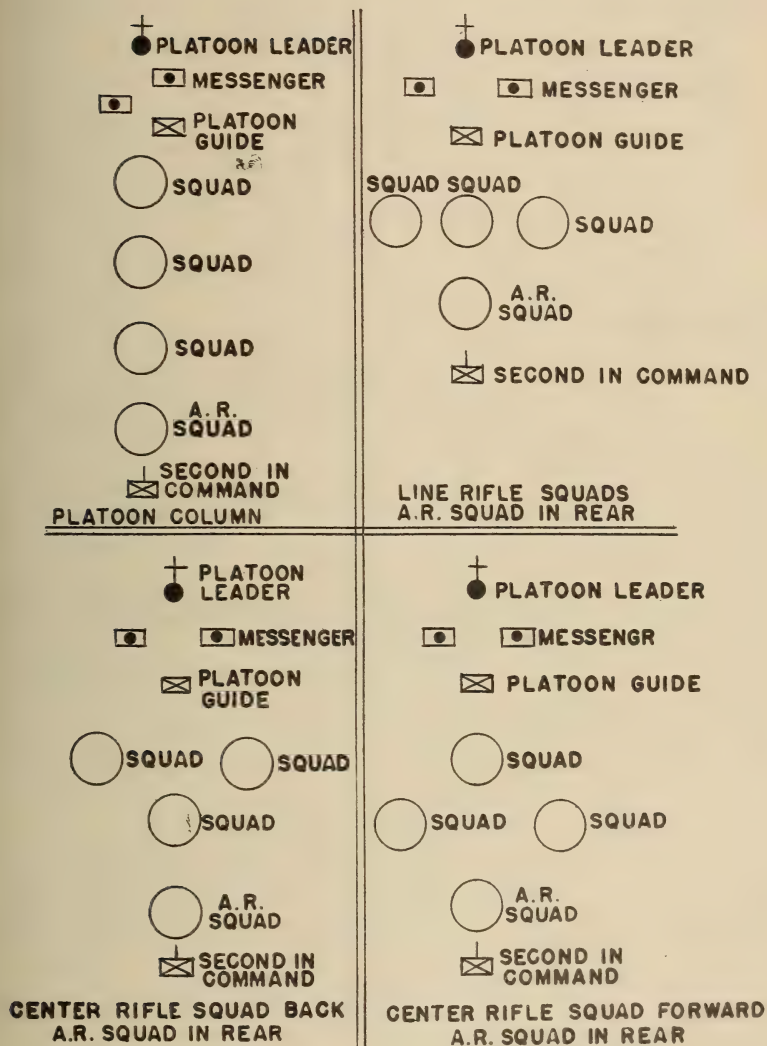


FIGURE 9.—Dispositions for the platoon, distances and intervals variable.

EXTENDED ORDER, THE RIFLE PLATOON

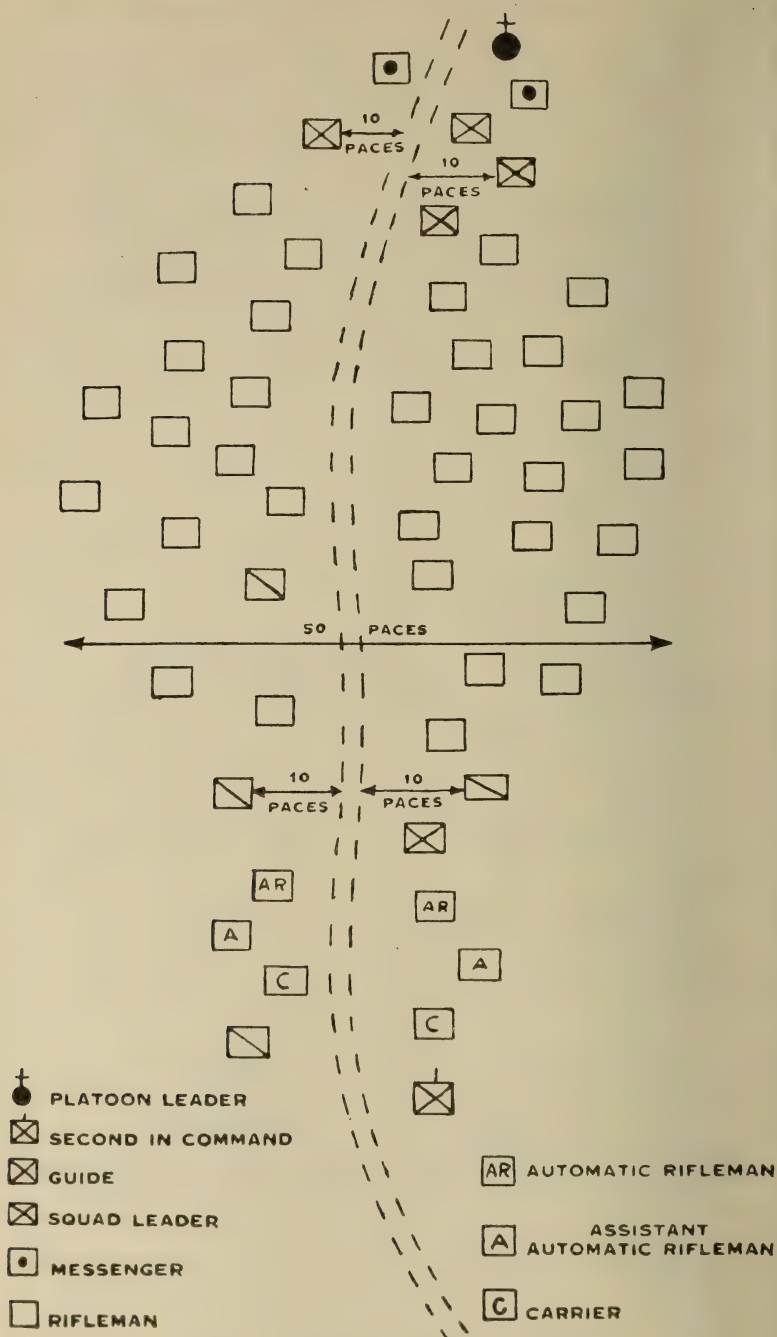


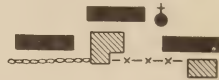
FIGURE 10.—Platoon antiaircraft deployment.

EXTENDED ORDER, THE RIFLE PLATOON

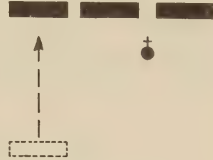
READ FIGURE FROM BOTTOM TO TOP

The platoon has assaulted with the bayonet and captured the enemy position.

It will reorganize and pursue the enemy or prepare a defensive position.

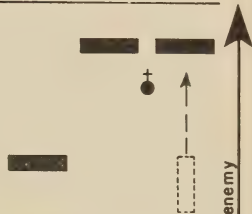


The firing line has gained its new position, and the support squad has been ordered to extend the firing line so as to increase its volume of fire preparatory to the assault.



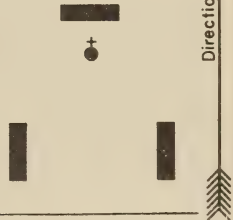
The right rear squad extended the firing line by infiltration which resulted in gaining fire superiority.

The platoon leader decided to advance by a platoon rush of about 50 yards.



Leading squad, when fired upon, deployed as skirmishers, thus establishing the firing line. Rear squads took cover.

The platoon leader decided to send the right rear squad forward and hold the other in support.



Advancing from line of departure. Triangular formation. Squad columns. Bayonets fixed.

A platoon messenger (not shown in diagram) is observing to the left and maintaining contact with the adjacent platoon.



Platoon under cover in rear of the line of departure (an unimproved road).

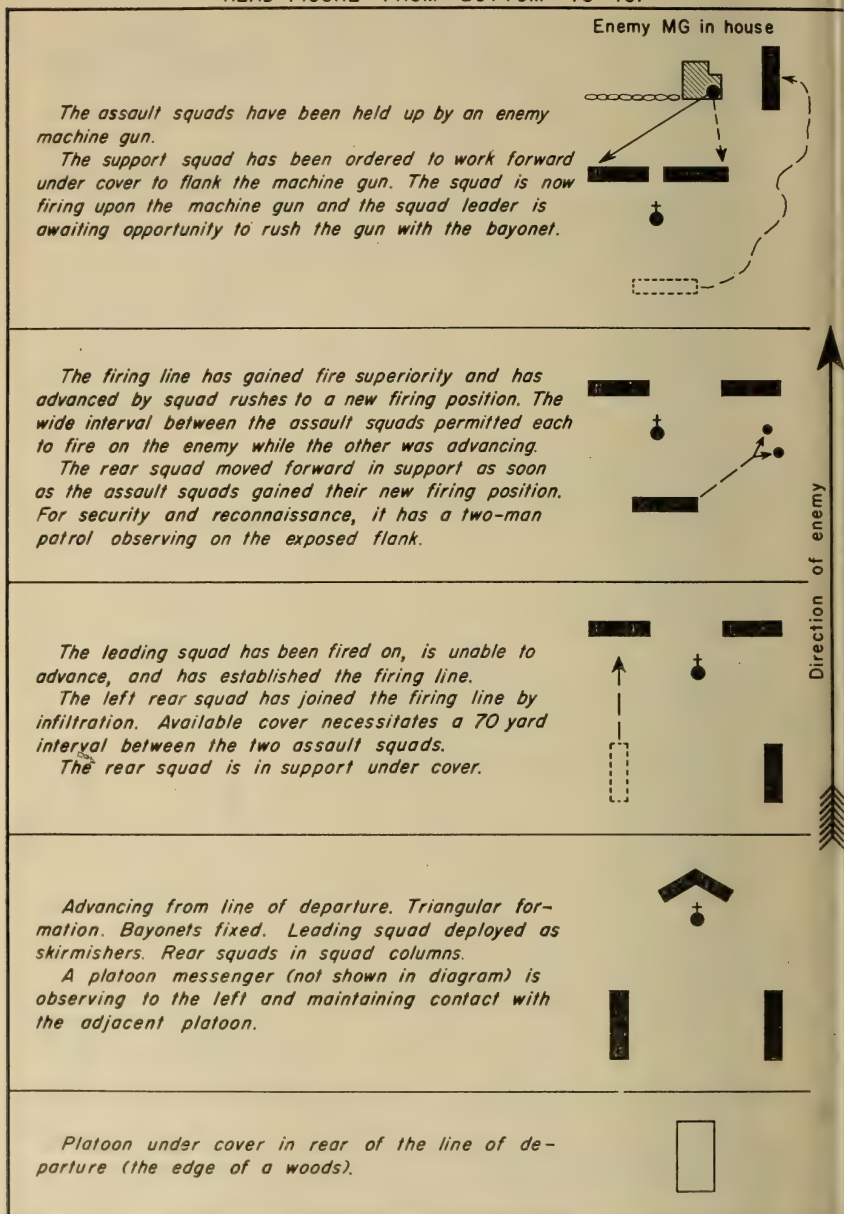


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FIGURE 11.—An example of a platoon, as a part of a larger force, advancing in the open against an enemy holding the outskirts of a town.

METHODS OF ATTACK

READ FIGURE FROM BOTTOM TO TOP



READ FIGURE FROM BOTTOM TO TOP

FIGURE 12.—An example of a platoon, as a part of a larger force, advancing in the open against an enemy holding a village.

SECTION VII

COMBAT PRINCIPLES, THE RIFLE PLATOON

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Reorganization	15-34	30
The pursuit	15-35	30
The platoon in defense	15-36	31
The support platoon in the attack	15-37	31
The support platoon in defense	15-38	32
Mopping-up	15-39	32
Connecting group	15-40	33

15-31. *ORDERS*.—*a*. After receiving his orders from the company commander and making a personal reconnaissance of the ground over which his platoon is to advance, the platoon leader assembles his petty officers and issues his orders. Whenever practicable, orders should be issued in the presence of the entire platoon.

b. During the course of the attack it may be necessary for the platoon leader to issue additional orders to cope with the various situations as they arise. For example:

(1) A platoon is advancing in triangular formation. The leading (assault) squad has been stopped on the forward slope of a ridge by hostile fire. Rear squads are under cover of the ridge, squad leaders near the crest watching for signals.

(2) The platoon leader sends a messenger to the squad leaders of the rear squads with the following orders: "Right squad, reinforce the firing line on the right. I will indicate enemy position and flanks with tracer ammunition—range five hundred. Left squad, support squad. Keep under cover and conform to movements of firing line. Keep sharp lookout on flanks. Signal when message is received and understood and right squad is ready to advance."

(3) A well trained intelligent messenger can transmit this order verbally. If there is any doubt, write it out and send it by the messenger.

15-32. *ADVANCING THE ATTACK*.—*a*. Except when it is necessary to go around impassable obstacles or areas, the platoon should not leave its assigned zone of action.

COMBAT PRINCIPLES, THE RIFLE PLATOON

b. Flanking movements.—The platoon is essentially an attack unit. Wide flanking movements by any part of the platoon are rarely justified. Maneuvering in the zone of an adjacent platoon is always dangerous. When such action becomes necessary, a messenger is sent to the leader of the platoon concerned with detailed information of the maneuver.

c. Assisting an adjacent platoon.—The best way for a platoon to assist an adjacent platoon which has been held up, is to push forward. When abreast the flank of the hostile resistance, conditions will determine whether the platoon should continue its advance or attack the flank of the hostile combat group which is holding up the friendly platoon.

15-33. *THE ASSAULT.*—*a. Description.*—The assault is the final phase of the attack to dislodge the enemy from his position with the bayonet or threat of the bayonet.

b. When delivered.—The assault is delivered at the earliest possible moment that promises success. This usually occurs when hostile fire has materially decreased and become less effective. (See figs. 11 and 12.)

15-34. *REORGANIZATION.*—As soon as a position has been taken, the platoon will be reorganized. To do this, the platoon leader will—

(1) Provide for the protection of the platoon (send scouts or several small groups to the front and flanks).

(2) Regain control of his squads.

(3) Appoint acting petty officers as necessary to replace casualties.

(4) Reorganize squads, if necessary (this may mean a reduction in the number of squads).

(5) Have ammunition redistributed (including that removed from casualties).

(6) Have prisoners sent to the rear.

15-35. *THE PURSUIT.*—*a.* When ordered in direct pursuit, the platoon continues to fire on the enemy as long as he is in sight, then reorganizes, if necessary, and advances rapidly to regain contact. The platoon must guard against getting so far ahead of the general line as to be in danger of isolation.

b. Pursuing forces must at all times be prepared for a counter-attack by the enemy. Normally the enemy will direct such counter-attacks against the flanks of the pursuing force, as they are particularly vulnerable. When necessary, flank guards should be thrown out to afford protection against such enemy action.

THE PLATOON IN DEFENSE

15-36. *THE PLATOON IN DEFENSE.*—*a.* A platoon sector (area) is organized for defense by establishing the platoon in it as one combat group or dividing the platoon into 2 or 3 combat groups, each separated by 50 to 150 yards. Normally it is desirable to place one combat group in support in rear of the firing line. The size and location of the groups will be considerably influenced by the availability of machine-gun support and whether or not the platoon sector is in the open, or in the streets or buildings of a city.

b. The platoon leader assigns a defense position to each group from which it has a clear field of fire to its front and flanks and, if practicable, the front and flanks of groups on its right and left.

c. When the defense positions have been indicated the combat groups are ordered to construct the defenses.

d. Positions for automatic rifles.—Automatic rifles are placed so as to cover the front and flanks of the platoon area. The best locations are on the flanks so as to provide for oblique fire without being visible from the front. The automatic rifles should also be able and ready to fire to the front, flanks, and rear of adjacent groups.

e. Obstacles.—The best type of hastily constructed obstacle is a concealed wire entanglement on the front and flanks placed at a distance beyond hand grenade range (about 50 yards). Obstacles are so placed that the ground in front of them may be enfiladed by automatic-rifle and machine-gun fire.

f. The counterattack.—Plans and instructions for counterattack are made and given by the company commander and platoon leaders. If the enemy penetrates the position, the support platoon of the company and the support squads (groups) of the platoons attack at once, preferably from the flank, and without orders. Troops which have just captured a position are disorganized and may be driven out by a quick rush with the bayonet, even though the enemy is in superior numbers. Supports play the most important role in successful counterattacks.

15-37. *THE SUPPORT PLATOON IN THE ATTACK.*—*a.* Normally when a company with a three-platoon organization is distributed in depth for an attack, one platoon, called the support platoon, is held out as the company support.

b. Distance from assault echelon.—The leader of a support platoon is usually informed of the distance his unit is to follow the assault echelon (assault platoons). This will vary from 100 to 200 yards. These limits provide the normal variations of distance depending on conditions, but are not to be followed blindly.

COMBAT PRINCIPLES, THE RIFLE PLATOON

c. The leader of the support platoon maintains contact with the assault platoons. He usually employs messengers or scouts for this purpose.

d. The support platoon leader is responsible at all times for protection of his flanks.

e. *Usual missions of a support platoon.*—The support platoon is the maneuver element of the company. The most usual missions which will be given it are:

- (1) To reinforce the assault echelon (the assault platoons).
- (2) To occupy gaps in the line.
- (3) To provide security for the flanks of the assault platoons.
- (4) To assist adjacent units which are held up.
- (5) To cover the reorganization of the assault echelon.
- (6) To relieve a platoon of the assault echelon.
- (7) To mop-up a captured position.

f. Except under most unusual circumstances, such as a surprise attack on the flank of the assault echelon, the support platoon is held in readiness for orders from the company commander.

g. The platoon leader acts without orders when confronted with an unforeseen situation requiring immediate action. In so doing, he assumes full responsibility.

15-38. *THE SUPPORT PLATOON IN DEFENSE.*—When on the defensive, a company with a three-platoon organization may place two of its platoons in the firing line and hold out one as company support. This support platoon is placed in a position in rear of the platoons in the firing line. In general, the support platoon assists the platoon in the firing line as prescribed for a support platoon in the attack. It is particularly effective for making counterattacks.

15-39. *MOPPING-UP.*—a. To mop-up or clean-up means to put out of action any of the enemy left in the defensive position which has been, or is being taken. Those who surrender are taken as prisoners, those who resist are shot.

b. A platoon assigned the mopping-up mission generally will be ordered to follow the unit which is to capture a defended position, thus enabling the assault unit to continue the advance promptly without halting to mop-up.

c. While mopping-up, members of a squad enter a trench, shelter, or building only to clean it out or to take cover when forced to do so by enemy fire.

d. All buildings, shelters, observation posts, and other possible hiding places for the enemy must be thoroughly cleaned out.

CONNECTING GROUP

e. Members of a platoon assigned as moppers-up are not permitted to go beyond the position to be mopped-up nor to mingle with attacking troops.

f. Units on this duty must work rapidly in order that the entire platoon may quickly be made available for further service.

15-40. *CONNECTING GROUP.*—*a.* Platoons must maintain contact with adjacent platoons. This is done by sending out a connecting group to maintain contact with the platoon concerned or by detailing one man, usually a scout or messenger, to observe to the flank concerned. A connecting group between two platoons usually consists of a two-man patrol.

b. The connecting group should operate so that it knows at all time the location of its own unit and the adjacent unit with which it is required to keep in contact. It does not fight except in self defense or to give warning of a flank attack.

c. Should contact with the adjacent unit be lost, the connecting group will immediately notify the commander of the unit to which it belongs and, unless otherwise directed, remain out as a flank combat patrol.

SECTION VIII

COMPANY

	Par.	Page
General-----	15-41	35

15-41. *GENERAL*.—The company does not execute extended order movements by any special signals or commands. The platoons are usually disposed and maneuver as directed by the company commander. Such directions are usually given in the form of oral combat orders. Commands analogous to those prescribed for the platoon may be used when appropriate.

SECTION IX

WEAPONS SQUADS, SECTIONS, AND PLATOONS

(See Ch. 5, Cart Drill)

	Par.	Page
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15-42. *SQUAD*.—*a. General*.—Weapons squads represent teams serving a single weapon (machine gun, mortar, or antitank gun). Therefore the deployment of weapons squads is limited to taking up a dispersed formation to prevent casualties when moving. When firing, the crew is at the weapon. Carriers bearing ammunition operate between the ammunition vehicle and the weapon. The usual deployment for weapons squads is therefore an irregular column. When desired, a formation similar to that of adjacent units may be prescribed. Specific instructions for the organization, duties, and equipment of crews are given in drills for the particular weapon. Movements prescribed in this section are executed while at ease, and at a walk unless otherwise directed.

b. Duties of squad leader.—The squad is deployed and led by its leader. During movement, his usual position is at the head of his squad. It is his duty to watch his section leader for signals and to lead his squad in the assigned direction, controlling the movements of his men to insure the skillful use of ground and cover. When resuming the advance after a halt, he will make sure that all members of the squad have understood the order to move forward. In case of casualties, he will prescribe such redistribution of the loads of members of the squad as will insure the arrival at the next firing position of all equipment necessary for the immediate opening of fire.

c. Squad column with transportation.—At the command **SQUAD COLUMN**, the squad forms in a single file in rear of its transportation. The distance between men is 5 paces unless otherwise directed. This is varied to meet existing conditions.

d. Squad column without transportation.—(1) The squad leader directs: **OFF CARTS**. Each man takes the equipment as prescribed in the drill for the weapon and forms in numerical order in single file on the right of the cart unless otherwise directed.

(2) When equipment is removed, the squad leader directs: **SQUAD COLUMN**. The men form in an irregular column behind the squad leader.

WEAPONS SQUADS, SECTIONS, AND PLATOONS

e. Maneuver squad.—(1) The squad leader commands: **FOLLOW ME**. The squad follows its leader in squad column.

(2) If the weapon has been taken from the cart, the cart is placed under cover.

f. Halt squad.—At the signal or command **HALT**, all men seek the nearest cover. The transportation takes advantage of any convenient concealment or cover. All watch the squad leader for further orders or signals.

g. Load transportation.—The squad leader calls or sends for the transportation, halting it under cover (if available) near the squad. At the command **ON CARTS** the squad assembles at the transportation, loads its equipment, and forms squad column.

15-43. *SECTION.*—*a. Duties of section leader.*—The section is deployed and led by its leader. During movement he occupies no fixed position, but generally he will be in advance of his unit. When leading his section, he selects routes of advance and reconnoiters for gun positions and targets. When the section is halted in a firing position, he places himself where he can best control its fire, usually in rear of and between his weapons. When otherwise halted, he is usually in front of his section. He keeps in touch with the platoon leader at all times.

b. Dispositions.—The section may be disposed in line of squad columns or in section column.

(1) The commands for these dispositions are: **LINE OF SQUAD COLUMNS 50 (or other) PACES, or SECTION COLUMN 20 (or other) PACES**. Each squad leader leads his squad so as to take the disposition directed.

(2) To maneuver without transportation, the section leader first gives the necessary commands to unload transportation, and after it is unloaded gives the command for the disposition desired. The transportation takes cover or moves as directed.

c. Assemble.—To assemble the section, the section leader takes post at or designates the point at which the section is to assemble and commands or signals: **ASSEMBLE**. Each squad leader assembles his squad, moves it to the point of assembly, and forms as directed.

15-44. *PLATOON.*—*a. Duties of platoon leader.*—The platoon leader does not remain in a fixed position with respect to his unit, but goes wherever his presence is required. During movement, he is generally on the side toward the enemy. When the platoon is in action, he occupies a position from which he can observe the effect of fire and from which he can control his sections. The platoon leader

WEAPONS SQUADS, SECTIONS, AND PLATOONS

deploys the platoon and directs the advance of and assigns firing positions to his sections.

b. Duties of platoon sergeant.—The platoon sergeant is the second in command. He commands the platoon when the leader goes ahead on reconnaissance. When the platoon commander is within such distance of his unit as to be able to control its advance, the platoon sergeant follows in rear of the platoon during movement and insures its orderly advance.

c. Duties of corporal agent.—When the platoon is deployed, the messengers are formed as a group under command of the corporal agent. The corporal agent conducts this group at the head of the platoon, unless otherwise directed, conforming to the disposition of its other elements.

d. Dispositions.—The platoon deploys in the same manner as the squad and section. The section may be disposed in platoon column, line of sections, or antiaircraft deployment. The dispositions, intervals, and distances will depend upon the requirements of the tactical situation, the nature of the ground, and the fire of the enemy. Each section leader disposes of his squad so as to make the maximum use of cover. The dispositions, intervals, and distances may be changed from time to time during the advance, both in the platoon and in the section. The antiaircraft disposition is generally similar to that given for the rifle platoon in paragraph 15-30. Carts clear the road and stop under available cover.

e. Line of sections.—At the signal or command, **LINE OF SECTIONS**, the leading or right section moves straight to the front or in the designated direction. The other section moves to the left and forward until the required interval has been gained and the section is on line with the base section. If no interval is announced, the platoon will deploy with 75 paces between sections.

f. Platoon column.—At the signal or command, **PLATOON COLUMN**, one section follows the other in column as indicated by the platoon leader.

g. Assembly.—To assemble the platoon from any disposition the platoon leader takes post at or designates the point at which the platoon is to assemble and signals or commands: **ASSEMBLE**. At this signal or command, each section leader assembles his section and conducts it to the point of assembly. The platoon is then assembled in column of fours or as directed. The sections of a platoon can be assembled by the commands:

1. **BY SECTIONS**, 2. **ASSEMBLE**.

SECTION X

COMBAT SIGNALS

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15-45. *PURPOSE OF SIGNALS.*—Combat signals are used for transmitting commands in a simpler, more direct, and more efficient manner than would be possible by the use of the voice.

15-46. *KINDS.*—Signal may be audible or visible as prescribed herein.

a. Subordinate commanders repeat signals or give appropriate orders to their units whenever necessary to insure prompt and correct execution.

b. *Standard signal for use by ground troops to warn of air or mechanized danger.*—The following signals will be used by observers of all arms and services in transmitting warning of the approach or presence of hostile aircraft or mechanized vehicles:

Three long blasts of a whistle, vehicular horn, siren, or klaxon repeated several times; or three equally spaced shots with rifle or pistol; or three short bursts of fire from machine gun or submachine gun. In daylight, the individual giving the signal points in the direction of the impending danger; at night, the alarm signal will be supplemented by voice warning to indicate the direction of danger.

15-47. *GENERAL INSTRUCTION FOR MAKING ARM-AND-HAND SIGNALS.*—*a.* When possible, signals will begin with the hand at the side and will be completed by it returned to that position.

b. If any movement is to be executed by an element of a command, the first part of the signal designates the element and is followed by the signal for the movement. For example, see par. 15-43 *k.*

c. Whenever practicable, a second signal should not be given before the first one has been executed.

15-48. *WHISTLE SIGNALS.*—*a.* *Attention to orders.*—(1) Sound a short blast of the whistle. This signal is used to fix the attention of troops, or of their commanders and leaders, preparatory to giving commands, orders, or signals.

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(2) At the short blast of a whistle, squad leaders in charge of portions of the firing line will fix their attention upon their leader. If the signal was given by the commander of some other unit, or if no orders or commands are given by their own leader, they will at once return full attention to their own squad or group.

b. Cease firing.—Sound a long blast of the whistle. This signal will be confirmed at once by an arm-and-hand signal (cease firing) or by other means.

c. Air or tank warning.—Sound three long blasts, and repeat several times.

d. Limitation of whistle signals.—Whistle signals other than those stated above are prohibited.

15-49. *ARM-AND-HAND SIGNALS.*—*a. Forward; By the right (left) flank; To the rear.*—Face and move in the desired direction of march; at the same time extend the hand vertically to the full extent of the arm, palm to the front, and lower the arm and hand in the direction of movement until horizontal.

b. Halt.—Carry the hand to the shoulder, palm to the front; then thrust the hand upward vertically to the full extent of the arm and hold it in that position until the signal is understood.

c. Lie down; or, Take cover.—Turn toward the unit or group and raise the hand, palm down, in front of the elbow, forearm horizontal; thrust the hand downward and back to this position several times, holding the wrist rigid.

d. Double time; or, Rush.—Carry the hand to the shoulder, fist closed; thrust the fist upward vertically to the full extent of the arm and back to the shoulder and repeat rapidly several times.

e. As skirmishers.—Raise both arms laterally until horizontal, arms and hands extended, palms down. If it is necessary to indicate direction of march, signal **Forward**, moving at the same time in the desired direction.

f. Assemble.—Raise the hand vertically to the full extent of the arm, fingers extended and joined, and describe large horizontal circles with the arm and hand.

g. I am ready.—Extend the arm toward the leader for whom the signal is intended, hand raised, fingers extended and joined, palm toward the leader.

h. Commence firing.—Extend the arm and hand horizontally in front of the body to their full extent, palm of the hand down; move them several times through a wide horizontal arc.

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i. Cease firing.—Raise the forearm in front of the forehead, palm to the front, and swing it up and down several times in front of the face. Accompany this with the whistle signal.

j. Squad.—Extend the hand and arm toward the squad leader, palm of the hand down; distinctly move the hand up and down several times from the wrist, holding the arm steady.

k. Squad column.—Execute the signal for **squad**; drop the arm and hand to the side and immediately swing them, extended, in a pendulum movement straight to front, not higher than the shoulder, and back again to the side.

l. Section.—Extend one arm toward the section leader, palm of the hand down and describe large vertical circles.

m. Platoon.—Extend both arms toward the platoon leader, palms of the hands down and describe large vertical circles.

n. Wedge formation.—Raise both arms vertical overhead, palms inward and in contact with each other.

o. Leaders join me.—Extend an arm toward the leaders and beckon the leaders to you.

p. Fix bayonet.—Simulate the movement of the right hand in executing **fix bayonet**.

q. Enemy in sight.—Hold the weapon horizontally above the head with the arm or arms extended as if guarding the head.

r. Quick time (walk).—Raise the elbow to a position above and to the right (left) of the shoulder and extend the forearm to the left (right), hand above the head, palm to the front. This signal is also used to decrease gait or speed.

s. Change direction.—Carry the hand that is on the side toward the new direction across the body to the opposite shoulder and, with the palm down and the forearm horizontal swing the forearm in a horizontal plane, extending the arm and hand to point in the new direction.

t. As skirmishers, right (left).—Raise both arms laterally until horizontal, arms and hands extended, palms down; swing the arm and hand on the side toward which the deployment is to be made, upward until vertical and back immediately to the horizontal position; repeat swinging movement several times; hold the other arm and hand steadily in the horizontal position until the signal is completed.

u. Are you ready.—Execute the signal **I am ready**.

v. Fire faster.—Execute rapidly the signal **Commence firing**. For machine guns, a change to the next higher rate of fire is required.

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w. Fire slower.—Execute slowly the signal **Commence firing**. For machine guns, a change to the next lower rate of fire is required.

15-50. **ADDITIONAL ARM AND HAND SIGNALS FOR WEAPONS UNITS.**—*a. Action and out of action.*—(1) *Action.*—Thrust the fist several times in the direction toward which it is desired to go into action.

(2) *Out of action.*—Strike the closed fist of one hand rapidly against the open palm of the other several times.

b. Elevate; depress.—Extend one arm toward the gunner(s) concerned; move the hand in short upward (downward) movements by flexing the hand at the wrist; with the palm of the hand toward the gunner(s), expose one finger for each mil the gun is to be elevated (depressed).

c. Shift right (left).—Extend one arm toward the gunner(s) concerned; swing the hand and arm horizontally in the direction in which the fire is to be shifted, palm turned in that direction; with the palm of the hand toward the gunner(s), expose one finger for each mil the fire is to be shifted.

d. Off carts.—Face the unit for which the signal is intended; raise the elbow laterally the height of the shoulder and touch the shoulder with the fingers.

e. On carts.—Face the unit for which the signal is intended, raise both elbows laterally to height of the shoulders and touch the shoulders with the fingers.

f. Fire one round.—Extend one arm above the head toward the gunner for whom the signal is intended. Cut the hand sharply downward.

g. Fire five rounds.—Extend one arm above the head, hand open; flex the wrist, making a quick, choppy, lateral movement with the hand.

h. Range; or change elevation.—Extend the arm fully toward the leader or men for whom the signal is intended, with the fist closed. This is the signal for battle sight. Open the fist, exposing one finger for each 100 yards of range. Change elevation by indicating the complete new range.

i. Traversing fire.—Face the target, extend one arm fully to the front; move it upward and downward with a chopping motion, and at the same time swinging the arm to the right (left) in the direction it is desired to distribute the fire.

LANDING-FORCE MANUAL

UNITED STATES NAVY

1938



CHAPTER 16

TACTICS AND TECHNIQUE OF THE RIFLE COMPANY AND INFANTRY BATTALION REGIMENT, AND BRIGADE

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FOREWORD

The Landing-Force Manual, U. S. Navy, 1938, is published in nineteen chapters as follows:

- CHAPTER 1. INTRODUCTION.
- CHAPTER 2. INDIVIDUAL INSTRUCTION WITHOUT ARMS AND WITH ARMS (RIFLE, AUTOMATIC RIFLE, SUBMACHINE GUN, PISTOL, AND BAYONET).
- CHAPTER 3. DRILL, THE SQUAD, PLATOON, AND COMPANY.
- CHAPTER 4. FORMATIONS OF THE BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 5. CART DRILL.
- CHAPTER 6. DRILL, MACHINE GUN, CALIBER .30.
- CHAPTER 7. DRILL, THE SPECIAL-WEAPONS PLATOON (37-MM GUN AND 81-MM MORTAR).
- CHAPTER 8. DRILL, ARTILLERY.
- CHAPTER 9. THE INFANTRY PACK, AND DISPLAY OF EQUIPMENT AND CLOTHING.
- CHAPTER 10. CEREMONIES; AND MANUAL OF THE COLOR, SWORD, AND GUIDON.
- CHAPTER 11. INTERIOR GUARD DUTY AND GUARD MOUNTING.
- CHAPTER 12. MARCHES, SECURITY ON THE MARCH, AND OUTPOSTS.
- CHAPTER 13. TENT DRILL AND SHELTER.
- CHAPTER 14. FIELD SANITATION, PERSONAL HYGIENE, AND FIRST AID.
- CHAPTER 15. EXTENDED-ORDER EXERCISES, COMBAT PRINCIPLES OF THE RIFLE SQUAD AND PLATOON, AND COMBAT SIGNALS.
- CHAPTER 16. TACTICS AND TECHNIQUE OF THE RIFLE COMPANY AND INFANTRY BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 17. THE DEFENSE AND ATTACK OF CITIES, RIOT DUTY, AND NATIONAL DISASTERS.
- CHAPTER 18. PHYSICAL DRILL.
- CHAPTER 19. SMALL ARMS MARKSMANSHIP.

LANDING-FORCE MANUAL

UNITED STATES NAVY

CHAPTER 16

TACTICS AND TECHNIQUE OF THE RIFLE COMPANY AND INFANTRY BATTALION, REGIMENT, AND BRIGADE

NOTE.—For additional information covering this subject, reference should be made to Infantry Field Manual, FM 7-5, and to Field Service Regulations, FM 100-5.

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SECTION I

SCOPE

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16-1. *SCOPE*.—*a*. The instructions contained in this chapter are limited to those considered necessary for the successful employment of ships' landing forces in combat.

b. When any particular feature of combat has general application it is described for one unit and reference made to the others, or it is covered under a general heading. For example; attack formations are covered under a single heading instead of being separately described for a company or battalion.

c. In many instances the subject is described from the viewpoint of the attacker or defender, but has application to the other side to indicate the means to be employed in successful defense or attack. For example; in describing the execution of an attack by the envelopment of a hostile flank, information is furnished which should enable the defender to successfully oppose such maneuver.

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OFFENSIVE COMBAT, GENERAL

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16-2. *THE FUNDAMENTALS OF OFFENSIVE COMBAT.*—

They are:

- (1) Only the offensive produces decisive results.
- (2) Security is necessary at all times.
- (3) Reconnaissance should be continuous.
- (4) Mutual support and cooperation between units increase the chance of success.
- (5) A reserve should not be committed to action during the initial stage of the attack.
- (6) Surprise is always important, and in most situations is essential for success in attack.
- (7) Offensive combat is conducted by a combination of fire and movement.
- (8) An advantage gained should never be relinquished.
- (9) Endurance and tenacity of purpose are essential.
- (10) Simple and direct methods have the best chance of success.
- (11) Unity of command must be maintained (squads, companies, etc., should be kept intact).
- (12) Maintenance of direction in attack is necessary.
- (13) Liaison with adjacent units must be continuous.
- (14) Commanders must keep their seniors and subordinates informed of the situation.
- (15) Supporting weapons (artillery, machine guns, mortars, 37-mm guns, aircraft, etc.) are used to conserve manpower, assist in advancing the attack, and to strengthen the defense.

OFFENSIVE COMBAT, GENERAL

(16) An enemy should be attacked in superior force where he is weak (the main effort), and held immobile by relatively inferior forces where he is strong (the holding attack).

(17) The task both of your own unit and of the force as a whole should be kept constantly in mind.

16-3. *THE OFFENSIVE*.—*a*. The offensive must be taken if decisive results are to be obtained. A defensive role should be assumed only when necessary to prepare for an offensive.

b. In taking the offensive, a command has the advantage of freedom in planning and execution, the ability to concentrate and strike with a superior force at a predetermined time and place. On the other hand, an enemy on the defensive must be prepared to resist at all points and his plan of action is largely restricted and controlled by his opponent.

16-4. *SECURITY*.—*a*. To be surprised at effective ranges is an unpardonable offense. Appropriate measures including constant reconnaissance and the intelligent employment of adequate security detachments are necessary.

b. The commander of a unit regardless of its size is responsible for its security except the commanders of the lesser included units of the main body in column of route, not assigned duty relating to reconnaissance or security.

c. Security detachments must be sent to the front and flanks, and contact must be maintained with leading and adjacent units. The flanks are its most vulnerable parts and must be protected.

d. For security on the march and outposts, see chapter 12.

16-5. *RECONNAISSANCE*.—*a*. Reconnaissance is the search for and securing of information about the enemy and the terrain. It is made by a personal visit; by observation from a distance, or determined from reports of patrols and observers. It is by means of continuous reconnaissance that a commander can ascertain the situation. Normally, proper reconnaissance will prevent surprise.

b. Reconnaissance is necessary prior to an attack to determine the enemy's position; his disposition and movements; the location of his flanks; the character of the terrain; and the nature of the hostile field works. Reconnaissance detachments must guard against being drawn into a fight except when it is necessary to gain or transmit important information.

16-6. *MUTUAL SUPPORT*.—*a*. One of the chief requisites of success is mutual support. Normally, in the attack, support is best

RESERVES AND SUPPORTS IN THE ATTACK

rendered to an adjacent unit by advancing the attack as far as possible, outflanking and thereby weakening hostile resistance which may be holding up an adjacent unit. If necessary, the reserve of the unit which has been held up by enemy resistance may be directed to attack the hostile flank. Normally, in the defense mutual support is rendered by delivery of automatic fire across the fronts of adjacent units during the final phase of the hostile assault. In both the attack and defense local reserves may be used effectively in rendering support to adjacent units.

16-7. *RESERVES AND SUPPORTS IN THE ATTACK* (see figs. 6, 7, and 8).—*a.* A battalion or larger force holds out a reserve. The corresponding element held out by a platoon or company is called a support. The principles governing the conduct and employment of the support of a platoon and company are included in chapter 15 and are based on those described herein for reserves. Hence, the word “reserve” as used in this paragraph will be understood to include “support.”

b. Adequate reserves are withheld during the initial stages of combat in order to provide means for influencing the later course of action. The reserve must be large if there be many contingencies which may have to be met, if a prolonged battle is expected, or the situation is obscure.

c. Reserves are so located as to facilitate movement to critical points in time to accomplish the desired results. If too far away, valuable time is lost; if too close, they suffer unnecessary casualties, become merged with the assault echelon or involved in local actions, and lack maneuver space.

d. The reserve is moved forward by bounds from one position to another or from cover to cover. Normally, the commander of the whole force orders such movements, designating the new location.

e. It is generally desirable for the commander of the whole force to keep the commander of the reserve with him in order that the latter may be continuously informed of the situation and thus be better prepared to carry out orders.

f. In deciding to engage his reserve, the commander of the whole force must realize that one of his principal means of influencing the action will not be available for further employment. Nevertheless, at the decisive moment, the entire reserve must be engaged without hesitation. Piecemeal employment (sending men in by dribbles) is undesirable.

OFFENSIVE COMBAT, GENERAL

g. The reserve is generally put into action where the progress of the attack has been the greatest. This will generally coincide with the zone of action where minimum losses are being suffered; in other words, at the enemy's weakest or most vulnerable point.

h. The commander of the reserve, on his own initiative, assists adjacent units by fire, covers the flanks, and repels counterattacks. Except in an emergency he does not, without proper orders, commit it to any action or maneuver which would result in its loss of control by the commander of the whole force.

i. Against counterattacks, a reserve is most effective when launched against the enemy's flank while the counterattack is in full progress.

j. After committing the reserve to action, commanders always endeavor to organize new reserves from troops which become available, generally from those relieved from the assault echelon.

k. The reserve of an attacking force may be assigned any of the following missions:

(1) To cover the flanks of the assault echelon. (By the employment of flank patrols and by fire of supporting weapons.)

(2) To repel counterattacks, especially those directed against the flanks of the attacking force.

(3) To assist the advance of the assault echelon by supporting fires.

(4) To assist adjacent units which are held up. (By maneuver against the hostile flanks and by supporting fires.)

(5) To take over the role of all, or a part of the assault echelon.

(6) To reinforce the assault echelon. (By extending the line on a flank; by maneuvering so as to envelop the hostile flank; or by entering the firing line and thereby increasing its density.)

(7) To fill gaps in the line, particularly between the assault echelons of adjacent units.

(8) To deliver the decisive blow of the attack.

(9) To provide connecting groups or observers to maintain contact with adjacent units.

(10) To shift or correct the direction of attack.

(11) To pursue.

(12) To reorganize and hold captured positions.

(13) To mop up a captured position.

(14) To cover the reorganization of the assault echelon.

(15) To cover withdrawal.

16-8. *SURPRISE*.—In all operations, surprise is of major importance and should be striven for constantly. It is attained by con-

ADVANTAGES GAINED

cealment of the strength of the forces engaged, their rapidity of movement, and the time, place, and direction of their attack. Concealment of where the main effort is to be made permits the concentration of superior forces against inferior resistance which enable the offensive to gain important objectives before the enemy can move reserves to meet the blow.

16-9. *ADVANTAGES GAINED.*—*a.* When the attack is successful, all commanders should exploit the advantage gained by the employment of their supports and local reserves.

b. When an attack fails, the assault echelons must dig in and hold their ground. Withdrawal always results in serious losses unless covered by darkness, smoke, or fog.

16-10. *LIAISON WITH ADJACENT UNITS.*—Infantry commanders establish and maintain contact with units on their flanks. To insure mutual support, intelligent action, and teamwork, all must be kept informed of the plans of their commander and of those of adjacent elements, as well as a knowledge of what has been done.

16-11. *INFORMATION.*—Higher and subordinate commanders must be kept informed of the situation, and every means employed to secure a continuous flow of information to them.

16-12. *NIGHT ATTACKS.*—Operations conducted at night or in heavy fog require special training. The principal requisites for a successful night attack are: Superior training and morale, maintenance of direction, excellent control of the troops, and surprise.

SECTION III

SUCCESSIVE STEPS OF THE OFFENSIVE

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16-13. *THE VARIOUS STEPS AND THEIR SEQUENCE.*—*a.*

In offensive combat all infantry units pass through certain successive steps. These steps in their usual order of sequence are (see fig. 1):

(1) The advance in route column, and development (partial deployment).

(2) Movement into assembly areas.

(3) The approach march, and complete deployment.

(4) Advancing the attack (fire and movement).

(5) The assault.

(6) Reorganization.

(7) Pursuit, or organization of the ground for defense.

b. It is not essential that all elements of a command pass through the various phases simultaneously nor do units necessarily complete one phase before taking up the next. The line of demarkation between certain phases may be vague, units passing from one to another without marked changes in disposition.

c. Reconnaissance and security are continuous during all the steps of the offensive.

16-14. *THE ADVANCE IN ROUTE COLUMN, AND DEVELOPMENT (PARTIAL DEPLOYMENT).*—*a.* An infantry unit begins an offensive by advancing toward the enemy in column of threes (or fours), preceded by such security and reconnaissance detachments (advance guard, flank guards, etc.) as are required by the situation. This is called the advance in route column.

SUCCESSIVE STEPS OF THE OFFENSIVE

6. The main body is kept in column of threes (or fours) as long as it is safe to do so as this formation is best for marching and for control by the leaders. Large bodies of troops in a single column take a long time to develop for action. Accordingly, large units are broken up into several parallel columns which keep in touch with each other and which execute necessary reconnaissance and security measures. This breaking up into several columns usually takes place gradually, and is called **development**. Regiments break into battalions and battalions into companies, each remaining in route column until it becomes necessary for platoons to deploy and take the formations described in extended order exercises for the squad and platoon.

NOTE.—The term “Partial deployment” as used in this text means any degree of deployment short of that required for engaging in the fire fight. When a column partially deploys it opens out with its subdivisions in a line of columns separated by such intervals as may be necessary for further deployment. The leading element of each column may or may not be completely deployed, depending upon the requirements of security (advance guard, etc.).

16-15. *MOVEMENT INTO ASSEMBLY AREAS.*—*a.* Prior to attack, and if time permits, each battalion and, in some instances, each company, is marched to a place affording cover and concealment in rear of the line of departure where it assembles and completes final preparations for the attack. This place is called the battalion (or company) assembly area.

b. Preparations completed in the assembly area may include:

(1) The commander receives the attack order from his superior, makes his reconnaissance, and issues his attack order.

(2) Rolls are removed from the packs, stacked by companies and left under guard.

(3) A munitions distributing point is established.

(4) Arrangements are made to have the rear echelon of the headquarters unit maintain the chain of supply.

c. Whether the battalion or company advances from its assembly area in route column or in an approach march formation depends upon the proximity of the enemy.

d. When the situation permits, units may advance in route column to the line from which the attack will be launched (line of departure) without movement into assembly areas.

16-16. *THE APPROACH MARCH AND COMPLETE DEPLOYMENT.*—*a.* The approach march is the advance from the point where the zone of hostile fire, usually long-range rifle and ma-

ADVANCING THE ATTACK (FIRE AND MOVEMENT)

chine-gun fire, is entered to the point where it becomes necessary to return the enemy's fire in order to continue the advance without undue losses.

b. After entering the zone of hostile fire, infantry ordinarily advances a long distance before it is justified in opening fire. Infantry is at a disadvantage if it attempts to reply to the enemy's long-range rifle and machine-gun fire. It also disregards hostile artillery fire and high-flying airplanes (carrying bombs); and, by taking full advantage of cover and of suitable formations, continues to advance rapidly until within effective range of the enemy's infantry. Protection against low-flying airplanes is provided by taking suitable formations and by antiaircraft fire of machine guns and rifle units.

NOTE.—It is not contemplated that ship's landing forces will normally be opposed by hostile artillery or aviation, other than a few pieces of artillery (probably of an obsolescent type), and a few airplanes. Ship's landing forces also have some artillery, and aviation support can be provided by the Fleet if required. Hostile artillery and airplanes will normally not be as effective or as important as enemy rifle and automatic weapons, particularly the latter, which are often well concealed and skillfully served.

c. Rapid advance and the utilization of cover are not in themselves sufficient protection against long-range rifle and machine-gun fire. Infantry units must change their formation so that concentrated targets will not be offered to the enemy's fire and so that the troops will be suitably disposed to take up the fire fight when they reach a point within effective range. The approach march formation is one in which the rifle platoons are partially deployed with each squad in squad column. When the deployment is completed, the leading (assault) platoons are able to open fire immediately without change of formation. The platoon in the approach march formation and when deployed, is discussed in detail in chapter 15; see also figures 1, 7, and 8 of this chapter.

d. As a rule, a zone of advance with definite limits is assigned to each unit before taking up the approach march. The width of the zone of advance or the frontage assigned determines the proper disposition of the component parts of each unit. For methods of designating a zone of advance, see par. 16-34.

16-17. *ADVANCING THE ATTACK (FIRE AND MOVEMENT).*—*a.* When hostile fire makes it necessary to return the enemy's fire, the advance by fire and movement is begun. This is called advancing the attack.

b. At the first firing position each attacking unit seeks to gain fire superiority in its zone of action. It is obtained by subjecting

SUCCESSIVE STEPS OF THE OFFENSIVE

the enemy to such a heavy, accurate fire that his own becomes inaccurate or diminishes in volume to such extent as to make it ineffective. This may require a steady, accurate fire for a long time.

c. Once fire superiority has been gained a sufficient number of infantry weapons must be employed to maintain it. Further advance is made by infiltration or by successive squad or platoon rushes (see chapter 15).

d. Generally the attack will not encounter a continuous, uniformly held line of defense. The enemy will hold the most likely avenues of approach in force, and cover the intervals between with relatively few men. There will consequently be inequality in the resistance encountered and as a result assaulting units will not make uniform progress. Unless otherwise directed as, in a block by block advance in street fighting, each assaulting unit presses on as rapidly as possible within its own zone of action, and outflanks any resistance holding up adjacent units. The battle thus becomes a series of local combats carried on along an irregular line by assault units of varying size. The leading elements of each assault unit advance straight to the front, as close as possible to the hostile position and immobilize the enemy with fire, while additional forces (usually supports and reserves) are brought up on the flank or flanks and envelop the enemy or gain his rear. Enveloping action permits the employment of a longer firing line with a consequent superior converging fire against an enemy whose fire is divergent and of much less volume. (See figs. 2 and 8.) The envelopment may from necessity be uncoordinated but should follow as closely as possible the instruction contained in par. 16-29.

e. In some cases, the flanking fires of mutually supporting hostile groups will be unfavorable to enveloping action. Frontal attack will then be necessary. Supports and reserves are employed to increase the density of the assault echelon or to fill gaps.

f. Regardless of the scheme of maneuver, the action of small elements results in local frontal attacks.

16-18. *THE ASSAULT.*—*a.* The assault is the advance to the enemy's position without a halt. It involves combat at close quarters in order to gain a favorable decision by hand-to-hand encounter (chiefly with the bayonet).

b. The assault is initiated and executed by small units (squads, platoons, or companies), to take immediate advantage of a weakening in the hostile resistance. It is executed by each unit at the earliest moment that promises success.

REORGANIZATION

16-19. *REORGANIZATION*.—During assaults smaller units (squads, platoons, and companies) often become badly mixed and disorganized. The act of assembling and restoring order among these troops is called reorganization. (See chapter 15.)

16-20. *PURSUIT*.—*a*. Troops in the assault echelon, after capturing the hostile position, fire on any of the enemy who attempt to escape (called pursuit by fire), and then effect a reorganization. After being reformed, and if not required to organize the ground for defense, they take up the direct pursuit, by following the enemy to capture or destroy his remaining organized forces. If the enemy gets beyond range, numerous patrols are immediately sent out to maintain contact.

b. As soon as practicable, a coordinated pursuit is inaugurated. An encircling force, composed of reserves which are formed and available, is employed for this purpose. It advances rapidly outside the zone of action to cut off the enemy. Assaulting echelons reorganize and reinforced by local supports push the direct pursuit.

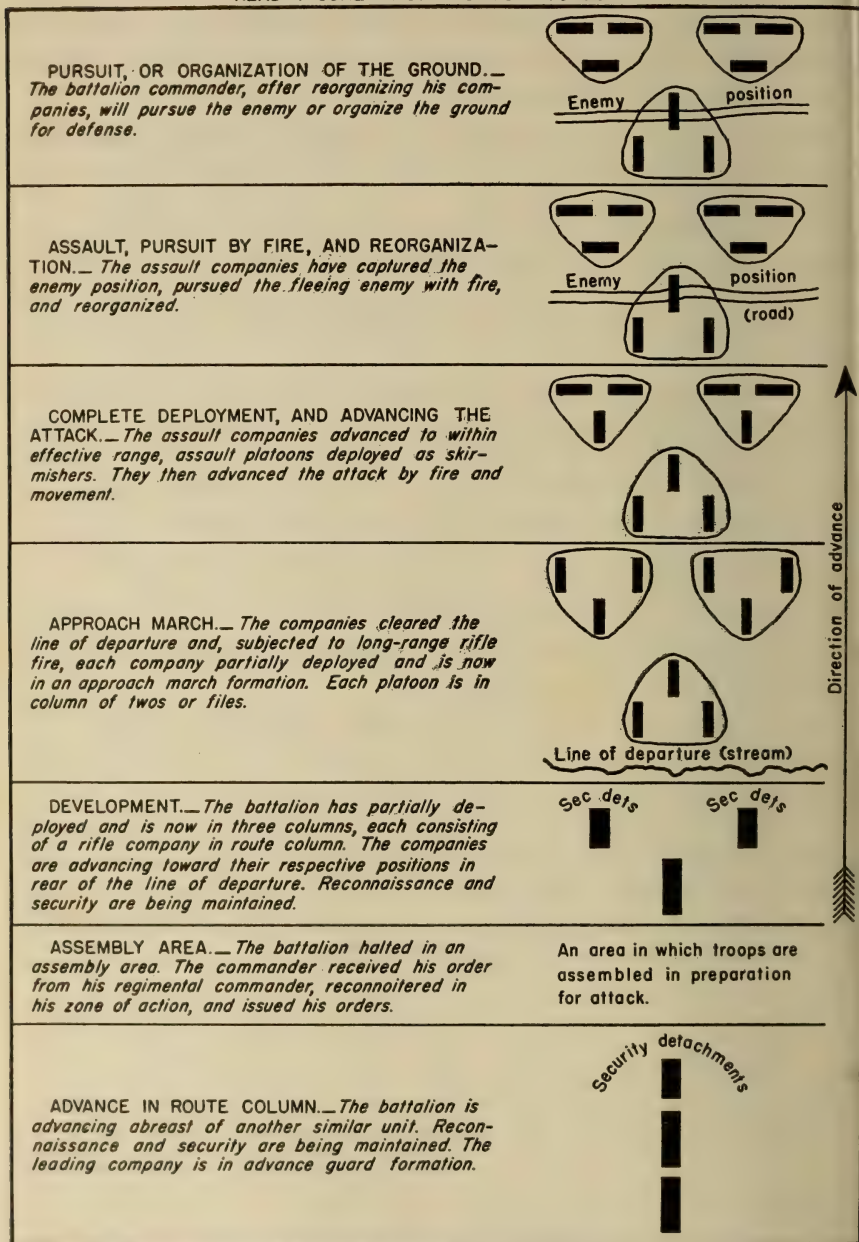
c. Troops in pursuit under hostile fire, deploy as in advancing the attack. When not under fire they advance in route column.

d. The enemy is vigorously attacked wherever found and pinned to the ground, while the encircling force works around his flank to cut him off and destroy or capture him.

16-21. *ORGANIZATION OF THE GROUND FOR DEFENSE*.—Whenever the advance is definitely held up and further progress is impossible, the troops dig in and hold their ground. This is called organization of the ground for defense (or digging-in). Initially, each man digs himself an individual shelter. Later, these shelters are deepened and connected to form field works, and the longer they are occupied the more thorough is their organization. For defensive combat see sections **XI** to **XVI**.

SUCCESSIVE STEPS OF THE OFFENSIVE

READ FIGURE FROM BOTTOM TO TOP



READ FIGURE FROM BOTTOM TO TOP

FIGURE 1.—The successive steps of the offensive by an assault battalion in the attack. To simplify the illustration, only the three rifle companies are shown.

SECTION IV

TYPES OF OFFENSIVE SITUATIONS

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16-22. *ATTACKS CLASSIFIED WITH REGARD TO THE SITUATION.*—From the viewpoint of readiness for action, attacks fall into four general classifications:

- (1) Surprise attacks.
- (2) Meeting engagements.
- (3) Attack against a deployed defense.
- (4) Attack against an organized position.

All types should contain a large degree of the element of surprise.

16-23. *SURPRISE ATTACKS.*—Surprise attacks consist of ambuscades or other sudden, unexpected action against a hostile force caught in route column or other unsuitable formation for combat. Success is secured by a sudden intensive fire at close range, followed by assault with the bayonet, the moral effect of which is overwhelming and prevents organized resistance. Conditions which permit such attacks are due to unpreparedness, insufficient reconnaissance, and faulty dispositions and formations. **It is an unpardonable offense to be surprised within the effective range of infantry weapons.**

16-24. *MEETING ENGAGEMENT.*—A meeting engagement is the collision of two forces not fully deployed for combat. Success in such engagement requires prompt decision, and immediate execution of plan of action (see actions of the advance guard when the enemy is encountered, chapter 12).

16-25. *ATTACK AGAINST A DEPLOYED DEFENSE.*—When an advancing force must pass to the defensive quickly to oppose the attack of a superior force, such as in meeting engagements, delaying actions, and when offensive operations have been stopped by the enemy, little time is available for organizing the position, and it should be attacked at the earliest practicable moment.

TYPES OF OFFENSIVE SITUATIONS

Every hour of delay increases the amount of resistance to be overcome. However, a coordinated plan of attack is necessary. Surprise is secured by rapidity of movement and secrecy of preparation.

16-26. *ATTACK AGAINST AN ORGANIZED POSITION.*—*a.* When the defender has time before meeting the attack to select a suitable position, occupy it and organize the ground deliberately, including the construction of intrenchments and obstacles, and has arranged for the coordinated combined support of his artillery and other weapons, the difficulties confronting the attacker are materially increased.

b. Before an attack can be made against a position so held, it is necessary that a thorough ground and air reconnaissance be made to determine the location, strength, and distribution of hostile forces, and of the artillery and other supporting weapons, probable observation posts, and location and probable use of reserves.

SECTION V

TACTICAL FORMS OF ATTACK

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Envelopment.....	16-29	20
Turning movements.....	16-30	21

16-27. *CLASSIFICATION OF FORMS OF ATTACK.*—*a.* Forms of attack are classified primarily according to the direction and location of the main blow. These are: Penetrations, envelopments, and turning movements. They may be still further classified as main and secondary attacks, and frontal and flank attacks. (See fig. 2.)

b. In some situations, as in a general advance on a wide front through a town, or in an emergency when a patrol has been ambushed, a frontal attack may be made by the whole force.

16-28. *PENETRATION* (see fig. 2).—*a.* A penetration contemplates piercing the hostile position, and the envelopment of one or both hostile elements thus created. Superior local concentration is made opposite the point where the penetration is to be effected; along the remainder of the front the enemy is contained (held in place) by relatively inferior forces. This form of attack is employed only when the enemy is greatly over-extended, and so disposed that his flanks cannot be enveloped; when the time available does not permit an envelopment; or when the terrain and cover favor a penetration. A mere superiority of numbers does not of itself justify the attempt to pierce the hostile position. Secondary attacks delivered at points remote from the one chosen for the main blow may cause further enemy over-extension and attract hostile reserves away from the point selected for penetration.

b. Large commands normally attack both parts of a ruptured hostile position, by flanking action. To secure success, the penetrating force must be disposed in great depth, maintain constant pressure, and give fresh impulses to the attack. Small forces seldom employ the penetration form of attack.

c. The danger to the attacker in this form of action is the exposure of the penetrating force to concentrated or flanking hostile fire.

TACTICAL FORMS OF ATTACK

16-29. *ENVELOPMENT* (see fig. 2).—*a. Definition.*—An envelopment consists in attacking simultaneously the hostile front and one or both flanks. The attack against the front is usually secondary, and seeks to hold the enemy, while the enveloping attack overpowers the opponent by striking him in flank. If both flanks are attacked, the operation is called a “double envelopment.”

b. Advantages of envelopment.—The principal advantages of envelopments are:

(1) The initial front of deployment being increased, the simultaneous employment of increased numbers and fire power becomes possible.

(2) The assailant has converging and enfilading fire on the defender's position.

(3) The infantry secures more space for maneuver, and opportunity is afforded for utilizing to the maximum the available cover in its approach.

(4) If the envelopment succeeds, the enemy is thrown into confusion, his withdrawal becomes difficult, and his lines of retreat are threatened.

c. Disadvantages of envelopments.—The principal disadvantages of envelopments are:

(1) Information as to the location of the hostile flank which determines the direction of attack may prove to have been inaccurate.

(2) The defender may hold his front with weak intrenched forces and may forestall the enveloping attack by disposing strong reserves to meet it or to strike it in flank. This method of defense is most practicable when only one flank favors the enveloping attack.

d. Conduct of envelopment.—The conduct of the envelopment involves the following considerations:

(1) The attack against the hostile front and the enveloping attack are launched simultaneously, or as nearly so as the situation permits, with the greater relative strength in the enveloping attack. It is essential that the enemy be kept in ignorance as long as possible as to which of these is the stronger.

(2) The holding attack against the hostile front, by engaging the enemy, holds him in place and thus prevents him from withdrawing troops to meet the envelopment. To prevent early disclosure of the fact that the advance against the hostile front is merely a holding attack, the unit making it holds out only small reserves, thereby striking in full force. An increased volume of fire, together with indications of vigorous offensive action during the early stages, tends further to deceive the enemy.

TURNING MOVEMENTS

(3) The enveloping attack strikes the decisive blow. This, as a whole, is directed against the flank. The enveloping attack is the main effort, and troops directed to make it should be as free from participation in the attack against the hostile front as the situation will permit.

e. Reserve in envelopment.—Normally the main reserve is placed opposite the interval between the holding and enveloping forces so that it can render support to either in case of emergency. This position will also permit a greater distance between the two forces, thereby increasing the maneuverability of the enveloping force.

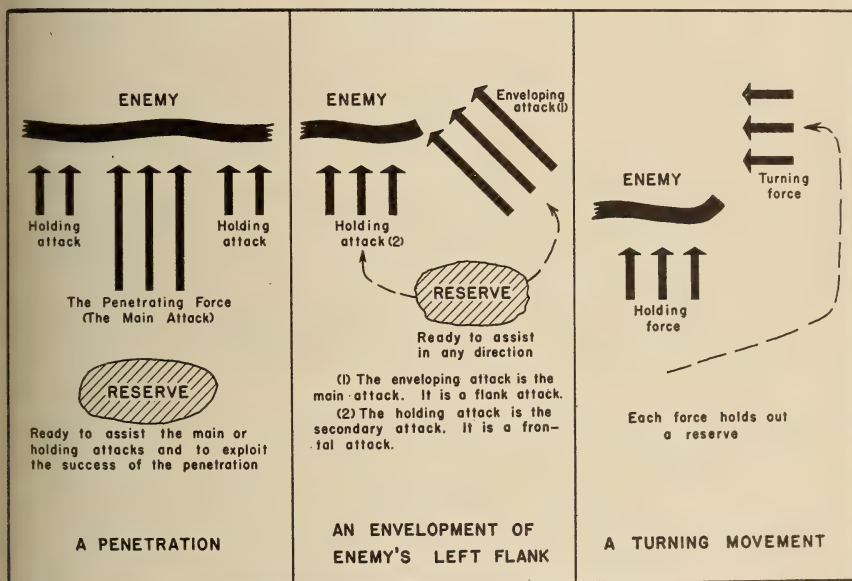


FIGURE 2.—Tactical forms of attack.

f. Coordination of enveloping and holding attacks.—The holding attack may be directed not to pass a designated line until a specified hour; or the hour when both attacks are to pass a designated line may be given. The simultaneous assault of the two attacks is the ideal.

16-30. *TURNING MOVEMENTS* (see fig. 2).—Turning movements comprise operations involving the separation of the command into two forces. One force engages and holds the enemy, while the other, operating beyond supporting distance, makes a detour in order to strike the hostile flank or rear.

SECTION VI

DETAILS CONNECTED WITH ATTACK

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16-31. *OPERATION PLAN (PLAN OF ATTACK)*.—This plan, so far as it applies to the infantry, should include instruction for coordinating the action of all tactical units. It should cover the time of attack, line of departure, and supporting fires; and should include, for each subordinate assault unit, its mission, its role in the scheme of maneuver, the direction of attack, and the zone of action.

16-32. *SCHEME OF MANEUVER*.—*a*. The scheme of maneuver in the attack is that part of the commander's operation plan which applies to the command as a whole and prescribes certain movements and efforts of assault units designed to contribute to the success of the entire attack. The scheme of maneuver will include a decisive attack, or main effort, the success of which will insure the success of the attack as a whole. One or more units will be assigned this task of carrying out the decisive attack, whereas others will be given the mission of attacking within their zones of action to prevent the enemy shifting his reserves to meet the main effort.

b. The scheme of maneuver should be prescribed in detail as far as enemy resistance can reasonably be foreseen; thereafter the maneuver of troops will be controlled by the resistance met and the terrain, the general plan of the higher commander being kept in mind at all times.

c. Each commander must evolve and announce a scheme of maneuver for his command, in which definite tasks are assigned to subordinate assault units. These tasks must be of such nature that,

DETAILS CONNECTED WITH ATTACK

when executed, their accomplishment will contribute to the success of the plan of the next higher unit.

16-33. *MAIN EFFORT*.—In every attack there is some part of the enemy's line against which the assailant throws his greatest strength; this is where the main effort is made. In an enveloping attack, the enveloping force makes the main effort; in a penetration it is the role of the penetrating force.

16-34. *ZONES OF ACTION AND BOUNDARIES BETWEEN UNITS*.—*a*. In deploying for attack, units are usually assigned zones of action, which are primarily areas of responsibility. Boundaries are the lines defining zones of action and are specified in a commander's attack order. An exterior (flank) unit of several units attacking abreast is usually given no exterior boundary. This is done in order to allow it greater freedom of maneuver on its exposed flank.

b. Zones of action may be designated as follows:

(1) By giving boundaries with reference to distinct, unmistakable, and easily recognized topographical features. In addition, if the boundaries are parallel and straight, the direction of attack may also be given. (See fig. 3.)

(2) Where boundaries cannot be given as above, they may be designated by indicating a fixed point where the right or left of the unit is to rest on the line of departure, the width of the frontage, and the direction of attack. (See fig. 4.)

(3) Where neither of the above can be used, boundaries may be designated by indicating a point from which the unit is to start and the lateral limits of its objective or the direction of attack, or both. (See fig. 5.)

c. As here used the term "direction of attack" describes a straight line giving the direction of advance, usually by giving a compass magnetic azimuth. For methods of maintaining direction while advancing, see chapter 15.

d. Zones of action should be prescribed from points far enough to the rear to include all combat elements of the unit and should extend through the depth of the hostile position as far as the commander can anticipate the direction of attack.

e. In the envelopment, the directions of attack of the holding force and of the enveloping force converge. This necessitates a subsequent change of direction of attack of one or both forces; the boundary between them is therefore extended in the direction in which it is

ZONES OF ACTION AND BOUNDARIES BETWEEN UNITS

desired to continue the attack. It must be borne in mind, however, that deployed troops can not readily effect a sharp change of direction, and that this difficulty increases rapidly as the size or number of units increases.

f. The boundary between units should not divide an important tactical locality if such a locality can be taken by one of the units.

g. In order to take advantage of favorable routes of approach or to overcome enemy resistance, units may temporarily move into adjacent zones, but if abreast of or in danger of interfering with the action of the neighboring elements, permission should be obtained from the adjacent unit before making the move. In an emergency and when prompt action is necessary, the commander must rely on his own judgment; he should not hesitate to move out of his zone of action if by doing so he can contribute to the defeat of the enemy. Under these circumstances he should promptly inform the adjacent commander of his action.

h. Designation of zones of action and boundaries.—

(1) **BATTALION ZONE OF ACTION DESIGNATED BY BOUNDARIES AND DIRECTION OF ATTACK.**—Having assembled his company commanders and staff at a position under cover affording the most favorable view of all terrain features of importance in the attack, the battalion commander points them out and at the same time indicates them on his map as follows:¹

“Line of departure: That stream running west from that bridge.

“Right boundary: Improved road running north from that bridge to road junction 342—thence north along the unimproved road to RED House (all inclusive).²

“Left boundary: Those small woods—thence north to that WHITE House—thence north to those large woods (all exclusive).²

“Direction of attack: 330 degrees magnetic.

“Company A, with its right resting generally on the right boundary, will attack on a frontage of 200 yards.³ It will, etc.

“Company B, with its left resting generally on the left boundary, will attack on a frontage of 200 yards.³ It will, etc.”

¹ In some situations it will not be possible to point out terrain features: they will have to be indicated on the map.

² The terms “all inclusive” and “all exclusive” mean that the features referred to are included in or excluded from the battalion zone of action.

³ It is appropriate, when necessary, to assign company zones of action by this method.

DETAILS CONNECTED WITH ATTACK

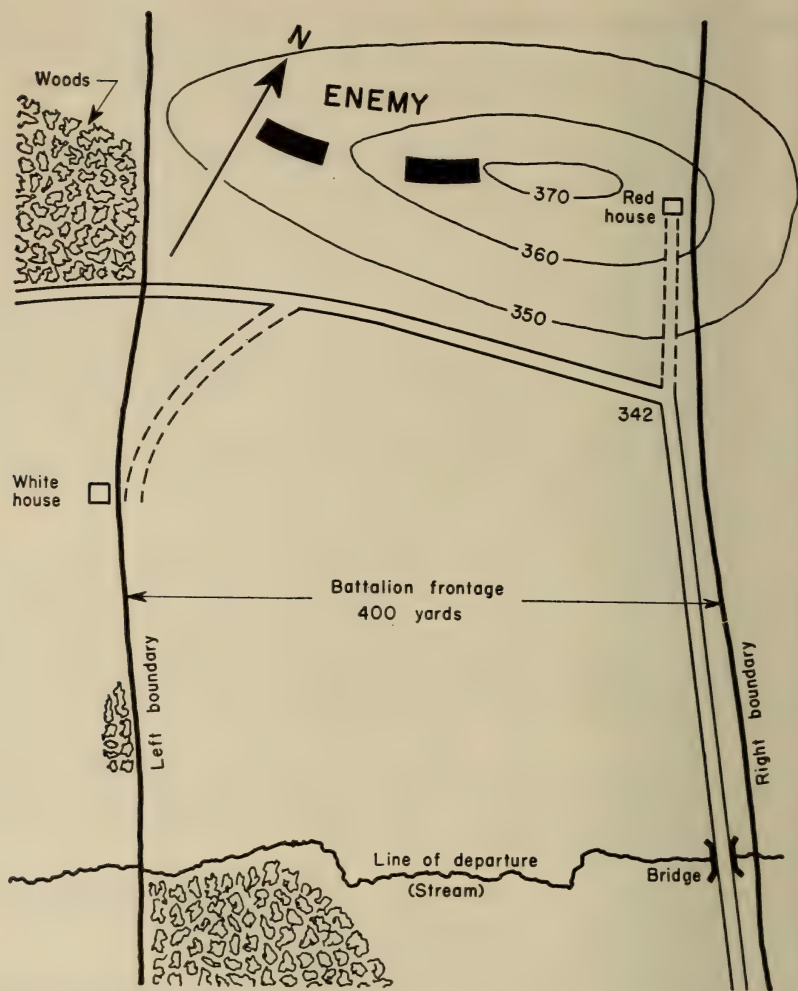


FIGURE 3.—Battalion zone of action designated by boundaries and direction of attack.

(2) COMPANY ZONES OF ACTION DESIGNATED BY A FIXED POINT ON THE LINE OF DEPARTURE, WIDTH OF FRONTAGE, AND DIRECTION OF ATTACK.—Having assembled his officers as before in *h* (1) above, the battalion commander gives his attack order in part as follows:

“Line of departure: That improved road running from east to west.

“Boundary between companies: Line from that clump of trees on line of departure—thence 335 degrees magnetic azimuth.

“Direction of attack: 335 degrees magnetic.

ZONES OF ACTION AND BOUNDARIES BETWEEN UNITS

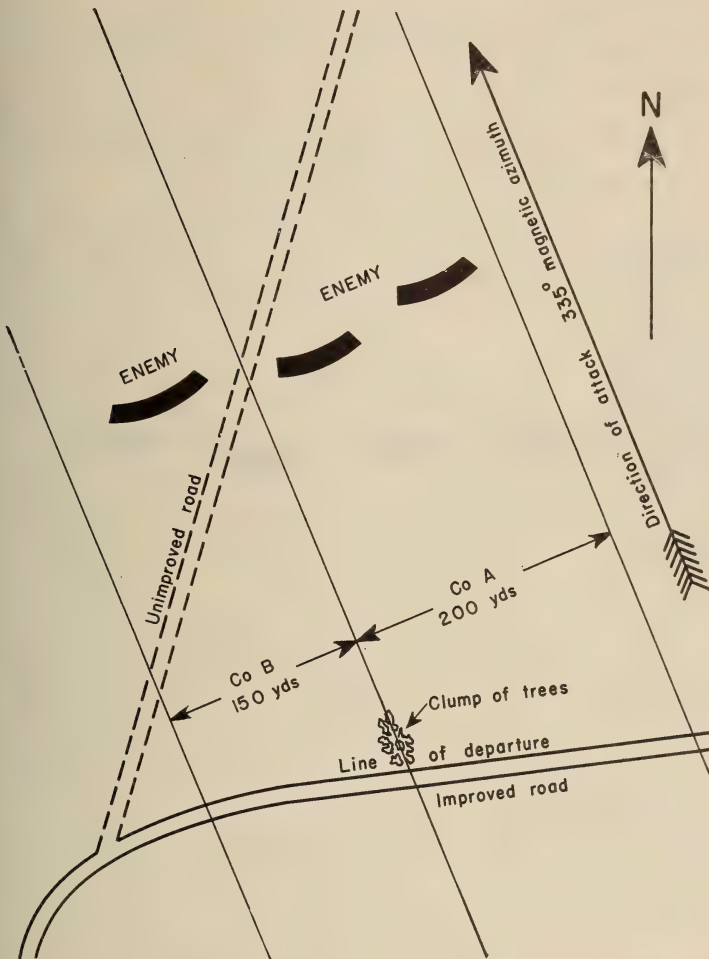


FIGURE 4.—Company zones of action designated by a fixed point on the line of departure, width of the frontage, and direction of attack.

"Company A, with its left resting on that clump of trees, will attack on a frontage of 200 yards. It will, etc.

"Company B, with its right resting on that clump of trees, will attack on a frontage of 150 yards. It will, etc."

(3) **COMPANY ZONES OF ACTION DESIGNATED BY A STARTING POINT, OBJECTIVE, AND DIRECTION OF ATTACK.**—Having assembled his officers as before in *h* (1) and (2) above, the battalion commander gives his attack order in part as follows:

"Direction of attack: 360 degrees magnetic.

DETAILS CONNECTED WITH ATTACK

"Company A, the base company, will attack from its present position and capture the high ground in its front from that road to that house (both inclusive).

"Company B, advancing on the left of Company A, will attack from its present position and capture the high ground in its front from that house to those woods (both exclusive)."

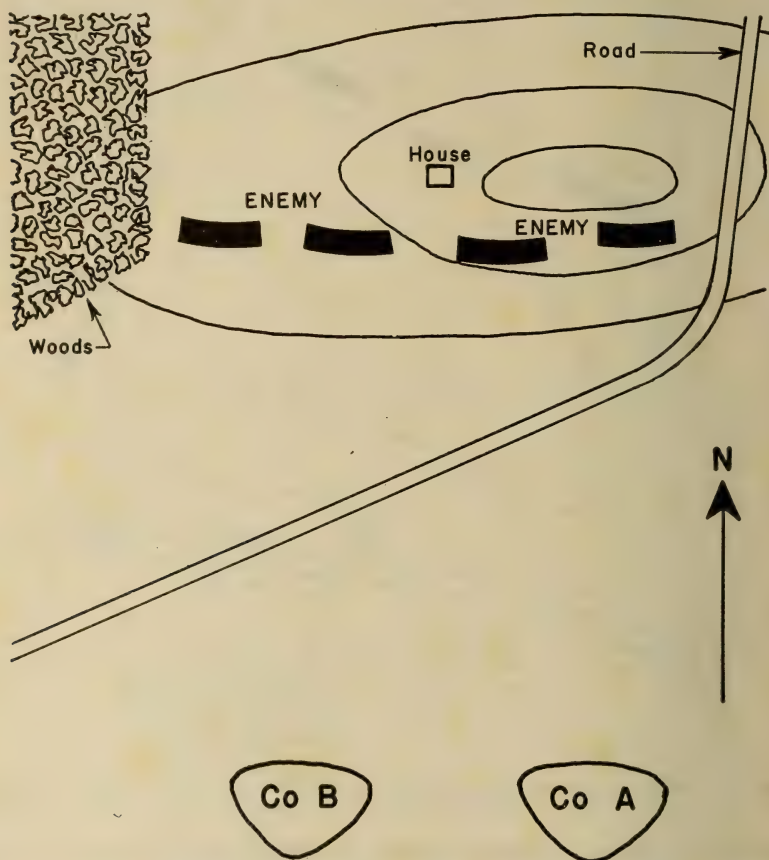


FIGURE 5.—Company zones of action designated by a starting point, objective, and direction of attack.

16-35 *FRONTAGES*.—*a*. The widths of the zones of action assigned to subdivisions in the attack should conform with their missions. A unit, making the main effort or having a decisive mission requiring a deep advance, is given a relative narrow zone to secure the essential driving power. The reverse is true in the case of elements assigned holding attacks.

ATTACK FORMATIONS FOR 3-UNIT ORGANIZATIONS

b. In the final analysis the frontage assigned an organization depends on the number of platoons required in the front line of the assault echelon. The normal frontage of a platoon is about 100 yards.

c. The physical occupation of the entire width of the zone of action (frontage) is not necessary, and is unusual. Gaps between assault elements are often left intentionally in order to facilitate maneuver, to take advantage of cover, or to avoid dangerous areas. These gaps may be covered by observation, by flank patrols, and by the fire of assault elements and supporting weapons.

16-36. *ATTACK FORMATIONS FOR 3-UNIT ORGANIZATION.*—a. The formations described for ships' landing forces at normal strength are based on a three-unit organization; that is, a platoon of three squads, a rifle company of three platoons, an infantry battalion of three rifle companies, and a regiment of three infantry battalions; but the organization can be modified as considered desirable and as indicated in chapter 1. Changes in organization of units will require corresponding modification in their tactical employment.

b. The formations of the rifle company in attack indicate the relative positions of the three platoons; however, as indicated in fig. 6, these have equal application to the rifle companies of a battalion or to the battalions of a regiment.

c. Attack formations include:

(1) *Two platoons (companies or battalions) in assault and one in support.*—This formation is appropriate when the zone of action cannot be properly covered by one platoon (company or battalion) and when considerable fire power and shock action are desired initially. It provides for security and maneuverability and is the one usually employed. (See fig. 6 (A).)

(2) *One platoon (company or battalion) in assault and two in support.*—This formation affords excellent security and permits the company (battalion or regiment) to engage in any direction. (See fig. 6 (B).)

(3) *All platoons (companies or battalions) in column.*—This formation is desirable when the situation is vague. The leading platoon (company or battalion) is employed to find the enemy and hold him in place, while the remaining units are left free to maneuver. It is also used when the enemy situation is known, the zone of action is narrow, and a deep penetration is required. Initially it has the disadvantage of limited fire power. (See fig. 6 (C).)

DETAILS CONNECTED WITH ATTACK

(4) *All platoons (companies or battalions) in line.*—This formation permits a maximum distribution and initial intensity of fire. It lacks driving power and maneuverability and should not be employed except when the disposition of the enemy is known and a holding attack or short advance on a broad front is necessary. (See fig. 6 (D).)

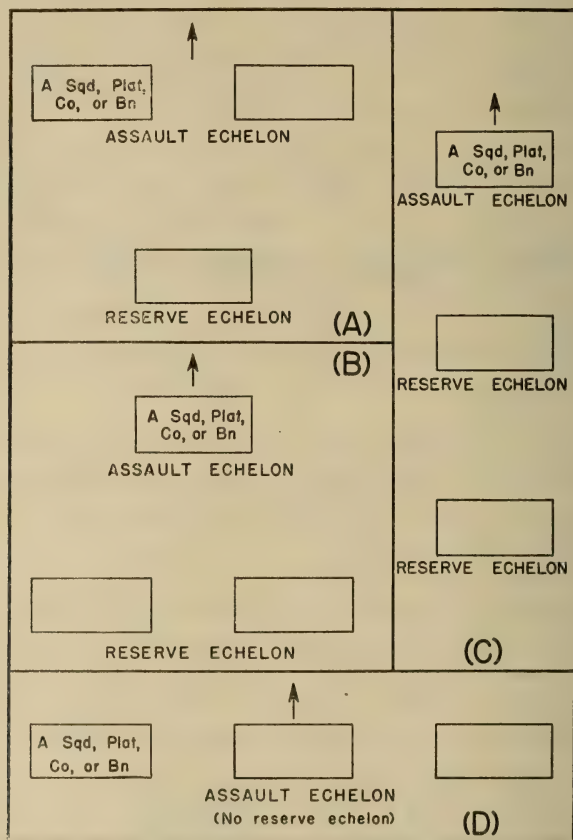


FIGURE 6.—Attack formations for any three-unit organization (platoon, company, battalion, or regiment).

NOTE.—The supports of battalions and larger units are called reserves. In companies and platoons they are called supports.

c. For instruction governing the employment of support or reserve units in attack, see par 16-7.

16-37. **LINE OF DEPARTURE.**—The line of departure or “jump-off line” is usually a terrain feature which the leading assault units are directed to cross at a designated time. It is prescribed in order to coordinate the time of advance of the assault elements, and should be

FLANK PATROLS AND CONNECTING GROUPS

recognizable on the ground (road, stream, edge of woods, etc.). It should be approximately perpendicular to the direction of attack and provide cover from observation and from horizontal fire, and be as close to the enemy as practicable, but not so close that troops cannot reach it without engaging in the fire fight. The greater the distance from the line of departure to the hostile position, the greater the difficulty of coordination and control during the attack.

16-38. *FLANK PATROLS AND CONNECTING GROUPS* (see figs. 7 and 8).—*a. Flanks patrols.*—A flank patrol is one sent out to protect the flank. In attack it has a combat mission, and is therefore organized and prepared to fight.

b. Connecting groups.—(1) A connecting group is one detailed to maintain contact with an adjacent unit and to furnish information. Platoons and higher units must maintain contact with corresponding adjacent elements. The primary task of a connecting group is to maintain contact and to give warning in case of flank attack. It will fight to insure its own safety or to protect the unit from which it was sent.

(2) Connecting groups usually consists of two- or four-man patrols sent out by the support or the reserve, to one or both flanks as may be required.

(3) The connecting group should know at all times the location of its own unit and the one with which it is required to keep in contact. Contact must never be lost with the unit to which it belongs. If lost with the adjacent unit, immediate report is made to its own unit; in which case, unless recalled, or contact is reestablished, it becomes a combat patrol and protects the flank (now exposed).

(4) Companies and platoons can in some situations maintain contact by the use of observers assigned to watch corresponding adjacent units without leaving the formation.

16-39. *COMMAND POSTS AND AXES OF SIGNAL COMMUNICATION.*—*a. Command posts.*—A command post is the place, usually under cover, occupied by a commander and the forward echelon of his headquarters, for the purpose of directing and controlling his unit in combat. Commanders of larger units are not required to remain at their command posts and in order to get first-hand information of the situation, may frequently go to forward regularly established observation posts, or other positions where they can see the progress of the attack. During their absence, the executive officer generally remains at the command post, and is authorized to make necessary decisions and issue necessary orders in the name

DETAILS CONNECTED WITH ATTACK

of the commander, who must be immediately informed of the action taken. The following considerations govern the establishment of a command post:

(1) *Selection*.—Location should provide:

(a) A point from which control of the unit may be exercised.

(b) Accessibility to higher, adjacent, and subordinate units (provide logical routes for messengers to follow).

(c) Accessibility to the entire system of signal communication (radio, telephone, visual, etc.).

(2) *Movement*.—The command post should be moved when the progress of the action indicates that control will be greatly impaired or even lost if it remains longer in its present location. The communication officer or, in his absence, the adjutant should anticipate the movement, and arrange to have the personnel and equipment ready to move to the new site as soon as it has been selected. The movement is made at a specified time and all interested parties so informed. When necessary, one man should be left at the old command post to direct messengers to the new one.

b. *Axes of signal communication*.—The axis of signal communication of an organization normally is the route of advance of its wire communication (laying telephone wires). The points named to describe the routing are the localities selected for the successive positions of the command post when it moves forward. In the operation order it is desirable to prescribe the axis of signal communication, even though no wire is available, in order that the new locations of the command post may be known.

c. The communication platoon of a battalion or larger unit has the following means of communication:

(1) Each ship's landing force:

Messengers.

Flags, semaphore.

Radio.

(2) Other means that can be made available in some situations:

Telephone.

Panels for air-ground liaison.

Pyrotechnics.

16-40. *OBSERVATION POST*.—a. An observation post is a point selected for the observation of the ground occupied by friendly and enemy troops, or ground over which the attack is to take place. The observation post should be connected with the command post by wire, by messenger, or by visual signals. The observation post

OPERATION ORDER FOR ATTACK

is moved from time to time as the attack progresses so that the organization commander may keep constantly in touch with the situation. The movement of the observation post should be coordinated with that of the command post so as to insure rapid communication between them.

b. The intelligence section of an organization usually mans one or more observation posts.

16-41. *OPERATION ORDER FOR ATTACK.*—*a.* The form prescribed for a naval operation order is used for orders issued by ships' landing forces.

b. The operation orders of brigades and higher units are usually written; those of regiments and lower units are usually oral. Oral orders should follow the sequence prescribed for written orders. The following outline of an attack order indicates many of the details peculiar to infantry combat.

c. An operation order for attack should include the following provisions:

1. *a. Information of the enemy.*—Strength; composition; and position occupied.
- b. Information of friendly troops.*—Such as position of advanced units or security elements; troops within supporting distance with mission (as units on right and left); plan of higher commander; and what artillery and aviation support he will provide (if any).
2. *Decision of commander.*—Task or objective; scheme of maneuver (such as envelopment, penetration, etc.); general attack formation; time of attack; line of departure; direction of attack; zone of action; boundary between units.
3. *a. Detailed instruction for assault units.*—Task or objective; scheme of maneuver; time of attack (when different from that given in par. 2); direction of attack or distant direction point; zone of action (when not indicated in par. 2); assistance to be given or received from adjacent units; flank protection when necessary. A separate lettered subparagraph is assigned to each unit or group of units having the same tasks.
- b. Instructions for artillery, or for machine guns, 37-mm guns, 81-mm mortars, etc.*—Tasks or targets; general positions; manner of support. The superior commander includes instructions for artillery (if present) but not those relating to infantry weapons included in the armament of rifle units. Subordinate commanders issue instructions for the support to be given by their machine guns, 37-mm guns, 81-mm mortars, etc. Separate lettered subparagraphs are allotted to each unit.
- c. Instructions for reserve.*—Composition; position; special missions, such as flank protection, maintaining contact, support of attack by fire; etc.

DETAILS CONNECTED WITH ATTACK

- x. Instructions applicable to the entire command* which do not belong in another subparagraph, such as instructions for reconnaissance; secrecy; hour at which units will be in attack positions; arrangements for lifting supporting fires; etc.
- 4. Instruction with regard to:
 - a. Supplies.*—Rations; water; carrying parties; ammunition (location of munitions distributing points).
 - b. Evacuation.*—Location of aid stations; disposition of prisoners.
 - c. Other administrative details.*
- 5. *a. Axis of signal communication* of unit and lower units.
 - b. Location of command posts* of unit and lower units.

SECTION VII

THE RIFLE COMPANY IN ATTACK

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16-42. *ADVANCE IN ROUTE COLUMN* (see fig. 7).—*a. Formation.*—

(1) The normal formation of the company while advancing alone is route column, with the main body in column of threes (or fours), preceded and, if necessary, followed by such security and reconnaissance detachments as are required by the particular situation.

(2) The company commander normally marches at the head of the main body; but he goes wherever his presence is necessary.

(3) Company headquarters is formed as a separate element and marches at the head of the main body.

(4) The leader of a platoon in the main body normally marches in the column at the head of his platoon; but he goes wherever his presence is necessary. The platoon petty officer marches at the rear of his platoon.

(5) When attack by hostile aviation is expected, the company will march in a formation from which it can instantly deploy and open fire with all weapons on the hostile planes. Usually the distance between platoons is increased.

b. During the advance in route column, the company commander will require his officers and petty officers to maintain march discipline and prevent straggling.

16-43. *APPROACH MARCH.*—*a. Method of deploying.*—The company commander deploys his company by oral orders or by signals. He prescribes the formation: designates a base platoon; as-

THE RIFLE COMPANY IN ATTACK

signs an azimuth, objective, or route; and provides the necessary security and communication between platoons and adjacent units.

b. Formation.—The frontage assigned to a company for an attack in the open is usually about 250 yards, and for advancing through towns sufficient frontage to include two city streets. For attack formations see par. 16-36. The distances and intervals between platoons are increased and decreased according to the terrain, hostile fire, and the difficulty of maintaining control. At night, and in fog or smoke, or when moving through woods, distances and intervals are decreased to insure control.

c. Duties of the company commander.—As a company advances in the approach march the company commander:

(1) Moves to points from which he can observe the ground to the front and flanks, continually reconnoitering in order to plan ahead. He should not, however, go where he will lose control of his company.

(2) Insures that his base platoon guides on the base company and, in case his is the base company, the correct and accurate progress of his base platoon. For methods of maintaining direction see chapter 15.

(3) Is responsible for the security of his unit and sees that the front is covered by the leading squads of the assault platoons and that exposed flanks are protected by patrols, usually from the company support, or battalion reserve.

(4) Sees that contact is maintained with adjacent units by connecting groups, provided by, and marching approximately abreast of the support.

(5) Maintains communication with his platoon leaders, with the battalion commander, and with adjacent units during all stages of the advance. Messengers are utilized for this purpose.

16-44. *RECONNAISSANCE, AND COMPANY OPERATION (ATTACK) ORDER.*—*a.* Before moving his company to the line of departure the company commander should be furnished with the attack order by his battalion commander. When ordered to report for this order, he proceeds to the battalion command post or other designated place accompanied by two or more messengers. The second in command assumes all responsibilities and duties during the absence of the company commander.

b. Upon receipt of the battalion attack order, the company commander makes such reconnaissance as is necessary, and insures the movement of his company to the line of departure. The purpose of his reconnaissance is to determine the probable or actual location of the

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enemy positions and to make a detailed examination of the ground over which his company must attack.

c. Based upon the battalion order and his own reconnaissance, the company commander determines the best method of employing his company and prepares his attack order. This order should be issued verbally to the assembled platoon leaders at a location where the terrain over which the attack is to take place can be seen and features of military importance can be pointed out.

d. Sufficient time should be allowed for reconnaissance and issuance of orders by subordinate leaders.

16-45. *ADVANCING THE ATTACK.*—*a.* Each assault and support platoon advances as described in chapter 15.

b. Normally, fire is opened on order of platoon leaders, but the company commander may restrict this authority to his own orders. Each platoon advances as rapidly as the situation permits and, unless otherwise ordered, makes no effort to guide on the base unit beyond maintaining the general alignment. Once the leading elements are committed to action their further advance is mainly in the hands of the platoon and squad leaders.

c. The company commander seeks to advance the company through the lanes of easiest approach to his objective. The assault platoons make every effort to locate gaps and weak spots in the enemy's position and to work their way through them with minimum losses.

d. The support platoon must not be permitted to merge with the assault elements. Usually it follows them at a distance of from 100 to 400 yards.

e. Duties of the company commander.—During the attack, a company commander moves where he can best supervise the action of his platoons. His best position is usually with the support or between the support and the assault echelon, although he should at all times be able to observe the action. He intervenes in the conduct of assault platoons only when it is apparent that his instructions are not being complied with. His principal duties include:

- (1) To supervise and coordinate the action of all three platoons.
- (2) To utilize his support platoon as indicated in par. 16-7.
- (3) To utilize supporting weapons assigned to his company and, when necessary, to call on his battalion commander for additional fire support.
- (4) To forward ammunition to his assault platoons, when necessary.
- (5) To reorganize the company whenever an opportunity presents itself.

THE RIFLE COMPANY IN ATTACK

- (6) To keep the battalion commander informed of the situation.
- (7) To see that prisoners are sent to the battalion command post.
- (8) To see that effectives are not allowed to go to the rear with wounded men, unless this method of handling the wounded is necessary, and is justified by the situation.

16-46. *THE ASSAULT.*—*a.* The assault is launched when the assault echelon has progressed to within assaulting distance and fire superiority has been gained.

b. The company commander is responsible that the assault is delivered at the proper moment.

c. If the assault is not started by the assault echelon, the company commander gives the necessary signal or command. The signal or command is repeated by all officers and petty officers. The men go forward at a run, closing with the enemy and using the bayonet.

d. It may happen that the advance is held up in front by a strong hostile position. In such case, the fire of all available supporting weapons is placed on the position, and the assault elements are pushed as far forward under this fire as safety permits. By the maneuver of reserves or the action of adjacent units able to advance, the position is turned and attacked in flank. Assault echelons which have been held up, then assault in coordination with the flank attack.

e. When the company becomes so depleted or exhausted as to be unable to advance farther by its own efforts or those of supporting weapons, the position reached must be held at all costs. It is at such time that counterattacks are most dangerous and, therefore, immediate preparations must be made to meet them. These include: Prompt reorganization of the platoons, security measures to the front and flanks, and a hasty disposition of units to hold the ground gained. The battalion commander must also be advised of the approximate strength and location of the company and of the situation.

16-47. *REORGANIZATION AND PURSUIT.*—*a.* After a successful assault, the company pursues the retreating enemy with fire and the company commander reorganizes his command on the captured ground in order to hold it or to continue the attack in an orderly manner. The platoons are reorganized as described in chapter 15.

b. After reorganization of the company and when so ordered by the battalion commander, the company takes up the direct pursuit.

16-48. *ORGANIZATION OF THE GROUND.*—*a.* When the advance is definitely stopped, or the objective has been gained, the company commander establishes his firing line and support line as di-

RESERVE COMPANY

rected by the battalion commander, and organizes his area. If no instructions have been received, he acts on his own initiative.

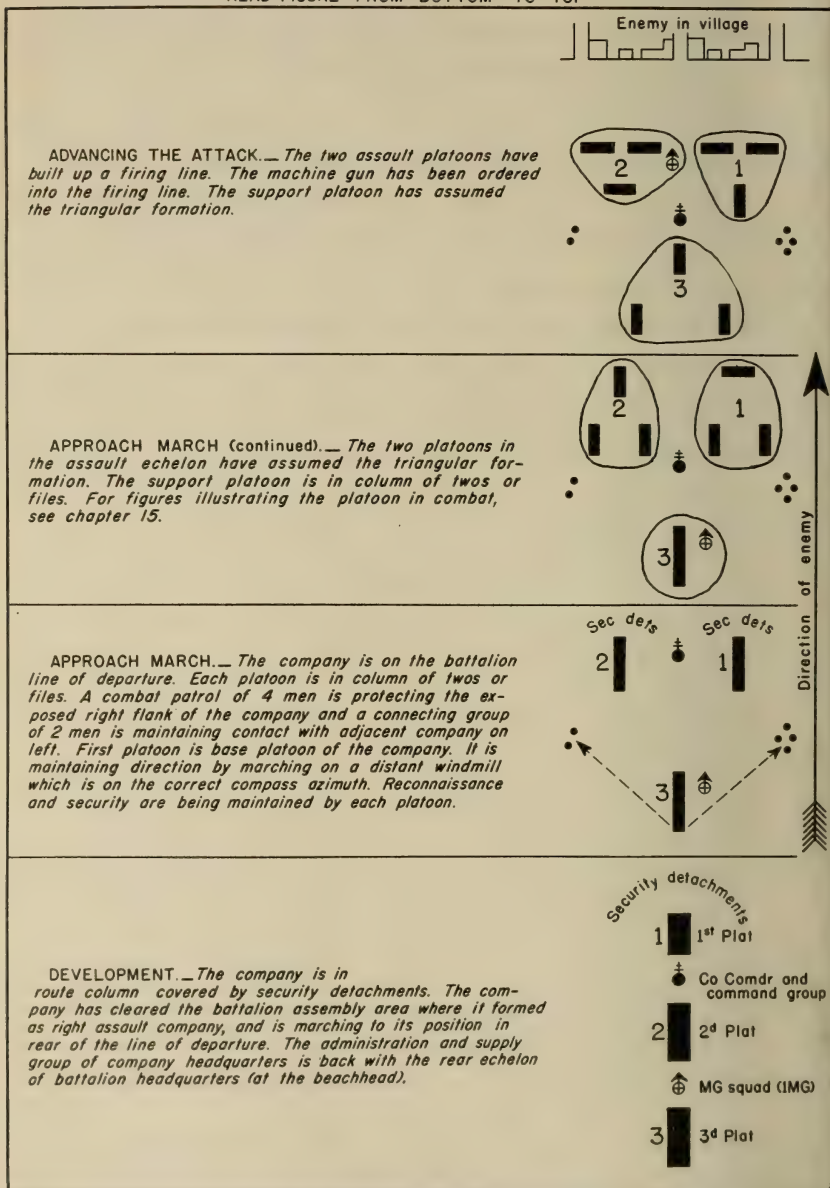
b. The following are some of the duties of the company commander during the organization of the ground:

- (1) Sends out covering detachments.
- (2) Determines how he will dispose the elements of his company and posts the platoons in the positions decided upon.
- (3) Locates and establishes the company command post.
- (4) Establishes contact with adjacent units and units in his rear.
- (5) Coordinates his fires, including those of supporting weapons, with those of adjacent units.
- (6) Requires all units to dig in as rapidly as possible.

16-49. *RESERVE COMPANY*.—When the battalion develops for the approach march or attack formation its commander usually assigns one or two rifle companies as battalion reserve. For instructions governing the employment of a reserve company see par. 16-7.

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FIGURE 7.—Entry of a rifle company (plus one machine gun) into combat.

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16-50. *THE ADVANCE IN ROUTE COLUMN AND APPROACH MARCH* (see fig. 8).—*a.* The battalion advances in route column to the battalion assembly area, or to the point where it must halt to make a partial deployment or to assume its attack formation. While in route column the main body is in column of threes (or fours) and is covered by such security (advance guard, etc.) and reconnaissance detachments as are required by the situation.

b. In making a partial deployment the battalion commander designates a direction of march or an objective by pointing out prominent terrain features or by giving a magnetic azimuth or both, and designates one rifle company as the base company upon which the movement is regulated. For methods of maintaining direction see chapter 15.

c. The battalion having made a partial deployment may be disposed in any of the attack formations described in par. 16-36. Companies should be in readiness to move directly to the attack.

d. The battalion commander should receive his operation (attack) order from the regimental commander while the battalion is marching to its assembly area or is making its partial deployment.

16-51. *ISSUING THE OPERATION (ATTACK) ORDER*.—*a.* On receipt of the regimental operation order, the battalion commander makes a reconnaissance of the ground over which the attack is to be made and estimates the probable enemy dispositions and intentions. He consults those members of his staff and subordinate commanders as may be present; such as, the commander of supporting weapons for recommendations for the employment of their weapons, including their positions, targets to be engaged, and the general method of support. Based upon the regimental order, his reconnaissance, and the recommendations received, the battalion commander formulates his plan and issues his order.

THE BATTALION IN ATTACK

b. The battalion commander usually issues oral orders to his assembled company and attached unit commanders and staff, at a point under cover where, when practicable, they can see the ground over which the attack is to be made. Sufficient time should be allowed subordinate commanders to make a reconnaissance and to issue their orders.

16-52. *THE ATTACK.*—*a.* A battalion, making a decisive attack, should be assigned a zone of action from 250 to 500 yards wide. In a holding attack the zone of action may be more than 500 yards wide. For a desirable attack formation see par. 16-36.

b. Normally a battalion commander will not prescribe the formation within the companies, but he may do so in order to insure that the front is adequately covered.

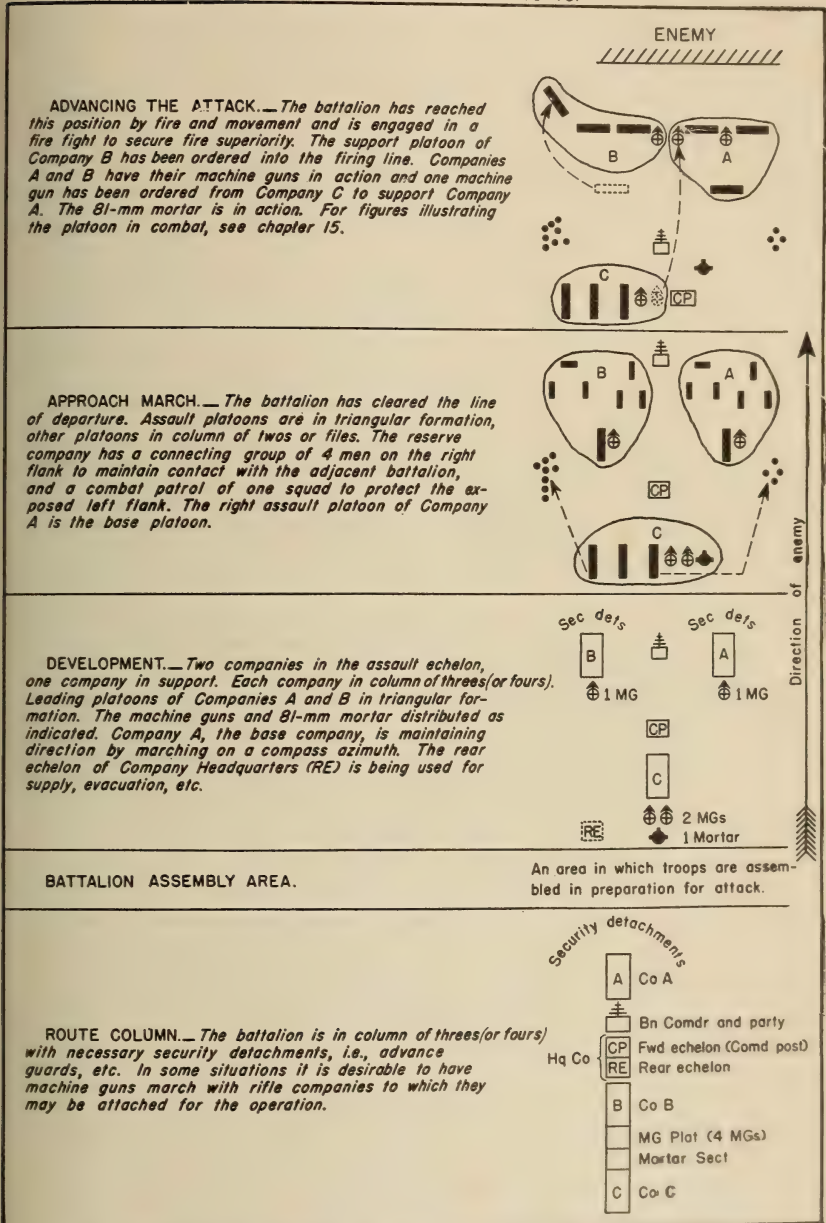
c. After the battalion has been committed to the attack, the only way the battalion commander can alter the formation is by the movement and employment of the reserve and supporting weapons.

d. During the attack, the advance of the assault companies is mainly in the hands of subordinate leaders.

16-53. *RESERVE BATTALION IN THE ATTACK.*—A battalion in regimental or brigade reserve functions as prescribed in par. 16-7.

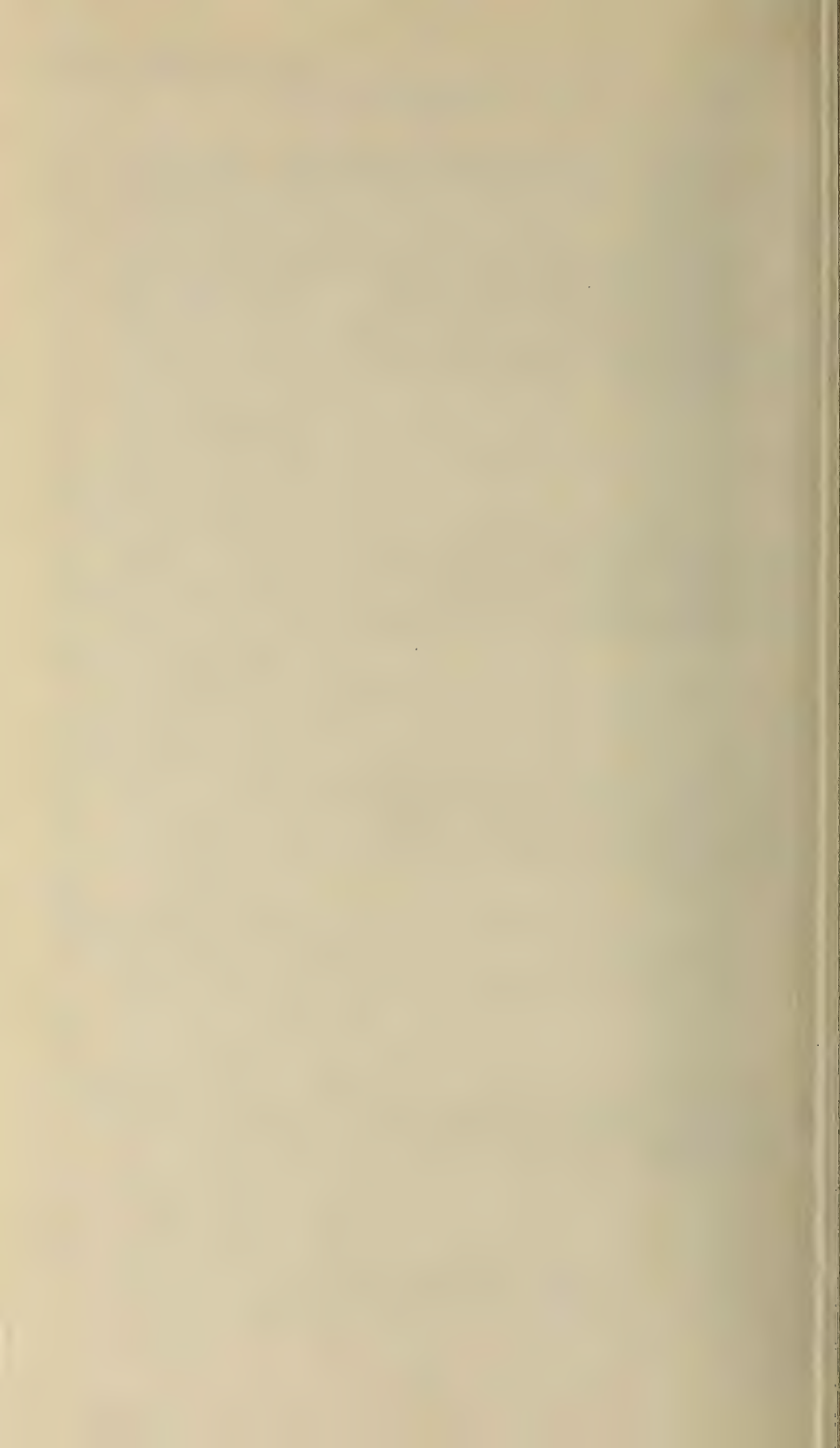
THE BATTALION IN ATTACK

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FIGURE 8.—Entry of a battalion into combat.



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16-54. *DEVELOPMENT (PARTIAL DEPLOYMENT)*.—Normally, when the regiment begins its deployment for battle, the regimental commander designates march objectives or assembly areas for each battalion. If the employment of the regiment can be anticipated the battalions should initially be so disposed as to facilitate their deployment and entry into combat.

16-55. *RECONNAISSANCE*.—At some time during partial deployment, the regimental commander should receive the brigade order for the attack. When received, and assisted by his staff, he makes a reconnaissance to determine how to employ his regiment and then prepares his plans. This reconnaissance should include the ground over which the attack is to be made. When time and the enemy situation make it necessary, the reconnaissance is omitted or limited, and the plan is based on a map study. The regimental order should be issued before the battalions leave the last covered position prior to launching the attack.

16-56. *ISSUE OF REGIMENTAL OPERATION (ATTACK) ORDER*.—The regimental attack order is usually issued orally and preferably at a locality, under cover, which affords a view of the terrain. Commanders of battalions and of attached units should be assembled to receive the order, but if this is impracticable it may be issued to staff officers and transmitted by them to subordinate commanders. It is essential that the order be received by subordinate commanders in sufficient time to permit them to make a reconnaissance and to issue their orders.

16-57. *DETERMINATION OF INITIAL FORMATION*.—A. A regiment, making a decisive attack, should be assigned a zone of

THE REGIMENT IN ATTACK

action from 400 to 800 yards wide. For a desirable attack formation see par. 16-36.

b. When one battalion is held in brigade reserve, the regimental commander must be prepared to carry out his task with two battalions. Normally, in such case, the brigade commander assigns a narrower zone of action to the regiment concerned, or employs it to deliver the holding attack.

16-58. *SUPPORTING WEAPONS, AND THE REGIMENTAL RESERVE.*—a. After the regiment has been committed to the attack, the only way its commander can influence the action is by employing the reserve, and by better concentration of supporting fires.

b. Supporting fires should be employed primarily to assist the battalion that is making the greatest progress.

16-59. *ACTION UPON REACHING THE OBJECTIVE.*—When the regiment reaches its objective, its commander takes steps to maintain contact with the enemy. He may direct assault battalions to institute vigorous patrolling, or to continue their advance to new objectives. He may employ the reserve to exploit the success. At the same time necessary measures are taken to hold the position against counterattacks. If assault echelons lose contact and the danger of counterattack seems remote, the regiment is reorganized and prepares to pursue, but the pursuit is not made without orders from higher authority.

16-60. *POSITION OF REGIMENTAL COMMANDER DURING ATTACK.*—During the attack, the regimental commander normally is at the regimental command post. He keeps in touch with his battalions and secures additional information from the intelligence agencies (including observers at observation posts) operated by the intelligence officer. The executive officer coordinates and supervises the operations of the command post, leaving the regimental commander free to devote his attention to the tactical handling of his regiment.

16-61. *REGIMENT AS BRIGADE RESERVE.*—The regiment, or the regiment less a battalion, may be employed as a brigade reserve.

SECTION X

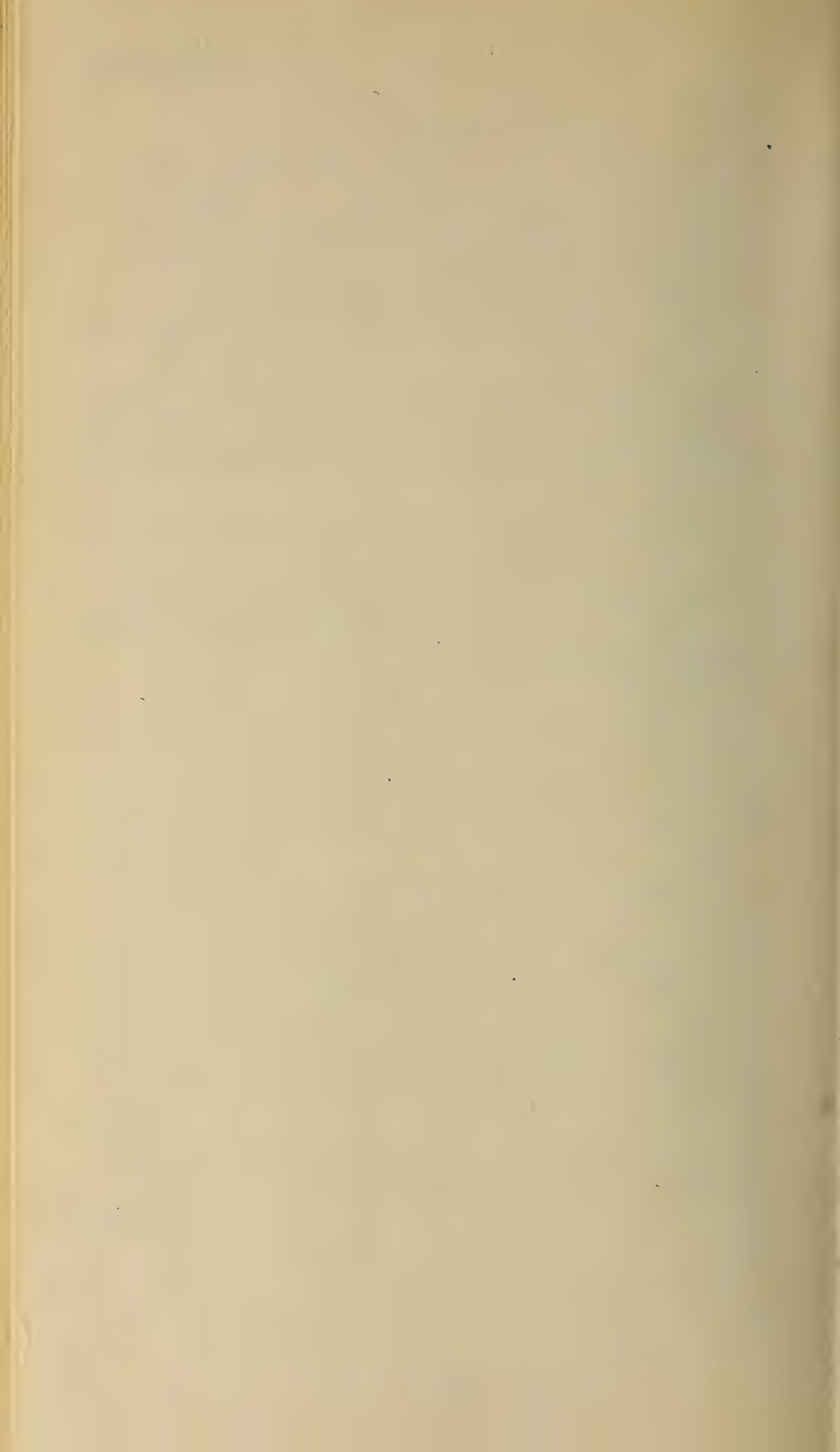
THE BRIGADE IN ATTACK

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16-62. *THE BRIGADE IN ATTACK.*—*a.* The combat principles of the infantry brigade, composed exclusively of infantry units, and supported only by infantry weapons, are analogous to those prescribed for the regiment.

b. The brigade may attack with regiments in column or with regiments abreast.

c. When the brigade attacks with regiments in column the rear regiment normally is held in brigade reserve. When the brigade attacks with regiments abreast the brigade commander usually holds out one battalion as brigade reserve.



SECTION XI

DEFENSIVE COMBAT, GENERAL

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16-63. *PURPOSE OF DEFENSIVE COMBAT.*—Situations requiring an organization to assume the defensive include:

(1) To gain time pending the development of more favorable conditions for undertaking the offensive.

(2) To keep the enemy out of territory that has tactical, strategic, or political importance.

16-64. *ADVANTAGES AND DISADVANTAGES OF THE DEFENSIVE.*—*a. Advantages.*—A force on the defensive can usually choose the ground upon which it intends to defend. Once the defensive position is determined, the force can then organize the position by adapting its means of combat to the natural defensive facilities of the ground and by improving these by the construction of fortifications and obstacles. Communication between elements of the defense is simplified, approaching those of a semi-permanent nature, and coordination and control become more certain, even during combat, than when a force is on the offensive.

b. Disadvantages.—When a command takes the defensive, it loses the initiative. Maneuver is restricted since, to some extent, it is tied down to a given area. Consequently the attacker can often concentrate superior numbers against a fraction of the defender's force, and contain (hold in place) the remainder by the use of relatively inferior forces.

16-65. *TERRAIN AS A FACTOR IN DEFENSE.*—When selecting and establishing a defensive position, consideration must be given to the following terrain features:

(1) *Observation.*—The position should be upon terrain affording good observation so as to afford ample warning of the enemy's approach or other movements.

DEFENSIVE COMBAT, GENERAL

(2) *Fields of fire*.—It must be possible to fire on the enemy along the front and to the flanks at ranges great enough to stop him before he reaches the main line of resistance.

(3) *Concealment*.—Concealment from view, both aerial and terrestrial, is important and is attained by the skillful use of woods, ridges, irregular terrain, and camouflage. A too lavish or extensive use of cover will normally result in limiting the field of fire.

(4) *Natural obstacles*.—Unfordable streams, swamps, or a mountain barrier make movement difficult for the attacker, and enable the defender to protect his flanks, or to hold part of the front with relatively weak forces.

16-66. *DEFENSE ORDER*.—An operation order for taking up a defensive position should include the following provisions:

1. *a. Information of the enemy of concern to the unit.*
- b. Information of available friendly troops*.—Location and task of next higher and adjacent units, including location of their reserves; location and task of local security and outpost detachments; location and tasks of supporting infantry weapons and artillery.
2. *Decision of the commander*.—General lines to be defended (main line of resistance, battalion reserve line, regimental reserve line); boundaries of the sector and of the next inferior units of the command.
3. *a. Detailed instructions for units*.—Assignments to sectors or localities to be defended; instructions regarding security measures; special instruction for the construction of fortifications, including priority of work, and number and strength of working parties; conduct of the defense. (Use a separate lettered subparagraph for each subordinate unit holding a subdivision of the sector.)
- b. Instructions for artillery, or for machine guns, 37-mm guns, 81-mm mortars, etc.*—Tasks or targets; general locations. The superior commander includes instructions for artillery (if present) but not those relating to infantry weapons included in the armament of rifle units. Subordinate commanders issue instructions for the coordinated fires of their machine guns, 37-mm guns, 81-mm guns, etc. Separate lettered subparagraphs are allotted to each unit.
- c. Reserves*.—Designation; commander; positions; degree of readiness; work to be done in organization of position.
- x. Instructions for entire command*.—These include time available for organizing the position, and conduct of the defense as follows:
 - (1) Mission assigned outpost troops.
 - (2) Strength of outpost troops.
 - (3) Conduct of outpost troops in case of general attack.—Definite instructions to withdraw or hold, depending upon the task and situation.
 - (4) Instructions for local security.
 - (5) Counterattack.—When made; by what units; by whom ordered.
 - (6) Instruction for the coordination of supporting weapons and reserves.

PRINCIPLES APPLICABLE TO THE DEFENSIVE

(7) Instructions for coordination of infantry and artillery defensive measures.

(8) Special instructions for organization of the ground.—Location and construction of obstacles and shelters; clearing fields of fire; priority of work.

4. Instruction with regard to:

a. Supplies.—Rations; ammunition; water; engineer equipment.

b. Evacuation.—Location of aid stations; disposition of prisoners.

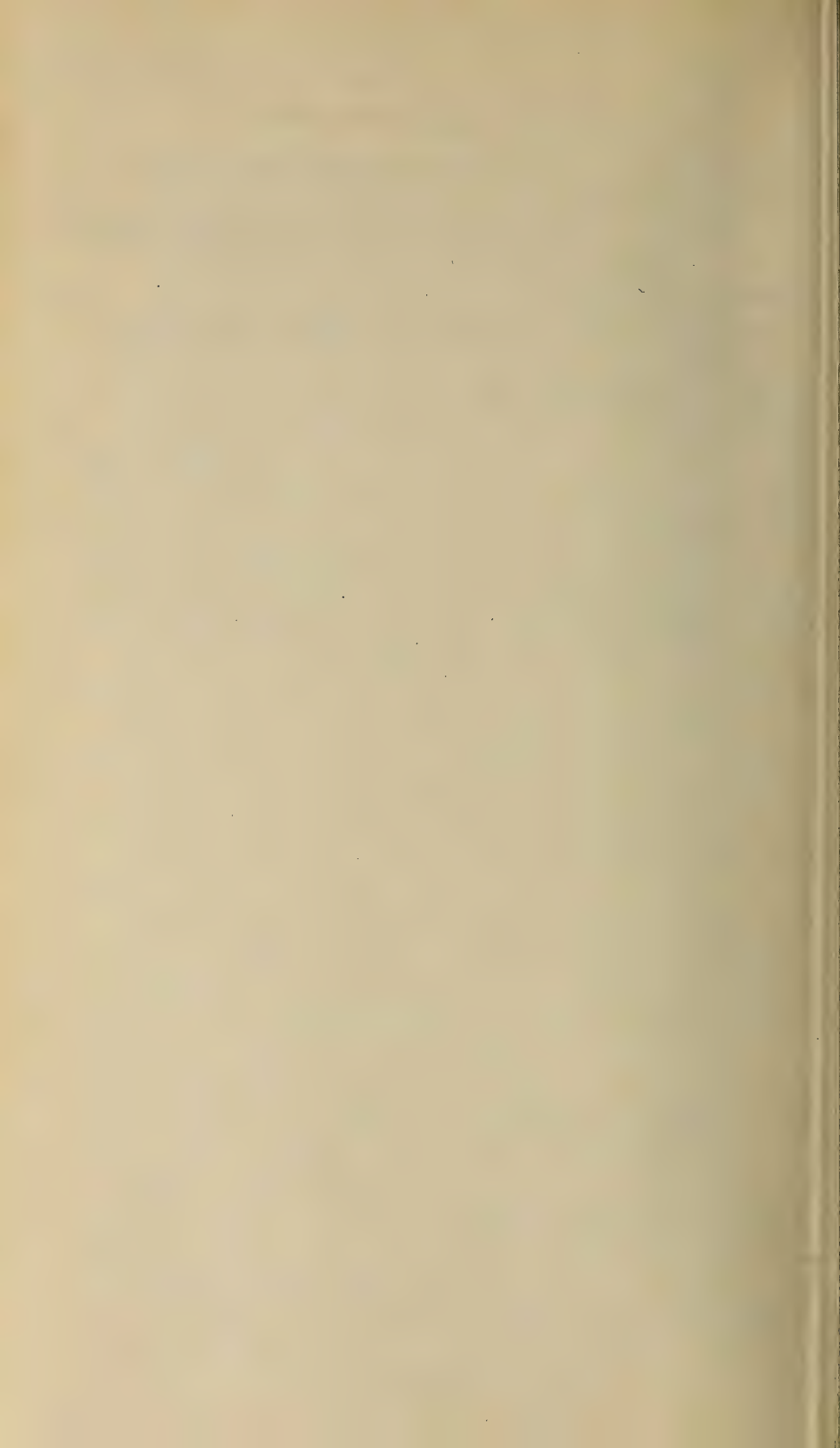
c. Traffic.

d. Other administrative details.

5. *Command posts.*—Location, including those of next lower units.

16-67. PRINCIPLES APPLICABLE TO THE DEFENSIVE.—

Many of the principles which apply to offensive combat have equal application in the defensive. These include: Security; reconnaissance; maintaining contact with, and mutual support of adjacent units; establishing observation posts; service of supplies; communication; etc. They have not been discussed in their application to defensive combat except insofar as is necessary for clearness or when they vary considerably in their application.



SECTION XII

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16-68. *GENERAL*.—The types of field fortification described in this section are limited to those of a hastily prepared nature. For more detailed discussion of the subject, see War Department Engineer Field Manual, Volume II, Part Two.

16-69. *OBSTACLES*.—*a*. Obstacles are an important element of the defense, provided they are suitably located and are covered with protective fire. An excellent example of obstacle is a barbed wire entanglement, parallel to, and protected by bands of machine-gun fire from guns located on the flanks of the defensive position (see fig. 9).

b. The simplest form of barbed wire entanglement, requiring minimum time and effort to construct, consists of one or more strands (trip wires) placed eight or ten inches above the ground 50 to 100 yards in front of a defensive position. It is most efficient when concealed in tall grass or other vegetation. Wire for this form of entanglement can usually be obtained locally.

c. Another simple form of wire obstacle, but requiring more time to construct, is a three to six strand barbed-wire fence. It can be made more efficient by erecting two or more trip wires in front of it.

d. Obstacles should be outside hand-grenade range (50 yards), so that the enemy may not approach close enough to throw grenades into the position. They should be concealed and be constructed at an angle to the position so as not to reveal its location.

16-70. *TRENCHES*.—*a*. *Fox holes*.—The fox hole, or individual pit, is the cover dug by the individual when stopped by fire. When completed, it is usually about 6 feet long, 2 feet wide, and about 18 inches deep.

b. When an offensive is definitely stopped, fox holes constitute the first cover constructed. These are later deepened, enlarged, and con-

FIELD FORTIFICATIONS

nected to form squad trenches. Later, these squad trenches are widened and deepened into field works and obstacles are placed in front of them to afford better protection.

c. Before the construction of any type of trench or emplacement, it must be determined, by taking the prone position, that the position affords an unobstructed field of fire to the front.

16-71. *EMPLACEMENTS*.—An emplacement is a prepared position for the accommodation of supporting weapons. Initially, a shallow hole is dug for the weapon, the dirt being thrown in front to form a parapet. This hole affords protection to the weapon and its operating personnel. As time is available, the hole is deepened and the parapet made stronger. Finally, as may be necessary, the emplacement is covered overhead with timber and dirt for protection from shell fragments, and camouflaged for better concealment.

16-72. *CAMOUFLAGE*.—*a.* Camouflage is concealment of location and deception as to identity and purpose.

b. Camouflage material usually consists of brush, grass, and branches. The most important consideration for effective camouflage is the initial choice of position. Varied terrain offering vegetation of different kinds and colors, with gullies, knolls, buildings, etc., offers far better possibilities for concealment than uniform terrain such as a wheatfield. In using brush, branches, trees, etc., it must be borne in mind that the color changes as they die and new materials must be provided daily.

c. The following provisions are important when camouflage is employed:

(1) The shape of the camouflage must be such as not to form a regular geometrical figure when viewed from a distance.

(2) The color should blend with the surrounding terrain. Fresh dirt, and grass matted or lying flat, appear lighter than normal.

(3) Shadows are easily detected on air photographs. Camouflage should not cast large or regular shadows.

(4) Dummy positions and guns will deceive an enemy.

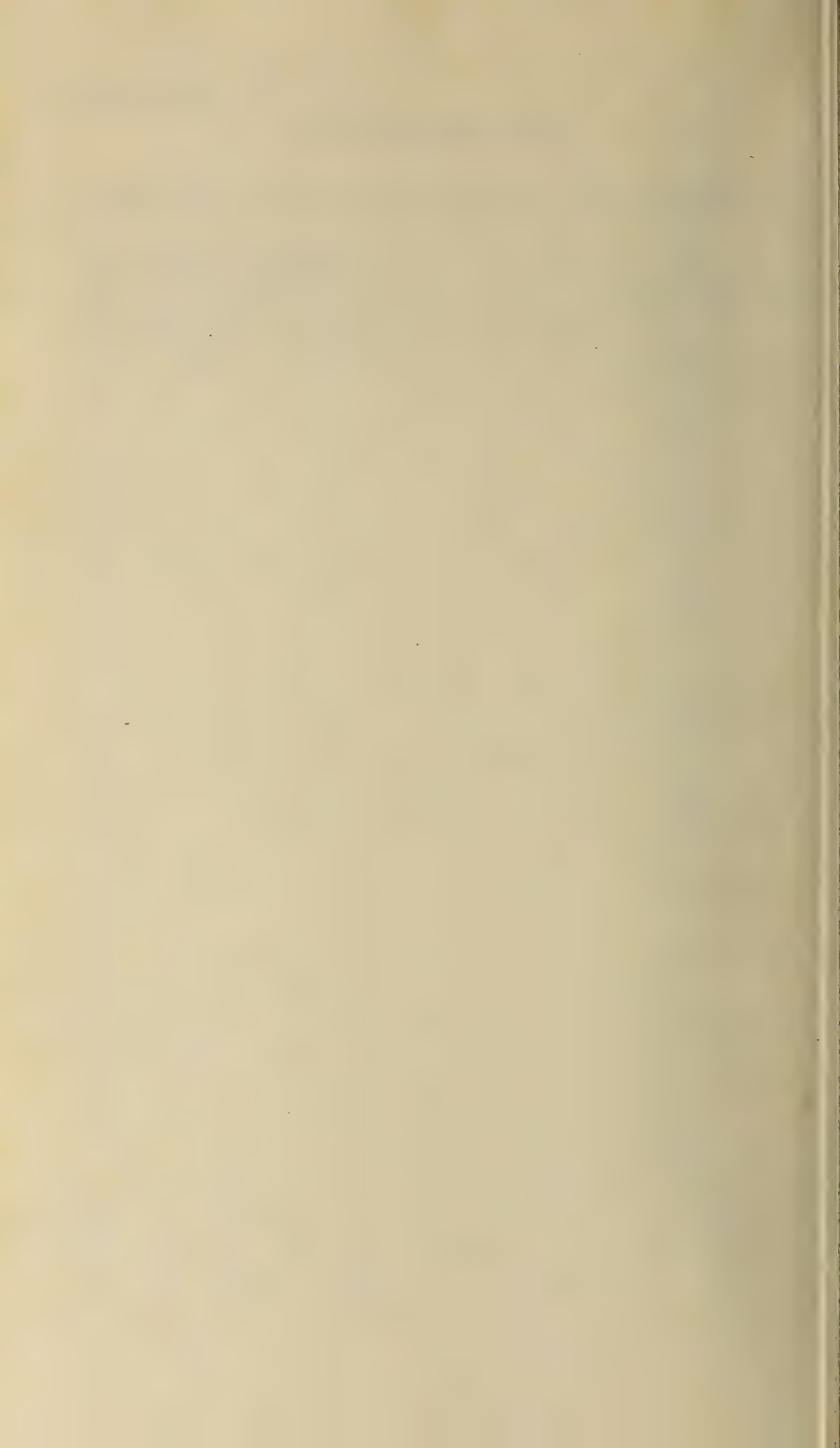
(5) The texture of the camouflage must be the same as that of the surrounding terrain, as any difference shows up on an air photograph. Two objects, of the same color, one rough, the other smooth, will show up differently in a photograph. The smooth object reflects light and will show up lighter than the rough object.

(6) Paths leading to well concealed positions will disclose the positions.

THE PIONEER SECTION

(7) Camouflage must be constructed with skill as poor camouflage is frequently worse than none at all.

16-73. *THE PIONEER SECTION*.—This section will assist units in field engineering work requiring skilled artisans and special equipment, such as demolitions, construction of observation posts, and protection of command posts, laying out the trace of field works, giving necessary instruction to working parties, etc.



SECTION XIII

THE RIFLE COMPANY IN DEFENSE

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16-74. *A FRONT LINE COMPANY IN DEFENSE* (see fig. 9).—*a.* It is exceptional for an unsupported company to defend a prepared position except in operations against irregulars, or when serving as the garrison of a detached post outside the limits of an outpost position. Consideration is here given to the functions of the companies of a battalion in the defense of a position. In defense, companies are disposed in depth as in attack. Those in the forward position are called front line companies. The company in rear is the reserve. The duties of the reserve company in defense are discussed in par. 16-75.

b. The defensive area assigned a front line company is usually from 250 to 500 yards in width, and 100 to 300 yards in depth.

c. The company is usually deployed in three lines, as follows:

- (1) Local security (line of observation).
- (2) Firing line (main line of resistance).
- (3) Support line.

d. These lines should be regarded merely as a convenient way of indicating the forward limit and the depth of the position to be held, and for coordinating the defensive arrangements of adjacent units. The lines are not physically occupied by troops along their entire length; the defense plan provides for holding areas or tactical localities whose forward parts lie generally along a given line. Such arrangement affords better protection from enemy fire, provides more concealment, and permits the employment of mutually supporting fires.

e. Limiting points.—Points where the several lines in a defensive position cross the unit boundaries. They are used to insure coordination between the adjacent units; are designated by markers on the ground, and by an encircled "x" on the map, marked "LP."

f. Strong point.—(1) Normally, an area organized and held by a company disposed in three or more combat groups is called a strong

THE RIFLE COMPANY IN DEFENSE

point (see the squad and platoon in defense, chapter 15). A strong point generally includes two lines, the firing line and support line. It may, if its primary task is the defense of a flank, also include the battalion reserve line.

(2) A strong point is always organized for all round defense if the terrain permits. Obstacles should cover all approaches but should not disclose the position of the defensive works, or interfere with maneuver for counterattacks.

g. Local security or line of observation.—Local security is usually provided by observers and by small reconnaissance patrols sent out from front line units.

h. Firing line (main line of resistance).—(1) This is the forward limit of the battle position and its location is of utmost importance. Its trace is usually along the forward slope of high ground and conforms to the contours. It should be impossible for the attacker to reach this line without passing through the concentrated fire of all defensive weapons.

(2) Usually 2 platoons (forward combat groups) of a 3-platoon company occupy the firing line and each ordinarily defends a front of from 100 to 250 yards.

i. Support line.—(1) Normally, the remaining platoon of a 3-platoon company establishes the support line. The location of support platoons of front line companies determines the location of the support line. It is usually 100 to 300 yards in rear of the firing line (main line of resistance). If closer than 100 yards, hostile fire directed at the firing line will also strike the support line. If located more than 300 yards in rear, the support will not be able to render timely and effective assistance to the firing line.

(2) When the support line is located on the forward slope, it can cover, by fire, the flanks, and the unoccupied interval between elements of the firing line. When the terrain does not afford a suitable position for the support on the forward slope or when the principal task of the support is to counterattack, it is located on the reverse slope.

16-75. *THE RESERVE COMPANY IN DEFENSE.*—*a.* The reserve company is assigned to defend all or a part of the battalion reserve line, usually located from 300 to 600 yards in rear of the support line. The method of organizing the reserve line is similar to that prescribed for front line companies. The reserve company is so located and disposed as will enable it: To support its own and

THE RESERVE COMPANY IN DEFENSE

adjacent front line elements; to eject by counterattack all hostile elements which penetrate the position; and to coordinate its actions with those of adjacent reserve units.

b. The combat groups of the reserve company are so located and disposed along the battalion reserve line as will enable them to cover intervals between the strong points of front line companies.

THE BATTALION IN DEFENSE

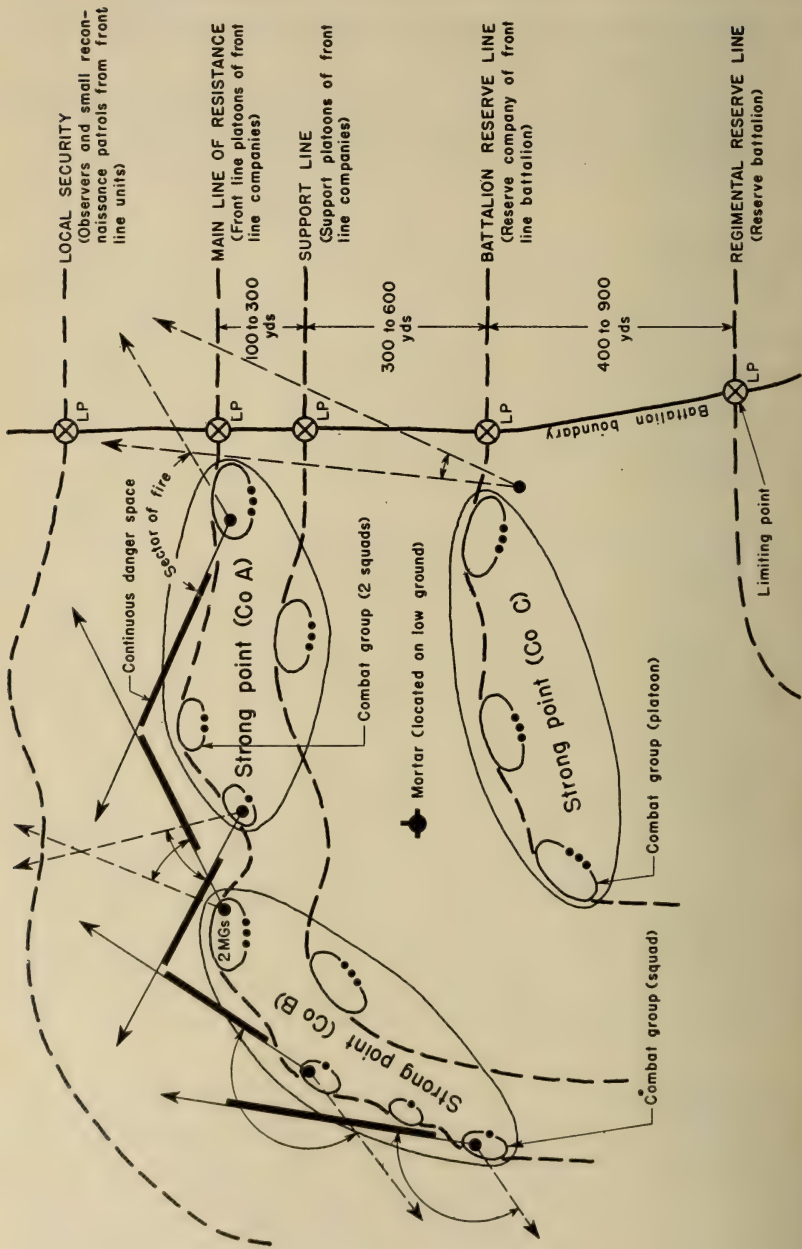


FIGURE 9.—Battalion center of resistance on left flank of a defensive position.

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16-76. *ELEMENTS OF THE DEFENSE* (see fig. 9).—When the battalion deploys for defensive combat, the battalion commander provides a security detachment, a holding force, and a reserve.

16-77. *SECURITY*.—Each front-line or reserve battalion is responsible for its security (see par. 16-74 *g*). When local security is considered insufficient an outpost must be established (see outpost instructions, chapter 12).

16-78. *THE HOLDING FORCE*.—In defense, the holding force includes all troops not in the reserve. In the assignment of their troops the battalion commander details certain companies to hold the battalion main line of resistance. He places his rifle companies upon naturally strong terrain features which are to be organized as strong points. Machine guns should be located in positions from which they can place mutually supporting bands of fire across the entire front, cover the main approaches, and fire on the attacker at long range (see section XIX). The general line of obstacles is so placed as to arrest the hostile attack where it is exposed to flanking machine-gun fire. Necessary adjustments are made to combine the fighting power of all combat groups, strong points, and machine guns into a powerful, well coordinated whole, capable of effective resistance and of rendering mutual support to adjacent units. A position occupied and defended by a battalion is called a center of resistance. It normally includes three strong points.

16-79. *THE BATTALION AS A RESERVE FOR A REGIMENT OR BRIGADE IN THE DEFENSE*.—The principles which govern the employment of a company in battalion reserve apply to a battalion in regimental or brigade reserve (see par. 16-75).

SECTION XV

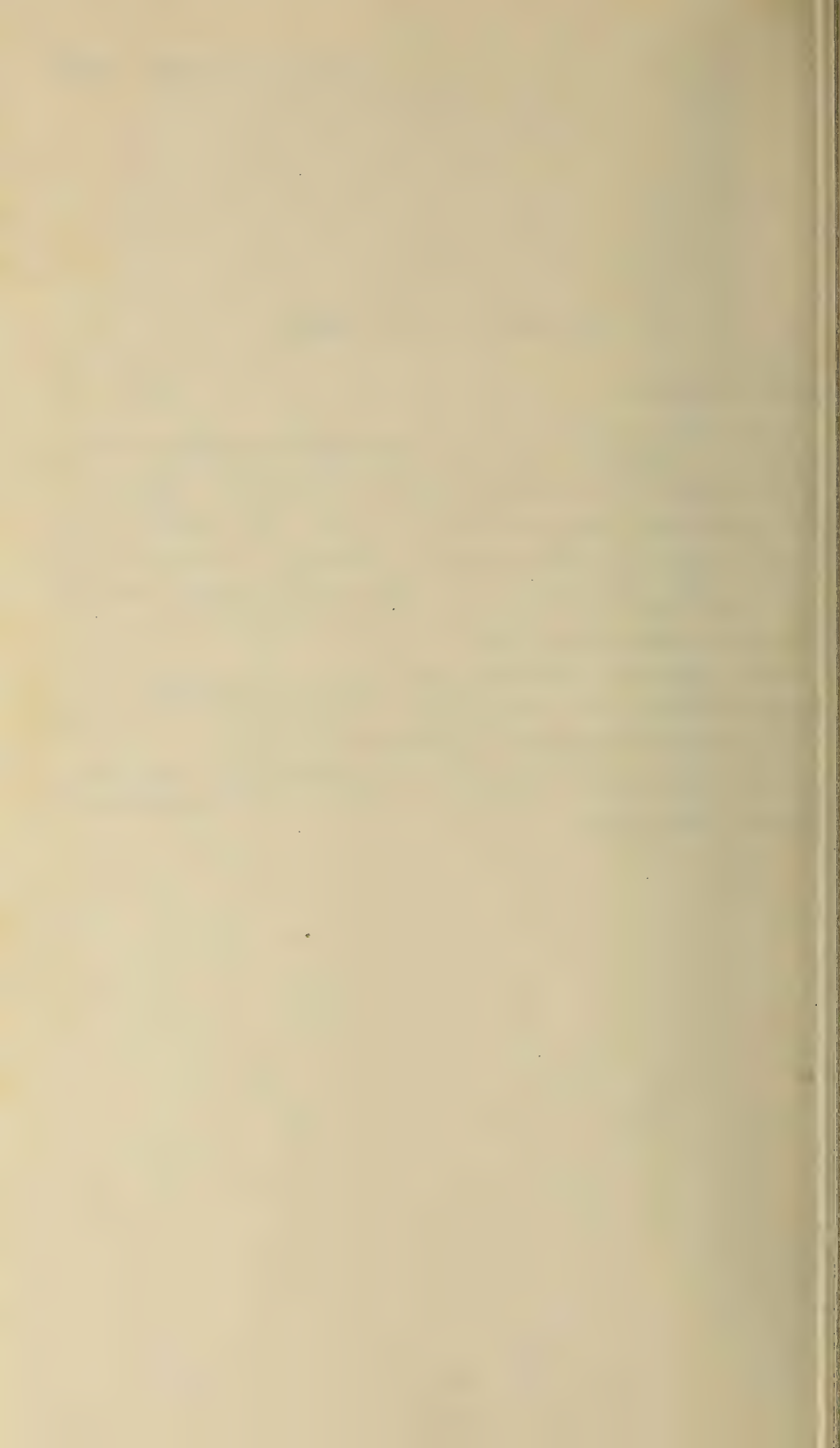
THE REGIMENT IN DEFENSE

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16-80. *EMPLOYMENT*.—When the regiment is deployed for defense, or to organize a defensive position, it usually employs two front line battalions to defend the battle position (the front line area) and holds one in regimental reserve, or when one battalion is in brigade reserve, the battle position is occupied by one battalion and the other is in regimental reserve. Deployment is usually made in four lines: Main line of resistance, support line, battalion reserve line, and regimental reserve line.

16-81. *CONDUCT OF THE DEFENSE*.—*a*. The regimental commander influences the action primarily by employing his reserve at the proper time and place and in the proper direction.

b. Except in emergencies, the reserve is employed only upon orders from the regimental commander, or in accordance with a prearranged plan for counterattack.



SECTION XVI

THE BRIGADE IN DEFENSE

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16-82. *BRIGADE IN DEFENSE*.—*a*. The principles governing the regiment in defense are applicable to the brigade.

b. The brigade reserve usually consists of a battalion from one of the regiments. It is placed in rear of the regimental reserve line, where it is not exposed to fire directed against front line units, and is held in readiness to render support whenever it may be required.

SECTION XVII

WITHDRAWAL FROM ACTION

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16-83. *DEFINITION*.—A withdrawal is the deliberate breaking of contact with the enemy in battle as a preliminary to retreat or retirement.

16-84. *TIME OF WITHDRAWAL*.—A withdrawal by daylight involves such heavy losses and so much disorganization that as a rule it is preferable to hold out until nightfall and to effect the withdrawal under cover of darkness.

16-85. *DAYLIGHT WITHDRAWALS*.—When a daylight withdrawal is necessary, front line troops are withdrawn by echelon and reorganized as soon as the covering force, composed of the supports and reserves, has occupied the covering position. The overhead fire of supporting weapons, and the use of smoke screens, are the most effective means of covering withdrawal from action. The selection of successive covering positions is usually necessary. For methods applicable to a daylight withdrawal see conduct of rear guards, chapter 12.

16-86. *NIGHT WITHDRAWALS*.—When withdrawal is effected at night, supports, reserves, and the greater part of the front line troops are successively withdrawn to designated assembly areas. The front lines are lightly held by small detachments which, as necessary, simulate great activity and endeavor to maintain the impression that the normal garrison is alert and ready for action. These small detachments are quietly withdrawn before daybreak.

SECTION XVIII

SMALL WARS

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16-87. *GENERAL*.—Small wars embrace both regular and irregular operations.

a. Regular operations involve small bodies of trained and organized troops on both sides.

b. Irregular operations involve the employment of regular troops against unorganized or partially organized forces, composed of independent or semi-independent bands.

16-88. *STRATEGY OF SMALL WARS*.—The strategy of small wars may be divided into six general phases as follows:

(1) Seizure of ports or border towns commanding routes of trade or entrance.

(2) Seizure of interior cities commanding the resources of the territory and the establishment therein (or at other suitable points) of bases of supply.

(3) The division of the theater of operations into military districts.

(4) Operations based on a captured city or fortified base of supplies against the remaining opposition.

(5) Seizure of livestock and supplies.

(6) Seizure of all arms.

16-89. *TACTICS EMPLOYED*.—*a. Own forces*.—The tactics employed are, in general, those prescribed for the smaller units; however, they must be adapted to meet the requirements of the situation. Frequently the enemy's own methods may be used to advantage.

b. Enemy forces.—Irregulars have little or only crude training and are under nominal and loose leadership and control. They assemble, roam about, and disperse at will. They endeavor to win by stealth or by force of superior numbers, employing ambushes, sudden dashes or rushes, and hand-to-hand fighting.

SMALL WARS

c. Preparation.—In general, the service of information will be insufficient; adequate reconnaissance will rarely be practicable; therefore, operations should not be undertaken hastily; every preparation should be made to strike suddenly and to inflict the maximum punishment.

16-90. *FORMATIONS.*—*a. In open country.*—Where surprise is not probable, troops may be marched in column of squads preceded, within sight, by a squad as an advance party.

b. In close country.—(1) Where surprise is possible, the troops must be held in close formation. The use of flank patrols becomes difficult. Occasionally an advance party, never less than a squad, may be sent out. In general, however, such a party accomplishes little, since an enemy intent on surprise will permit it to pass unmolested and will fall upon the main body.

(2) When the road or trail is narrow, the column of twos or files is a convenient formation (see chapter 15 and fig. 5, chapter 15). If rushed from a flank, such a column will be in readiness to face and fire toward either or both flanks; if rushed from the front, the head of the column may be deployed, the rest of the column closing up to support it; to protect its flanks and rear; or to maneuver around the hostile position to destroy the enemy or to cut off his line of retreat.

(3) The column may be broken into two or more approximately equal detachments separated on the march by distances of 50 to 100 yards. As a rule, the detachments should not consist of less than 25 men each. With this arrangement of the column, it will rarely be possible for an enemy to close simultaneously with all the detachments, one or more being left unengaged and under control to support those engaged or to inflict severe punishment upon the enemy when he is repulsed.

16-91. *CAMPS AND BIVOUACS.*—The site for camp or bivouac should be selected with special reference to economical and effective protection against surprise. Double sentinels are posted on the avenues of approach and the troops sleep in readiness for instant action. When practicable, troops should be instructed in advance as to what they are to do in case of attack at night.

16-92. *NIGHT OPERATIONS.*—Night operations are frequently advisable. With the small forces employed, control is not difficult. Irregular troops rarely provide proper camp protection, and they may frequently be surprised and severely punished by a properly conducted night march and attack.

SECTION XIX

RIFLE-COMPANY WEAPONS

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16-93. *RIFLE-COMPANY WEAPONS*.—*a.* Each rifle company is equipped with the following types of weapons:

- (1) Springfield rifle (United States Rifle, Caliber .30, Model 1903).
- (2) Browning automatic rifle.
- (3) Bayonet.
- (4) Automatic pistol, caliber .45.

b. In addition, one or more of the following may be provided:

- (1) Thompson submachine gun, caliber .45.
- (2) V. B. Rifle grenade, Mark I (now obsolescent), (a high-explosive grenade).
- (3) Hand grenade, Fragmentation, Mark II (a high-explosive grenade).
- (4) Chemical agents (grenades, etc.)

c. For information pertaining to these weapons, which is not treated in this Manual, refer to:

- (1) Publications issued by the Ordnance Department, U. S. Navy.
- (2) Chapter 19, Landing Force Manual.
- (3) War Department publications in the possession of officers of the U. S. Marine Corps (list in chapter 1).

d. It is seldom desirable to arm more than one man in each squad with high explosive hand grenades. He must be calm, courageous, and skilled in their use. Few men can throw a grenade beyond their dangerous bursting radius. Promiscuous throwing of hand grenades by partially trained, excited men, is more dangerous to friendly troops than to the enemy.

e. The effectiveness of the pistol in combat is generally overestimated.

f. Rifles and pistols are usually included in the armament issued to machine gun and artillery units.

SECTION XX

SUPPORTING WEAPONS

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NOTE.—The supporting fires of aviation are included in Section XXI.

16-94. *TYPES OF SUPPORTING WEAPONS*.—The supporting weapons employed by ships' landing forces are: Machine guns, 37-mm guns, 81-mm mortars, artillery, and aircraft armament. The fires they deliver are called supporting fires.

16-95. *CONTROL AND COORDINATION*.—The battalion commander is responsible for the coordination of the fires of his supporting weapons, including weapons temporarily attached, with the supporting fires of other battalions.

16-96. *MACHINE GUNS*.—*a*. Machine guns of assault battalions should be sited, whenever practicable, to secure:

(1) Surprise.—By concealment in the selection and occupation of positions, and by the time of opening fire. Unexpected machine-gun fire at short range is particularly effective.

(2) Flanking fire.

b. Machine guns of assault battalions must be used aggressively and in close support of the attacking riflemen. This may be accomplished by attaching them singly or by sections to the assault rifle companies. Guns so attached are subject to the orders of the commanding officer of the rifle unit. The guns in battalion reserve may be attached to the reserve rifle company or held under the direct control of the battalion commander.

c. When moving forward, the machine-gun unit attached to an assault rifle company usually marches in the vicinity of the support platoon. Whenever the rifle company engages in a fire fight the machine guns, unless otherwise directed, enter the firing line. The battalion commander may order his reserve machine guns into the firing line as a part of the reserve rifle company or as part of an assault company.

SUPPORTING WEAPONS

d. On the defensive, machine guns are usually placed in the combat groups, either singly or in pairs, so as to cover the front and flanks of the combat groups, and the front and, if practicable, the flanks and rear of adjacent units. Machine guns should be sited so as to deliver interlocking bands of fire along the front of obstacles and to enfilade the enemy when he is held up by the obstacles (see fig. 9). Some machine guns should be echeloned in depth in rear of the firing line so as to deliver flanking fire against hostile elements which penetrate the position, and to fire through intervals between combat groups.

e. When the fire power of all the machine-gun units of assault battalions is essential to the successful advance of rifle companies, such machine guns of the assault battalions as have previously been given antiaircraft missions will be assigned in direct support of the rifle companies. Machine-gun antiaircraft fire should then be provided from additional units of reserve battalions.

f. Carts should be used to transport the guns and ammunition as near to the initial firing positions as freedom from enemy observation will permit and also in subsequent forward movements.

16-97. *SPECIAL-WEAPONS PLATOON.*—*a.* This platoon contains the 37-mm gun and 81-mm mortar.

b. Whenever practicable, these weapons should be located in defiladed positions, where good observation is convenient to the firing positions and control is possible by voice or by signals.

c. The maximum range of the 37-mm gun is 1,800 yards. Its accuracy and penetrating power, as well as its effective diameter of burst of 10 yards, make it a good weapon for employment against definitely located machine guns, boats, and similar targets.

d. The high trajectory and accuracy of the 81-mm mortar enable it to fire over the heads of friendly troops, and to reach targets defiladed from artillery fires. The ease and rapidity with which the mortar can be landed from boats make it a good substitute for close artillery support during the initial stages of landing operations. It is particularly useful against targets not accurately located, such as machine guns in woods, enemy on reverse slopes, etc. The 7-pound projectile has a maximum range of 3,300 yards and a diameter of burst of 25 yards. The 14-pound projectile has a maximum range of 1,300 yards and a diameter of burst of 40 yards. It is unsafe to deliver supporting fires closer than 200 yards from friendly troops not protected by adequate cover.

ARTILLERY

e. The special-weapons platoon must be prepared to fire effectively on transient targets, which appear and disappear quickly. Continuous watch must be maintained for targets, and to locate suitable routes of advance, and new or alternate firing positions.

f. The platoon usually moves forward by bounds from position to position, in close support of the assault companies. Such moves should be initiated by the platoon leader, the battalion commander being notified of the movement.

g. The special-weapons platoon of a reserve battalion normally supports the attack from initial positions. When its fire is masked by assault units, it reverts to its own battalion control.

h. The characteristics of the mortar and gun as described above indicate how these weapons should be employed in the defense.

16-98. *ARTILLERY*.—*a.* On the offensive, artillery fire may be divided into two general classes: (1) Artillery preparation; (2) Artillery support. These classes of fire are based entirely upon the phases of the infantry action. All fires delivered prior to the time the infantry crosses the line of departure are included in the preparation; all delivered from the moment the assault line crosses the line of departure until the objective of the attack is attained are called supporting fire. The time of commencement and duration of an artillery preparation must be prescribed.

b. The mission of the artillery preparation is the destruction or neutralization of the hostile artillery, communications, and front line field works within the area assigned for preparation.

c. A long preparation deprives the attack of the advantage of surprise. The period allotted to the preparation will be influenced by the availability of ammunition.

d. To be able to furnish close support in the attack the artillery must be displaced forward as the attack progresses. An accompanying gun (an artillery piece that accompanies the rifle units) is used on rare occasions when required. It usually employs direct laying and generally fires at ranges less than 1,500 yards.

16-99. *PRELIMINARY BOMBARDMENT AND SUPPORTING FIRES*.—Prior to the time when leading (assault) platoons cross the line of departure, the supporting weapons lay down a preliminary bombardment on the hostile positions. The 81-mm mortar is particularly useful for this purpose because of its high angle of fire.

SECTION XXI

AVIATION

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16-100. *AVIATION*.—Aircraft can be used in ship's landing-force operations for the following purposes:

a. Reconnaissance.—(1) Airplane reconnaissance by aviation personnel, to include:

(a) Aerial photographs of landing beaches, terrain features, towns, and enemy installations.

(b) Locating enemy supply distributing points, artillery positions, organization of the ground for defense, communications, etc.

(c) Locating and reporting hostile troop movements.

(d) Location of the front lines.

(2) Airplane reconnaissance by infantry commanders. Each commander should, whenever practicable, make an airplane reconnaissance of the area of operations prior to and during the operations. Such reconnaissance enables him to get a better mental picture of the terrain than by any method except by traversing the ground.

b. Attack on ground targets.—By machine-gun fire or bombs.

c. Transportation.—To include:

(1) Evacuation of the sick and wounded.

(2) Troop movements.

(3) Service of supply, and emergency dropping of food, ammunition, and other supplies.

d. Communication.—By dropping and picking up messages and dispatches, and transmitting messages by panels and by radio.

e. Air spot of the fire of supporting weapons.

f. Maintaining control of the air.

SECTION XXII

SERVICE OF SUPPLY

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16-101. *SOURCE OF SUPPLY.*—*a.* The method employed to supply ammunition, rations, and equipment to a ship's landing force operating ashore is usually one of the following:

(1) Use of the ship as a base from which supplies are received direct.

(2) Establishment of a base or distributing point ashore to which the ship sends supplies and from which units are supplied.

(3) Procurement locally of foodstuffs; other procurements, including ammunition and equipment, from the ship.

b. Combat operations.—During military operations involving combat, the governing consideration is the location and distribution of troops in their relation to the ship or distributing point. When necessary to operate inland the supply problem becomes more difficult, and if the ship is, or may be, required elsewhere it is generally necessary to establish a distributing point (supply base or depot) ashore, to protect it, and to guard the line of communications between the base and the troops which are being supplied.

c. National disaster.—When it is necessary to land troops required to render assistance in case of national disaster, cooked or uncooked rations can usually be sent ashore direct to organizations for distribution. Available kitchens or improvised galleys can be used. The supply of ammunition will not be a problem.

16-102. *TRANSPORTATION.*—In some situations where local transportation can be obtained, the supply officer of the organization secures trucks, pack animals, wagons, etc., as may be needed for the transportation of supplies from the beachhead to the distributing point or direct to the various units of the force. Where no transportation is available, carrying parties must be organized by the landing force. Such parties usually carry supplies by hand or on carts. The supply officer is responsible for coordinating the distribution and work of carrying parties.

SERVICE OF SUPPLY

16-103. *PERSONNEL FOR SERVICE OF SUPPLY*.—To be self-sustaining, every ship's landing force, should include a supply section (see organization of units in chapter 1).

16-104. *AMMUNITION SUPPLY*.—The munitions officer (usually the supply officer) is charged with the supply of ammunition. The impetus of supply is from rear to front. In some situations it is desirable to provide each rifleman with one or two extra bandoleers of ammunition. The munitions officer usually establishes a munitions distributing point conveniently located under cover, in rear of the organization to be supplied. Personnel from units to be supplied are used for the transportation of ammunition from the distributing point and for its distribution to the troops.

SECTION XXIII

MEDICAL SERVICE

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16-105. *ORGANIZATION*.—Every ship's landing force has, as an organic part, a medical section. For detailed organization see chapter 1.

16-106. *DUTIES*.—The duties of the force medical officer are given in chapter 1. For more detailed information concerning medical officers and other groups in the medical sections, see Manual of the Medical Department, U. S. Navy.

16-107. *LOCATION OF AID STATIONS AND HOSPITALS*.—
a. Local aid posts.—The Hospital Corps man assigned to each combat company will accompany the company into action and establish the local aid post under cover in the vicinity of the firing line. He will render first aid to the wounded and direct walking noneffectives to the battalion dressing station.

b. The battalion dressing station.—The battalion dressing station is established by the battalion surgeon in rear of the battalion position, along a route and at a location under cover near water and roads, which walking cases naturally pass in going to the rear. The normal route followed by wounded men is one leading to the rear along wooded streams, ditches, ravines, or other terrain features affording cover. It is called the "drift line of the wounded" and can, where such features exist, be determined after reconnaissance or a map study.

c. Regimental aid station.—When the regiment is acting alone, the regimental surgeon establishes a regimental aid station in rear of the battalion dressing stations, and along easily accessible routes for vehicles, litter bearers, and men walking to the rear. When the regiment is a part of a brigade this station is omitted and the personnel of the regimental medical section are utilized in the battalion dressing stations or in the advanced hospital.

d. Advanced hospital.—When a brigade is landed, an advance hospital should be established on shore as support to the battalion dress-

MEDICAL SERVICE

ing stations. The hospital ship should furnish the necessary personnel and field equipment. If the hospital ship is not present, the medical department of the fleet, force, or division flagship should provide a small hospital on shore when conditions require it.

e. Base hospital.—A ship will be used as a base hospital whenever practicable. If the landing force can not be based on a ship, an additional supporting hospital must be established. This hospital is known as the rear or base hospital in contradistinction to the advanced hospital. It is under the command of the force medical officer.



LANDING-FORCE MANUAL

UNITED STATES NAVY

1938

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CHAPTER 17

THE DEFENSE AND ATTACK OF CITIES RIOT DUTY, AND NATIONAL DISASTERS

(Reprinted 1941 with all changes up to and including No. 5)



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FOREWORD

The Landing-Force Manual, U. S. Navy, 1938, is published in nineteen chapters as follows:

CHAPTER 1. INTRODUCTION.

CHAPTER 2. INDIVIDUAL INSTRUCTION WITHOUT ARMS AND WITH ARMS (RIFLE, AUTOMATIC RIFLE, SUBMACHINE GUN, PISTOL, AND BAYONET).

CHAPTER 3. DRILL, THE SQUAD, PLATOON, AND COMPANY.

CHAPTER 4. FORMATIONS OF THE BATTALION, REGIMENT, AND BRIGADE.

CHAPTER 5. CART DRILL.

CHAPTER 6. DRILL, MACHINE GUN, CALIBER .30.

CHAPTER 7. DRILL, THE SPECIAL-WEAPONS PLATOON (37-MM GUN AND 81-MM MORTAR).

CHAPTER 8. DRILL, ARTILLERY.

CHAPTER 9. THE INFANTRY PACK, AND DISPLAY OF EQUIPMENT AND CLOTHING.

CHAPTER 10. CEREMONIES; AND MANUAL OF THE COLOR, SWORD, AND GUIDON.

CHAPTER 11. INTERIOR GUARD DUTY AND GUARD MOUNTING.

CHAPTER 12. MARCHES, SECURITY ON THE MARCH, AND OUTPOSTS.

CHAPTER 13. TENT DRILL AND SHELTER.

CHAPTER 14. FIELD SANITATION, PERSONAL HYGIENE, AND FIRST AID.

CHAPTER 15. EXTENDED-ORDER EXERCISES, COMBAT PRINCIPLES OF THE RIFLE SQUAD AND PLATOON, AND COMBAT SIGNALS.

CHAPTER 16. TACTICS AND TECHNIQUE OF THE RIFLE COMPANY AND INFANTRY BATTALION, REGIMENT, AND BRIGADE.

CHAPTER 17. THE DEFENSE AND ATTACK OF CITIES, RIOT DUTY, AND NATIONAL DISASTERS.

CHAPTER 18. PHYSICAL DRILL.

CHAPTER 19. SMALL ARMS MARKSMANSHIP.

LANDING-FORCE MANUAL

UNITED STATES NAVY

CHAPTER 17

THE DEFENSE AND ATTACK OF CITIES, RIOT DUTY, AND NATIONAL DISASTERS

NOTES

(1) Sections I and II of this chapter are based on Chapter 20, Small Wars Operations, Marine Corps Schools, 1935.

(2) Section III is based on Army provisions relating to Riot Duty.

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SECTION I

DEFENSE OF CITIES

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17-1. *GENERAL.*—*a.* A thorough knowledge of the principles applicable to the defense of cities is essential to the formulation of sound plans for the attack of a city.

b. Scope of section.—The tactics and technique of defensive combat as described in chapters 15 and 16 have application to the defense of cities. The purpose of this section is to describe certain features of defensive combat that are peculiar to the defense of cities.

c. Factors influencing the defense of cities.—These include:

(1) Whether or not an all around defense is required, and what land and water approaches are most dangerous to the defense.

(2) The location of water works, light and power plants and, if located outside of the city, the necessity for their protection by detached posts.

(3) Vital areas within the city that must be held, controlled, or protected.

(4) Buildings suitable for defense along the defense lines of the city.

17-2. *DEFENSIVE PLAN.*—*a.* The numerical weakness of ships' landing forces will normally limit their operations to the fixed defense of vital localities which include public utilities, government buildings, and other buildings particularly adapted for defensive purposes because of their construction and location. With the organization of key positions along the defensive line as a basis, other defensive measures are developed by arranging mutually protecting and supporting fires; the construction of obstacles; and the employment of security patrols. Areas lying outside the protected area are defended by fire and by sortie or counterattack. In general, no attempt should be made to prevent hostile penetration into all parts

DEFENSE OF CITIES

of the city, but the enemy must be promptly ejected when his presence is discovered.

b. Irregulars seldom attack a large, well garrisoned city, but such attacks have occurred, and every ship's landing force occupying a city must have a defensive plan. The defense may be assigned to a single tactical unit, and subsectors assigned to subordinate tactical units, so stationed as to be mutually supporting. Streets should not be chosen as boundaries between units unless assigned definitely to a unit. Divided responsibility results in uncertainty and indecision. In any event, the whole defensive operation should rest with a single commander. Troops in excess of those assigned to defensive tasks are conveniently located as a mobile reserve.

17-3. *DETAILS OF THE DEFENSE.*—*a.* After the general defense plan is decided, detailed provisions are made for security measures; for the conduct of the defense proper; for communication; and for sorties, counterattacks, and pursuit.

b. Security is of vital importance as in other military operations. See chapter 12 for the conduct of outposts.

c. Because of the lack of available troops, the defense of the whole city may be impossible. In such case, only such positions are occupied as may be readily defended. It may be possible to occupy a hill which commands the city, leaving the city unoccupied except by patrols to keep it clear of the enemy and to maintain order. Usually, however, it will be necessary to fortify some buildings or streets to guard against sudden attack and to prevent looting. Choice of the main line of resistance is governed by these considerations.

d. The final defense of the city should be based on the organization of one or more strong points, located in solid, well constructed buildings, which afford good fields of mutually supporting fire. Such buildings should be contiguous and so connected by protected covered routes as to make it difficult or impossible to cut them off. They constitute the bases from which counterattacks are launched for the recapture of the city.

e. Men should be quartered as near as possible to their battle stations. Each station must be in charge of a suitable petty officer. Men must know their battle stations, the general plan of defense, the parts of the front and flanks to be covered, and the location of other friendly detachments.

f. Plans to provide for counterattack under any likely development of the situation and for cutting off the retreat of hostile groups should be provided for.

SUPPLY

g. Inhabitants whose lives must be protected should be directed where to assemble when an alarm is sounded or whenever it appears that their lives are in danger.

17-4. *SUPPLY*.—*a.* Water must be provided in sufficient quantity for a prolonged defense. If wells are not available, some means of storing water must be provided, as streams are easily contaminated or diverted, and usually will be covered by hostile fire. The water supply should be so distributed as to be readily available.

b. Adequate food must be kept on hand, and galleys and storerooms included in the final defensive position. If several detached buildings are to be defended a food supply must be stored in each of them.

c. Ammunition must be provided at each battle station according to its probable requirements. In the case of stations not occupied except at a call to arms, the ammunition, if it cannot be safely stored at the position, must be carried to the stations when they are occupied.

17-5. *OBSTACLES*.—It will be found advantageous to construct obstacles, such as wire entanglements, to cover the approaches whenever by so doing the strength of the defense is thereby increased. (See section on Field Fortification, chapter 17.)

17-6. *COMMUNICATION*.—All communication equipment should be located in well protected places, in or near the headquarters of the unit to which it pertains. Radio service will usually be found less subject to interruption than the telephone. Civilians may be expected to report attacks to other friendly organizations within a few hours. Friendly natives are better messengers than members of the landing force, as they can pass through the hostile lines in the guise of peaceful citizens or even as enemy soldiers.

DEFENSE OF CITIES

17-7. USE OF WEAPONS.—Weapons adapted to close-in fighting such as hand grenades, Thompson submachine guns, and riot guns are particularly effective in street fighting. Machine guns on fixed mounts furnish bands of fire best suited to cover approaches and obstacles. As in other defensive works, this machine-gun fire, supplemented by fire of other weapons, forms a coordinated fire zone best suited to the scheme of defense. For an example of the defense of city blocks see figure 1. Sometimes machine guns are placed in high buildings or

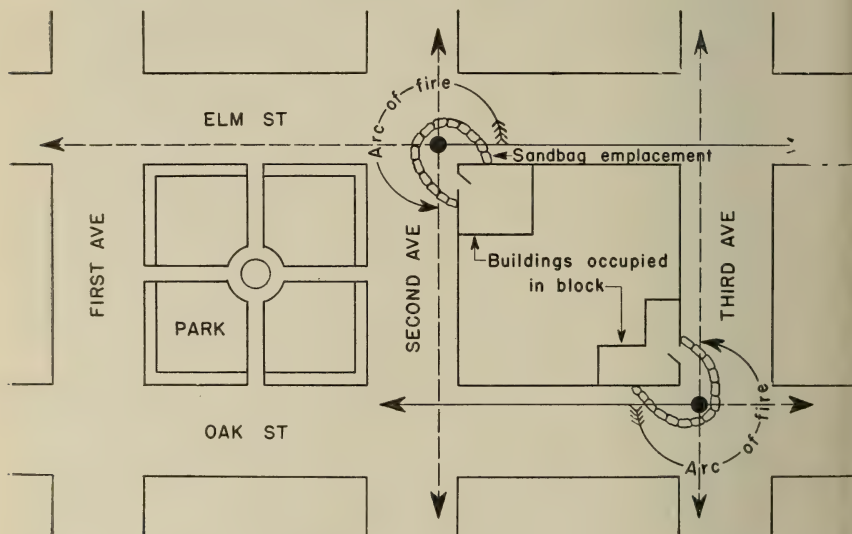


FIGURE 1.—Defense of city blocks.

NOTE.—This figure shows emplacements for machine guns and automatic rifles and their respective fields of fire. Emplacements at the diagonal corners of a city block permit an all-around defense of the block in addition to enfilading streets in four directions.

specially constructed towers, and thus have the advantage of being able to fire across roofs, into yards, and at targets that are defiladed from the weapons on the ground. Such guns are difficult to capture but may be silenced if located. Their fire is more or less plunging and is accordingly restricted, usually to special missions against area or point targets.

SECTION II

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17-8. *GENERAL.*—*a.* The tactics and technique of offensive combat as described in chapters 15 and 16 have application to the attack and occupation of cities. The purpose of this section is to describe certain features of offensive combat that are peculiar to the attack and occupation of cities.

b. A ship's landing force may be called upon to occupy a city which is held by revolutionists or other irregulars, for the following reasons:

- (1) For use as a base for further operations.
- (2) To suppress disorder.
- (3) To establish a neutral zone or refuge for the protection of life and property.
- (4) To evict irregular forces.

c. Ample provision should be made to accomplish the occupation with celerity even should unexpected resistance develop. A considerable show of force is often sufficient to overawe the irregulars and permit a peaceful, unopposed occupation of the city.

d. The seizure of a seaport may require the occupation of a beach-head sufficiently beyond the city to provide security against the weapons possessed by the irregulars.

e. Surprise may best be effected by a seizure at daybreak. In certain instances, opposition may thus be entirely avoided. Unexpected, prompt, firm action is, in a psychological sense, a surprise.

f. Whenever practicable, all buildings should be searched, particularly for weapons. To prevent sniping, this search should be conducted as the advance progresses through the city.

17-9. *USE OF COVERING FORCE.*—*a.* While the main body is attacking or occupying a city, it is advantageous to place a unit on

ATTACK AND OCCUPATION OF CITIES

the flank or inland approach of the city or on high commanding ground on the outskirts to insure that no outside hostile force enters the city to interfere with the action of the main body. This unit is called the covering force.

b. The covering force should gain its assigned position before the leading elements of the principal attacking force enter the city. This should be done without becoming involved in street fighting. It should gain a position from which it can:

- (1) Isolate the city and prevent hostile supports from entering it.
- (2) Command the line of retreat of the defenders.
- (3) Pursue the fleeing enemy.

17-10. *THE ATTACK ON A CITY.*—*a. Aviation.*—Prior to the attack, airplanes may be employed for reconnaissance and for photographing the city or such critical areas as are required to enable troops to familiarize themselves with the plan of the city, and the nature and location of sensitive points, strongholds, and obstacles or barricades. They may be used for dropping propaganda and proclamations or messages. During the attack and mopping up, planes may continue their reconnaissance, be assigned liaison missions between separated but cooperating forces, or be used to locate and attack defenders on the roofs, or to bomb assemblies or armed groups resisting the advance.

b. Methods of attack.—The methods of attack that will be most likely to succeed are:

- (1) Initially to seize as much of the city as possible, localizing any resistance which can be isolated and attacked in detail.
- (2) To deploy the entire force across one side of the city and to assign each street to a separate unit. To coordinate the advance, block by block, with parties simultaneously overcoming resistance on streets, searching buildings, and working forward over the roof tops, until the entire city has been covered.

c. The direction of attack and formation to be assumed is influenced by the direction in which it is desired to drive the opponent. Normally they should be driven toward districts where looting is the least profitable or where the destruction incident to operations will be less serious to innocent or friendly inhabitants.

17-11. *RAPID ADVANCE THROUGH CITY, ISOLATING ENEMY STRONG POINTS.*—*a.* In entering a city, the immediate objective may be to obtain possession of as much of the city as possible. Thus, when rioters are found occupying a locality in strength, that quarter is by-passed and isolated. Later, these isolated, detached areas are attacked and captured.

BLOCK-BY-BLOCK ADVANCE THROUGH CITY

b. Strategic or vital points within the city, including public utilities (light, water, and power plants) communication or transportation centers, and important buildings (such as banks, post office, custom house, armories, arsenals, and the U. S. Consulate) should be seized at the earliest moment. If the operation requires further movement inland, the railroad shops, freight yards, rolling stock, and important bridges leading inland, must be seized and guarded.

c. Certain areas or sections may require most, if not all, of the attention of the attacking force. These include forts or arsenals, military barracks, the police station, and other buildings previously mentioned. When these are isolated, other resistance or opposition may cease. Under certain conditions, the red-light district, the workers' quarter, the mill district, a club, park, or school may harbor the element which is causing trouble.

d. The hostile avenue of retreat should not be denied unless the capture or destruction of the hostile force justifies the loss of life and destruction of property involved in such action. The rapid occupation of the city requires that predetermined avenues of escape be made available to the defenders and that the advance of our forces naturally result in the hostile retirement along these selected routes. Once driven into the open country, hostile forces can be dealt with in accordance with normal application of tactical principles.

17-12. *BLOCK-BY-BLOCK ADVANCE THROUGH CITY.—a.* The plan of occupation should include: The plan of action for the whole command, general direction of advance, division of the city into zones of action, assignment of troops to each zone, retention of a reserve, protection of the flanks, disposition of prisoners and of arms found, and any special features.

b. The zones of action for the various units should be from one side of the city straight through to the other side. This may necessitate long, narrow zones but it will insure unity of command and avoid confusion. Main streets should not be selected for boundaries between zones, as a division of authority at such points is undesirable. If streets can not be definitely described and used for this purpose, conspicuous features of the town to indicate direction of advance and boundaries, coupled with a compass direction, will answer. The depth is fixed, and upon this factor depends the width assigned to any organizations. For instance, if the depth of the city in the direction of the advance averages 2 miles, a battalion should not ordinarily be assigned a width of more than two streets, i. e., the

ATTACK AND OCCUPATION OF CITIES

frontage of one entire block plus one-half the frontage of the adjacent block on each side.

17-13. *DETAILS OF OCCUPATION, BLOCK-BY-BLOCK METHOD.*—*a.* The battalion should be regarded as the working unit. Its duties include:

- (1) The clearing away of all opposition.
- (2) Searching for arms.
- (3) Collection of arms.
- (4) Providing a temporary guard for the occupied section until relieved by a permanent guard detachment.

b. The duty of clearing away all opposition and the search for arms is performed by the leading (assault) platoons or companies. The collection of arms, the supply of the guard, and any reinforcing of the leading units is performed by the supports.

c. The leading units should each be assigned zones of action. In the assignment of zones to battalions and units within battalions, the boundaries will usually be the median line half-way between streets. If a battalion has a single street assigned it, its zone will extend to the middle of the block on each side, and there will be no company zones. If it has two or more streets assigned, a company or platoon will be assigned one street as a zone of action.

d. The advance of the units in the assault should be simultaneous, block by block. No one of the leading units should advance beyond a cross street before the entire leading wave is ready to continue the advance.

e. During the advance the leading units may move through the streets, or through buildings and their adjoining yards. Each of these methods has disadvantages; the former presents a more favorable target to snipers, while the latter permits the men to get out of hand, leads to confusion and incompleteness of the work. A combination of the two methods may be used, especially in irregularly shaped towns, but the street method is deemed best, where practicable.

f. A company or platoon assigned as the assault unit should be divided into:

- (1) Street detachment.
- (2) Roof detachment.
- (3) Searching detachment.

g. Generally one or two squads will be sufficient for each of the above detachments.

h. The roof detachment is divided into sections, one for each side of the street. These sections gain the roofs at once and gradually

DETAILS OF OCCUPATION

advance, as far as practicable, from roof to roof, until the last roof of the block is reached. From this point the detachment disposes of any opposition located on roofs or in houses on the opposite side of the cross street or down the street on which it is operating. If the houses of a block are not adjoining or are not flat roofed, a regular advance of a roof detachment is, of course, impossible. The same effect will be produced by seizing the first roof in the block and, as the searching parties advance, each roof high enough to conceal the roofs beyond it is seized, successively. Depending on the construction, it may be necessary to occupy all roofs. The fire of this detachment must be directed to its front. Flank and cross fire will endanger friendly troops. The detachment remains on the roofs of the houses on the near side of the cross street until a new roof detachment has gained the roofs of the houses on the far side. When this action is about to be taken the old roof detachment should be so informed. The old roof detachment joins its main body when the new (advance) roof detachment is in place.

i. The searching detachment works in as many groups as practicable. Groups are designated by the officer in command of the street. These parties systematically search every building and courtyard and every room in every building within their zone of action. The principal object of this slow and deliberate occupation of the town is to seize all arms during the first stages of the occupancy, and thus prevent sniping and disturbances later on. The importance of this work must be impressed on the men. After the searching detachment has completed its work in the block and joined the street detachment, the officer in command should have a check made to discover losses. The signal of readiness for the next advance can then be given.

j. When the next cross street is reached the street detachment does not cross it immediately but, instead, responds from concealed positions to any hostile fire delivered from the adjacent block on the cross street. This action, combined with that of the roof detachments, should clear out any opposition on the cross street. After opposition on the cross street is disposed of and the roof detachment of the same organization has reached the tops of the houses at the near side of the cross street, word is sent to the officer commanding the street. After the searching detachment has completed its work he indicates by prearranged signal his readiness for a new advance. The battalion commander, or other designated officer (usually commander of base company), after assuring himself of

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the readiness of all troops, signals for the entrance into the next block, which should be made simultaneously by the whole line.

k. The supports should follow the leading units at a suitable distance (two or three blocks). Connecting files for communication with the leading units are kept on each street. As the leading units clear out the various blocks, guards should be detailed from the support to observe this part of the district and to watch the captured arms until the collecting detail has taken them away. Guards should immediately inspect areas assigned them to see that no houses have been overlooked by the searching parties, or are occupied by dangerous persons after the passage of the searching parties.

l. Special details should be made, under charge of an officer, for the collection of arms.

17-14. *ATTACKING A BUILDING.*—As a rule, a direct attack against a building is to be avoided. Artillery, mortars, dynamite, or grenades may be used against it, or if it is at some distance from other buildings, it may be set on fire. If the building is one of a block of about the same height, it may be attacked from the roof of an adjoining building. In this case, grenades may be dropped down the chimneys, or a skylight may be broken and grenades used to clear the rooms below. The attack of a building from the roof downward is much easier than from the ground upward. After securing an entrance there must be no pause in the progress from room to room and from floor to floor.

17-15. *SPECIAL EQUIPMENT.*—a. The following tools and equipment can often be secured and used to advantage: Shovels, flashlights, lanterns, crowbars, heavy sledge hammers, axes, pickaxes, saws, cold chisels, small ladders, tables, rope, railroad ties, rails, large timbers for battering rams, and explosives for demolition purposes.

b. Usually this special equipment will be in the possession of the pioneer section of the battalion.

SECTION III

RIOT DUTY

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17-16. *GENERAL.*—*a.* Federal troops will be called upon to perform riot duty only where the disorder is serious and widespread, and the civil authorities and State troops are unable to handle the situation. In the case of riot and disorder, however, they cannot be employed, except for the protection of Government property, unless so ordered by the President of the United States.

b. In case of wholesale and universal disorder in a town, city, or district, troops when properly ordered out will, in general, be required to carry out the tactics prescribed for the occupation of hostile towns and cities, or at least a modified form of these tactics. No exact rules can be prescribed; each case must be handled separately. The severity of the measures and precautions taken to obtain the desired result should be such as to reestablish law and order in the shortest practicable time, with a minimum of violence and bloodshed.

17-17. *DEFINITIONS OF CROWDS AND MOBS.*—*a.* Mobs develop from crowds which in most cases could be broken up by the proper application of crowd tactics. A crowd lacks organization and unity of purpose, and, if it is on mischief bent, requires only a leader to convert it into a mob. If it is compelled to move on and break up, there is usually little danger.

b. A crowd assembled for an unlawful purpose hesitates to commit itself to a course of unrestrained violence, even though some of its members may be guilty of violent acts, when they think they have a good chance to escape. It may be noisy and threatening, and should be kept well in hand because if left to its own devices is very likely

RIOT DUTY

to commit assaults and depredations which will excite it to the mob pitch. A crowd may be converted into a mob by—

(1) An apparent weakening of the forces holding a crowd in check, even though it be but momentary.

(2) A single piece of audacious violence successfully carried through.

(3) Two minutes' harangue by a fiery leader.

(4) The appearance on the street of a conspicuous and hated figure.

It is the business of the officials, civil and military, to see that this transformation does not take place, for the formation of a mob usually means bloodshed before order is restored.

c. A crowd is a group or number of separate groups, which is or may be disorderly and inclined to violence, but which has not as yet lost its collective sense of fear. A mob, on the other hand, is distinguished by the fact that, under the stimulus of intense excitement, its members have actually lost all sense of fear of the law and can only be brought to their senses by an overpowering demonstration of force.

17-18. *CROWD TACTICS*.—*a.* As a rule rifle fire should be used against a crowd only as a last resort.

b. For psychological effect, it should be evident to the crowd that there is a commander, that he has a plan, that he has the courage to act vigorously, and that he intends to use whatever force is necessary.

c. Having broken up the crowd, it is necessary to keep it moving. Patrols should be detailed to follow it and prevent small groups from collecting again. If any person or persons stand out as prospective leaders, and seem to be trying to excite the crowd, they should be arrested.

17-19. *MOB TACTICS*.—*a.* The methods to be employed against mobs differ from those required against crowds. Less dispersion of forces is allowed, more force must be used, troops must rely on the weapons of their profession and must be held well in hand; and sterner measures must be adopted.

b. In cases where military force is used for the protection of Government property or instrumentalities, the military commander who does not command the mob to disperse, and allow sufficient time for it to do so before taking life, will be very derelict in his duty.

FORMATIONS

A mob should not be harangued, bullied, or bluffed, and above all it should not be threatened or dared.

c. A mob usually should be attacked on one flank, depending upon the direction it is desired to drive it. When those in front would like to retreat but, because of the pressure from behind, are unable to do so, the mob should be attacked in the rear.

d. When rifle fire is resorted to, the aim should be low, so as to prevent shots going over the heads of the mob and injuring innocent persons that cannot get away. The number of rifles used in the firing should be no greater than is absolutely necessary. If there is firing from the rear of the mob, a few marksmen should be so placed as to be able to return the fire. A few good marksmen should be detailed to fire on windows or roofs from which firing comes or from which missiles are thrown. Care should always be taken to avoid firing into a group of innocent persons from which some rioter has fired.

e. Blank cartridges should not be used when combating a mob bent on violence, nor should a volley be fired over the heads of rioters even if there is little danger of hurting persons in rear. Such action will be regarded as an admission of weakness, or as an attempt to bluff, and may do much more harm than good.

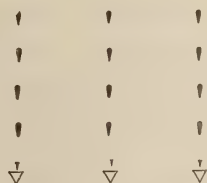
f. Bayonets are effective when used against rioters who are able to retreat, but they should not be used against men who are prevented by those behind from retreating even if they wished to do so.

g. A reserve should always be held out.

17-20. *FORMATIONS.*—*a.* If it should become necessary to charge a mob or move against it, a suitable formation should be taken which will depend somewhat upon the direction it is desired to drive the mob.

b. The following formations are suggested.

(1) Troops marching in parallel columns, heads of columns abreast, as indicated:



In this case the mob will be driven directly in front of the troops with a chance for them to disperse to the flanks.

RIOT DUTY

(2) Troops marking in parallel columns with the columns in echelon, as indicated:



In this case the mob will retreat in an oblique direction from that of the march of troops, the direction being away from the most advanced column. The formation has the advantage of enabling the more advanced columns to assist the others by flanking movements.

(3) Troops marching in parallel columns, those columns on each side of the center being echeloned to the rear so as to form a wedge, as indicated:



This formation has the effect of dividing the mob into two parts and may be of advantage when it is desired to handle the parts separately. It may be that the mob will thus be forced out into the open where the troops may attack from several directions at the same time.

(4) Any formation which permits the troops to take the mob in flank and rear is usually a desirable one. When it is remembered that being fired into from a flank or from the rear is trying to the morale of the best-disciplined troops, it will be readily appreciated that its demoralizing effect on a mob will be many times multiplied.

17-21. *CONDUCT OF TROOPS*.—Avoid the danger of hand-to-hand clashes and close-in fighting. Here the mob, because of its superior numbers, has all of the advantage. The troops are liable to be overpowered and disarmed. Keep the mob at such distance that the troops can employ their weapons and use their training and discipline to the best advantage. The men must be made to understand that in dealing with citizens they must be courteous, yet firm, in carrying out their instructions; that they must pay no attention whatever, nor appear to hear, insults or epithets from the crowd.

PLATOON TRIANGULAR FORMATION FOR RIOT DUTY

17-22. *PLATOON TRIANGULAR FORMATION FOR RIOT DUTY.*—*a.* The triangular formation indicated in figure 2 is recommended when it is necessary for a platoon to march through streets occupied by small isolated groups of rioters. In recommending this particular formation it is assumed that the rioters are not employing firearms and that the display of force or shock power (as differing from fire power) of an intact unit of marching men will disperse the small disorganized groups of rioters. In the event the rioters are employing firearms the advance through the streets will necessitate the employment of a regular attack formation.

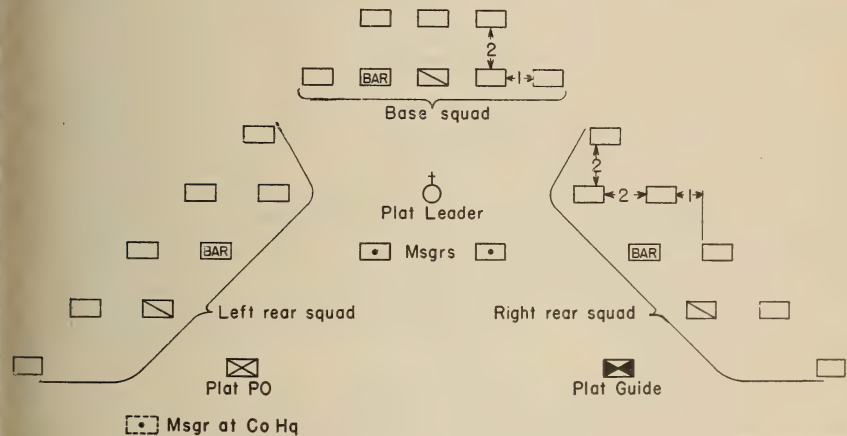


FIGURE 2.—Triangular formation for riot duty. (Distances and intervals between men are average and in paces.)

b. As far as practicable the formation should be in two ranks. Men in the front rank should be close enough together to prevent members of the mob from penetrating the interval between them and at the same time have enough space for the free use of their pieces. Men in the rear rank engage any members of the mob who may penetrate the intervals in the front rank, and replace casualties in the front rank.

c. Organization commanders will specify whether weapons are to be carried loaded or unloaded, and whether bayonets are to be fixed or not. Rifles are carried at the **high port**. If bayonets are not fixed the riflemen use the butt strokes or, in an emergency, use the rifle as a club. Automatic riflemen may be used to observe the mob for the possible appearance of men equipped with firearms, and to engage snipers who fire from buildings.

d. The leading squad is the base squad and rear squads regulate their movement on it.

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17-23. *SEGREGATION OF AFFECTED AREAS.*—*a.* If the disorder is confined to a particular locality or district, this section must be segregated. All gatherings must be immediately broken up, and individuals on the streets be required to keep moving. The streets must be constantly covered by patrols, and supports established at proper points. Special guards will be established at plants or buildings which may become the object of the mob's activities. All saloons and disorderly houses should be closed, and hardware stores containing firearms and ammunition must be closed and guarded.

b. Particular attention must be paid to the lighting system, telephone system, and water supply. Their sources and connections must be carefully guarded against interruption or destruction.

c. Fires must be particularly guarded against.

d. No person will be permitted to pass in or out of the segregated district without proper authority.

17-24. *INTELLIGENCE.*—An intelligence service will be established, and qualified civilians, or officers and petty officers in civilian clothes, must be freely employed for obtaining all needed information. Activities in other parts of the city must be carefully watched and care must be taken to prevent disorders or meetings which may develop into riots.

17-25. *LABOR DISPUTES.*—It may here be stated and emphasized that where the disorders and riots are due to trouble between opposing factions (as in labor disputes), the attitude of the military authorities should be one of strict impartiality. The object of the military authorities is to reestablish law and good order and not to become partisans of any faction or organization, and this purpose should be clearly impressed on all concerned.

SECTION IV

NATIONAL DISASTER (FIRE, FLOOD, ETC.)

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17-26. *NATIONAL DISASTERS*.—*a.* Depending on the extent of the disaster, the military may be called upon to take complete control or merely to assist local authority. In cases of disaster the express order of the President of the United States is not necessary to secure the aid of the military and in such cases the military is subordinate to the local authorities. Even if the local authorities have ceased to function, the State authorities still exist and the greatest tact must be exercised by the commander of the relief forces in his dealings with civilians. The military forces will always cooperate with the local authorities and be assisted by the Red Cross and civilian relief organizations. In the event of foreign disasters, the situation may be handled by our own forces present, or by those of a combination of friendly nations until taken over by the forces of the nation concerned.

b. For administrative purposes the city should be divided into districts, and each district assigned to an organization.

c. A national disaster implies that immediate and effective assistance must be furnished the local authorities and citizens. Circumstances will indicate the form of assistance to be rendered.

d. Among the first steps to be taken are the guarding of Federal buildings, the banking district, and the prevention of looting. Ghouls and looters should be dealt with summarily. In the event of a threatened food shortage, guards should be placed over food supplies in warehouses, wharves, railroad yards, and in transit through the city.

e. Working parties should be organized to succor the wounded and bury the dead. Civilians working in the ruins should be provided with distinguishing marks or brassards, and carry written authority. Saloons and liquor stores should be kept closed.

f. The water supply should be carefully tested and guarded against contamination. If the supply is in any way damaged, immediate steps should be taken for its early restoration.

NATIONAL DISASTER (FIRE, FLOOD, ETC.)

g. Fire-fighting parties should be organized. If no water supply is available, the spread of the fire can be checked by demolitions and backfires. Explosives for demolition purposes should be of a type that will not start fires upon detonation. Dynamite with an inert base is particularly suitable for this purpose. The specific sanction of the local authorities should be obtained, in writing, if possible, before buildings are demolished.

h. Provision should be made to shelter and feed the homeless and destitute. All available tents should be erected in camps under military control. Tents, ponchos, blankets, and shoes will be the principal articles required (see Article 83 (3) NR). Proper camp sanitation is of vital importance (see chapter 14, LFM).

i. Military telegraph and telephone lines should be installed where required, principally to connect district command posts with headquarters. Radio communication should be established as the situation requires and every effort made to reestablish outside commercial telegraph and telephone lines.

j. Issuing stations for rations should be established. They should be under the most experienced help available. Whether or not it is possible or advisable to issue cooked food to civilians depends upon the situation. Past experience indicates that when uncooked rations are issued free, civilians tend to accumulate large quantities by "repeating." As soon as opportunity permits, establish means for keeping accurate account of all stores or meals issued, to prevent such repetition as well as to insure a conservation of food supplies. When civilian restaurants are reopened, arrangements can be made to issue meal tickets at a low cost, or free of charge. Ration-issuing stations should be scattered over the city not more than a mile apart.

k. Transportation should be hired or obtained from volunteer offers. As a last resort, it may be requisitioned or seized.

l. The relief forces should include a medical detachment commensurate with the situation and forces available. This force should be composed of medical officers and Hospital Corps men, with necessary medical supplies. All sanitary measures should be given wide publicity and strictly enforced.



LANDING-FORCE MANUAL

UNITED STATES NAVY

1938



CHAPTER 18

PHYSICAL DRILL

(Reprinted 1941 with all changes up to and including No. 5)



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FOREWORD

The Landing-Force Manual, U. S. Navy, 1938, is published in nineteen chapters as follows:

- CHAPTER 1. INTRODUCTION.
- CHAPTER 2. INDIVIDUAL INSTRUCTION WITHOUT ARMS AND WITH ARMS (RIFLE, AUTOMATIC RIFLE, SUBMACHINE GUN, PISTOL, AND BAYONET).
- CHAPTER 3. DRILL, THE SQUAD, PLATOON, AND COMPANY.
- CHAPTER 4. FORMATIONS OF THE BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 5. CART DRILL.
- CHAPTER 6. DRILL, MACHINE GUN, CALIBER .30.
- CHAPTER 7. DRILL, THE SPECIAL-WEAPONS PLATOON (37-MM GUN AND 81-MM MORTAR).
- CHAPTER 8. DRILL, ARTILLERY.
- CHAPTER 9. THE INFANTRY PACK, AND DISPLAY OF EQUIPMENT AND CLOTHING.
- CHAPTER 10. CEREMONIES; AND MANUAL OF THE COLOR, SWORD, AND GUIDON.
- CHAPTER 11. INTERIOR GUARD DUTY AND GUARD MOUNTING.
- CHAPTER 12. MARCHES, SECURITY ON THE MARCH, AND OUTPOSTS.
- CHAPTER 13. TENT DRILL AND SHELTER.
- CHAPTER 14. FIELD SANITATION, PERSONAL HYGIENE, AND FIRST AID.
- CHAPTER 15. EXTENDED-ORDER EXERCISES, COMBAT PRINCIPLES OF THE RIFLE SQUAD AND PLATOON, AND COMBAT SIGNALS.
- CHAPTER 16. TACTICS AND TECHNIQUE OF THE RIFLE COMPANY AND INFANTRY BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 17. THE DEFENSE AND ATTACK OF CITIES, RIOT DUTY, AND NATIONAL DISASTERS.
- CHAPTER 18. PHYSICAL DRILL.
- CHAPTER 19. SMALL ARMS MARKSMANSHIP.

LANDING-FORCE MANUAL

UNITED STATES NAVY

CHAPTER 18

PHYSICAL DRILL

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SECTION I

FORMATIONS

Formations	Par.	Page
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18-1. **FORMATIONS.**—*a.* The following formation is recommended for physical drill, it being the simplest and least complicated and more compact than any other. The unit to be drilled is formed in column of threes or fours at close interval facing the instructor. In restricted spaces, as on board ship, it may be formed in column of twos.

b. At the command: 1. **Extend to the left**, 2. **MARCH**, the right squad (file) stands fast, with arms extended sideward. The second, third and fourth squads (files) from the right turn to the left and, taking up the double time, run forward to the original left, the second squad (file) taking two paces, the third taking four paces and the fourth taking six paces. All face to the front after taking the required distance, with arms extended sideward, the distance between the fingertips to be about 12 inches.

c. At the command: 1. **Arms**, 2. **DOWN**, the arms are lowered smartly to the sides. The men within each file are now covering in column at 40 inches distance and are too close to carry out the exercise.

d. At the command: 1. **Even numbers to the right (left)**, 2. **MOVE**, each even-numbered man stride-jumps to the right, squarely in the middle of the interval. In doing this he swings his right leg sideward, jumps from his left foot, and lights on his right foot, bringing the left smartly into position against the right.

e. To assemble, the instructor commands: 1. **Assemble**, 2. **MARCH**. At the command **March** all return to their original position in column on the double.

SECTION II

PHYSICAL DRILL WITHOUT ARMS

(Setting-up exercises, Swedish system)

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18-2. *GENERAL*.—*a*. All movements hereinafter described should be first carefully explained, laying stress upon their principal objects.

b. The instructor should then illustrate each position or exercise until thoroughly understood by the class.

c. *The starting positions*.—(1) After executing the starting positions by command, they may be repeated as many times as desired by giving the caution: **BY THE NUMBERS**, and then substituting, for the commands of execution given the first time, the numbers: **ONE, TWO, ONE, TWO**, and so on, or **ONE, TWO, THREE, FOUR, ONE, TWO, THREE, FOUR**, and so on, as appropriate.

(2) When movements are executed to both left and right, sufficient numbers are used to complete the movement to both sides.

(3) For common faults in the combined starting positions of the arms and legs, see the references indicated.

d. *Exercises*.—(1) In conducting exercises, the starting position is taken on command; each movement is then executed on command; each movement may then be repeated by giving the caution and numbers as in subpar. *c* (1) above.

(2) When an exercise is executed to both sides, it should be first conducted to the left and then repeated to the right.

(3) When an exercise is not completed in the standing position the standing position is resumed on command.

(4) For common faults, see references indicated.

PHYSICAL DRILL WITHOUT ARMS

18-3. *THE STANDING POSITION*.—*a*. The standing position is the position of attention (see chapter 2). It is taken at the command: **ATTENTION**, or as hereinafter prescribed.

b. The position of attention is very important as all exercises start from it. Instructors should criticize the position of attention with such remarks as **head up, chin in, chest high, knees straight**, etc.

STARTING POSITIONS OF THE ARMS

18-4. *WING STANDING POSITION*.—*a*. Command: 1. **Hips**, 2. **FIRM**. Arms are bent upward; hands placed on hips, fingers to the front, thumbs to the rear; palms of hands turned inward and pressing against ridge of hip bone; elbows pointing out to the side and slightly drawn back.

b. *Standing position*.—Command: 1. **Arms downward**, 2. **STRETCH**. Arms are stretched downward with force the shortest way.

c. *Common faults*:

- (1) Elbows drawn back too much and not pointed to the side.
- (2) Hands not firm on the hips.

18-5. *YARD STANDING POSITION*.—*a*. Command: 1. **Arms sideways**, 2. **RAISE**. Arms, fully stretched, are slowly raised sideways to the horizontal; thumbs and fingers extended and joined; palms turned downward.

b. *Standing position*.—Command: 1. **Arms downward**, 2. **SINK**. Arms are slowly lowered sideways to the sides.

c. *Common faults*:

- (1) Arms not held in the horizontal position.
- (2) Chest relaxed and not held high.

18-6. *REACH STANDING POSITION*.—*a*. Command: 1. **Arms forward**, 2. **RAISE**. Arms, fully stretched, are slowly raised forward to the horizontal; thumbs and fingers extended and joined; palms turned inward toward each other.

b. *Standing position*.—Command: 1. **Arms downward**, 2. **SINK**. Arms are slowly lowered forward to the sides.

c. *Common faults*.—In addition to those in par. 18-5 *c*:

- (3) Palms not turned inward.

18-7. *BEND STANDING POSITION*.—*a*. Command: 1. **Arms**, 2. **BEND**. Arms are bent up quickly at the elbows; palms toward shoulders; fingers touching points of the shoulders; elbows drawn back and down to the sides.

FORWARD BEND STANDING POSITION

b. Standing position.—Command: 1. **Arms downward**, 2. **STRETCH**. Arms are stretched down to the sides with force the shortest way.

c. Common faults:

- (1) Shoulders not back and square to the front.
- (2) Elbows not drawn in to the sides.
- (3) Fingers not resting on the shoulders.

18-8. **FORWARD BEND STANDING POSITION**.—*a.* Command: 1. **Arms forward**, 2. **BEND**. Arms are bent quickly upward in front of the chest; elbows at height of shoulders and drawn well back; thumbs and fingers extended and joined; palms down; wrist and forearm in a straight line.

b. Standing position.—Command: 1. **Arms downward**, 2. **STRETCH**. Arms are stretched down to the sides with force the shortest way.

c. Common faults:

- (1) Elbows not at height of shoulders and not drawn back enough.
- (2) Shoulders carried forward.
- (3) Wrist and forearm not in a straight line.

18-9. **STRETCH STANDING POSITION** (Two methods).—*a.* Command: (1) 1. **Arms forward and upward**, 2. **RAISE**. Arms, fully stretched, are raised forward and upward to the vertical position; palms turned inward, shoulder width apart; thumbs and fingers extended and joined.

(2) 1. **Arms sideways and upward**, 2. **RAISE**. Arms are raised sideways to the yard standing position (par. 18-5), the hands are then quickly turned upward and the movement continued upward.

b. Standing position.—Command:

(1) 1. **Arms forward and downward**, 2. **SINK**. Arms are slowly lowered in the reverse manner to the sides.

(2) 1. **Arms sideways and downward**, 2. **SINK**. Arms are slowly lowered in the reverse manner to the sides.

c. Common faults:

- (1) Arms not held straight and not in line with the trunk.
- (2) Palms not held shoulder width apart.

18-10. **REST STANDING POSITION**.—*a.* Command: 1. **Neck**, 2. **REST**. Arms are bent quickly at the elbows, carried up the shortest way; hands are placed in back of the neck, palms to the front, thumbs and fingers extended and joined, finger tips touching each other; elbows well back; chest high; head erect.

PHYSICAL DRILL WITHOUT ARMS

b. Standing position.—Command: 1. **Arms downward**, 2. **STRETCH**. Arms are stretched down to the sides with force the shortest way.

c. Common faults:

- (1) Head carried forward during arm movement.
- (2) Elbows not carried back far enough.
- (3) Fingers interlocking.

18-11. **PALM STANDING POSITION.**—*a.* Command: 1. **Hands outward**, 2. **TURN**. With the arms fully stretched and held close to the body, the palms are turned forward and outward away from the body as far as possible.

b. Standing position.—Command: 1. **Hands inward**, 2. **TURN**. Hands are turned inward toward the body.

c. Common faults:

- (1) Arms not held close to the body.
- (2) Shoulders carried forward.

STARTING POSITIONS OF THE LEGS

18-12. **CLOSE STANDING POSITION.**—*a.* Command: 1. **Feet**, 2. **CLOSE**. By slightly raising toes from the deck and pivoting on heels, the feet are carried inward so inner sides of feet touch.

b. Standing position.—Command: 1. **Feet**, 2. **OPEN**. By pivoting on heels, the feet are turned out to the standing position.

c. Common faults:

- (1) Body bent forward at the waist line.
- (2) Feet dragging deck while closing and opening.

18-13. **OUTWARD WALK STANDING POSITION.**—*a.* Command: 1. **Left (right) foot outward**, 2. **PLACE**. The designated foot is placed 2 foot-lengths outward (45 degrees to the front); weight of body equally distributed on both feet; shoulders square to the front.

b. Standing position.—Command: 1. **Feet together**, 2. **PLACE**. By pushing from deck with outward foot, it is carried back to the standing position.

c. Common faults:

- (1) Shoulders not square to the front.
- (2) Feet sliding along deck.
- (3) Angle between feet not maintained.
- (4) Weight not equally distributed.

FORWARD WALK STANDING POSITION

18-14. *FORWARD WALK STANDING POSITION*.—*a*. Command: 1. **Left (right) foot forward**, 2. **PLACE**. The designated foot is placed 2 foot-lengths directly forward; weight of body equally distributed on both feet; shoulders square to the front.

b. *Standing position*.—Command: 1. **Feet together**, 2. **PLACE**. By pushing from deck with forward foot, it is carried back to the standing position.

c. *Common faults*.—In addition to those in par. 18-13 *c*:

- (5) Designated foot not placed directly forward.

18-15. *OUTWARD LUNGE STANDING POSITION*.—*a*. Command: 1. **Left (right) foot outward**, 2. **LUNGE**. The designated foot is placed 3 foot-lengths outward (45 degrees to the front); outward knee directly over foot and bent to a right angle; both feet flat on deck; rear leg, trunk, and head in a straight line 45 degrees to the front.

b. *Standing position*.—Command: 1. **Feet together**, 2. **PLACE**. By pushing from deck with outward foot, it is carried back to the standing position.

c. *Common faults*:

- (1) Not stepping out 3 foot-lengths.
- (2) Feet not flat on deck.
- (3) Rear leg, body, and head not in a straight line.

18-16. *FORWARD LUNGE STANDING POSITION*.—*a*. Command: 1. **Left (right) foot forward**, 2. **LUNGE**. The designated foot is placed 3 foot-lengths forward; forward knee is directly over foot and bent to a right angle; both feet flat on deck; rear leg, trunk, and head in a straight line to the front; shoulders square to the front.

b. *Standing position*.—Command: 1. **Feet together**, 2. **PLACE**. By pushing off from deck with forward foot, it is carried back to the standing position.

c. *Common faults*.—In addition to those in par. 18-15 *c*:

- (4) Designated foot not placed directly forward.
- (5) Heel of the rear foot raised from deck.

18-17. *STRIDE STANDING POSITION*. (Three methods).—*a*. Command:

(1) 1. **Left (right) foot sideways**, 2. **PLACE**. The designated foot is carried directly sideways 2 foot-lengths; weight of body equally distributed on both feet.

(2) 1. **Feet sideways**, 2. **PLACE**. (Two motions.) Left foot is carried 1 foot-length to the left; right foot is then carried 1 foot-length to the right.

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(3) 1. **Feet sideways with a jump**, 2. **PLACE**. By pushing off from deck and springing upward, legs are parted sideways and feet are planted on deck 2 foot-lengths apart:

b. Standing position.—Command:

(1) 1. **Feet together**, 2. **PLACE**. Foot which was placed sideways is carried back to the standing position.

(2) 1. **Feet together**, 2. **PLACE**. (Two motions.) Left foot is carried in 1 foot-length; right foot is then carried to the standing position.

(3) 1. **Feet together with a jump**, 2. **PLACE**. By pushing off from deck and springing upward, both feet are carried to the standing position.

c. Common faults:

(1) Stride not long enough.

(2) Body swaying.

(3) Sliding feet on deck.

18-18. **TOE STANDING POSITION**.—*a.* Command: 1. **Heels**, 2. **RAISE**. With heels together and arms held to the sides, the body is raised as high as possible on the toes, maintaining the balance; chest held high; head erect.

b. Standing position.—Command: 1. **Heels**, 2. **SINK**. Heels are lowered to deck.

c. Common faults:

(1) Body swaying.

(2) Heels not held together.

18-19. **SPRING STANDING POSITION**.—*a.* Command: 1. **Heels**, 2. **RAISE** (see par. 18-18 *a*), 3. **Knees**, 4. **BEND** (Maintaining balance, knees are bent downward until upper legs and lower legs are at right angles to each other; position of rest of body is unaltered).

b. Standing position.—Command: 1. **Knees**, 2. **STRETCH** (Keeping heels clear of deck, knees are stretched upward), 3. **Heels**, 4. **SINK** (see par. 18-18 *b*).

c. Common faults:

(1) Heels lowered during knee bending and stretching.

(2) Body swaying.

18-20. **SPRING SITTING POSITION**.—*a.* Command: 1. **Heels**, 2. **RAISE** (see par. 18-18 *a*), 3. **Knees to sitting**, 4. **BEND** (Maintaining balance, knees are bent downward until the buttocks touch the heels; position of rest of body is unaltered).

STOOP STANDING POSITION

b. Standing position.—Command: 1. **Knees**, 2. **STRETCH**, 3. **Heels**, 4. **SINK**. (See par. 18-19 *b*.)

c. Common faults.—In addition to those in par. 18-19 *c*:

(3) **Knees** not bent enough.

STARTING POSITIONS OF THE TRUNK

18-21. **STOOP STANDING POSITION.**—*a.* Command: 1. **Trunk forward**, 2. **BEND**. With knees straight and arms at the sides, the trunk is slowly lowered forward to the horizontal so that trunk and legs form a right angle.

b. Standing position.—Command: 1. **Trunk upward**, 2. **STRETCH**. Trunk is raised slowly upward to the standing position.

c. Common faults:

(1) **Back** rounded.

(2) **Head** allowed to fall forward.

(3) **Chin** not drawn in.

(4) **Knees** not held straight.

18-22. **ARCH STANDING POSITION.**—*a.* Command: 1. **Trunk backward**, 2. **BEND**. With knees straight and arms at the sides, the trunk is bent slowly backward, bending taking place in upper spine; chest held high; chin drawn in.

b. Standing position.—Command: 1. **Trunk upward**, 2. **STRETCH**. Trunk is raised slowly upward to the standing position.

c. Common faults:

(1) **Bending** the lower spine.

(2) **Head** allowed to fall backward.

(3) **Chin** not drawn in.

18-23. **TWIST STANDING POSITION.**—*a.* Command: 1. **Trunk to the left (right)**, 2. **TWIST**. With arms at the sides, the trunk is slowly twisted above the hips, not in the thighs, to the designated side as far as possible; hips square to the front.

b. Standing position.—Command: 1. **Trunk forward**, 2. **TWIST**. Trunk is slowly twisted forward to the standing position.

c. Common faults:

(1) **Twisting** thighs or neck instead of trunk.

(2) **Hips** not square to the front.

18-24. **SIDE BEND STANDING POSITION.**—*a.* Command: 1. **Trunk to the left (right)**, 2. **BEND**. With arms at the sides, chin drawn in, and feet firm on the deck, the trunk is slowly bent to the

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designated side as far as possible. Position of head is unaltered in relation to trunk.

b. Standing position.—Command: 1. **Trunk upward**, 2. **STRETCH**. Trunk is slowly raised upward to the standing position.

c. Common faults:

- (1) Raising foot off the deck.
- (2) Head not in line with spine.
- (3) Twisting the trunk.

MISCELLANEOUS STARTING POSITIONS

18-25. **CROUCH SITTING POSITION.**—*a.* Command: 1. **Crouch sitting**, 2. **PLACE**. Knees are bent to sitting as in par. 18-20 *a*; hands are placed on deck between knees, keeping them shoulder width apart; head held high; back straight.

b. Standing position.—Command: **ATTENTION**. By pushing from deck with hands and stretching knees, the body is straightened up to the standing position.

c. Common faults:

- (1) Back rounded.
- (2) Head carried forward.

18-26. **STOOP FALLING POSITION.**—*a.* Command: 1. **Stoop falling**, 2. **PLACE**. (Two motions):

- (1) Execute crouch sitting as in par. 18-25 *a*.
- (2) Weight of body is taken on the arms and, without sliding feet along the deck, legs are stretched backward with force; toes placed on the deck so that body is in an inclined position; arms straight; legs, trunk, and head in a straight line.

b. Standing position.—Command: **ATTENTION**. (Two motions):

- (1) By pushing from deck with toes, the legs are brought forward to the crouch sitting position.
- (2) Come to **attention** as in par. 18-25 *b*.

c. Common faults:

- (1) Legs and trunk not in a straight line, allowing back to sway or hips to raise.
- (2) Sliding feet along the deck.

18-27. **BACK STOOP FALLING POSITION.**—*a.* Command: 1. **Stoop falling**, 2. **PLACE** (see par. 18-26 *a*), 3. **Back stoop falling on left (right) arm**, 4. **TURN** (By keeping designated arm and both legs straight, the body is turned on designated arm and foot; free

SIDE FALLING POSITION

hand placed on the deck about 18 inches from the other hand; back toward deck; heels on deck; body in an inclined position; legs, trunk, and head in a straight line).

b. Standing position.—Command: 1. **Stoop falling on the left (right) arm**, 2. **TURN** (The body is turned on designated arm and foot back to the stoop falling position), 3. **ATTENTION** (see par. 18-26 *b*).

c. Common faults.—In addition to those in pars. 18-25 *c* and 18-26 *c*:

- (5) Arms not held straight.
- (6) Body allowed to hinge at waistline.
- (7) Head carried forward and not in line with trunk.

18-28. **SIDE FALLING POSITION.**—*a.* Command: 1. **Stoop falling**, 2. **PLACE** (see par. 18-26 *a*), 3. **Side falling on left (right) arm**, 4. **TURN** (Body is turned on designated arm and foot until designated side of body is turned toward deck; free arm at the side; supporting arm straight; body in an inclined position; legs, trunk, and head in a straight line).

b. Standing position.—Command: 1. **Stoop falling on the left (right) arm**, 2. **TURN** (Body is turned on designated arm and foot back to the stoop falling position), 3. **ATTENTION** (see par. 18-26 *b*).

c. Common faults:

- (1) Body and arm not held straight.
- (2) Head held to the side.
- (3) Chin not drawn in.
- (4) Legs not together.

18-29. **LYING POSITION.**—*a.* Command: 1. **Stoop falling**, 2. **PLACE** (see par. 18-26 *a*), 3. **Lying on the left (right) arm**, 4. **TURN** (Body is turned on designated arm and foot to the back stoop falling position, as in par. 18-27 *a*, then immediately lowered to the deck so that back of body is flat on the deck; arms at the sides; legs together).

b. Standing position.—Command: 1. **Stoop falling on the left (right) arm**, 2. **TURN** (Body is turned on designated arm and foot to the stoop falling position), 3. **ATTENTION** (see par. 18-26 *b*).

c. Common faults:

- (1) Legs apart.
- (2) Arms not at the sides.

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18-30. *FORWARD LYING POSITION*.—*a*. Command: 1. **Stoop falling**, 2. **PLACE** (see par. 18-26 *a*), 3. **Forward lying**, 4. **PLACE** (Body is quickly lowered to the deck and arms placed at the sides; chin drawn in; legs together).

b. *Standing position*.—Command: 1. **Stoop falling**, 2. **PLACE** (Hands are placed on the deck as in stoop falling and arms are straightened, raising body to the stoop falling position), 3. **ATTENTION** (see par. 18-26 *b*).

c. *Common faults*:

- (1) Front of body not flat on deck.
- (2) Arms not at the sides.
- (3) Legs apart.
- (4) Chin not drawn in.

18-31. *STRIDE KNEELING POSITION*.—*a*. Command: 1. **Stride kneeling**, 2. **PLACE**. (Two motions.)

(1) Right knee is bent; left knee placed on the deck about 6 inches to left of right foot, half kneeling.

(2) Right knee is placed on the deck so that distance between knees is about 12 inches; body, from the knees up, held straight; heels together.

b. *Standing position*.—Command: **ATTENTION**. (Two motions.)

(1) Left knee is raised; left foot placed on the deck opposite right knee; both hands are placed on left knee.

(2) By stretching knees, body is raised to the standing position and arms are lowered to the sides.

c. *Common faults*:

- (1) Hinging body at waistline.
- (2) Touching deck with hands in taking the position.
- (3) Heels not together when in kneeling position.

COMBINED STARTING POSITIONS OF THE ARMS AND LEGS

18-32. *WING STRIDE STANDING POSITION*.—*a*. Command: 1. **Left (right) foot sideways and hips**, 2. **FIRM**. Simultaneously execute the movements as prescribed in pars. 18-17 *a* (1) and 18-4 *a*.

b. *Standing position*.—Command: 1. **Feet together and arms downward**, 2. **STRETCH**. Simultaneously execute the movements as prescribed in pars. 18-17 *b* (1) and 18-4 *b*.

18-33. *BEND TOE STANDING POSITION*.—*a*. Command: 1. **Heels raising and arms**, 2. **BEND**. Simultaneously execute the movements as prescribed in pars. 18-18 *a* and 18-7 *a*.

REST OUTWARD WALK STANDING POSITION

b. Standing position.—Command: 1. **Heels sinking and arms downward**, 2. **STRETCH**. Simultaneously execute the movements as prescribed in pars. 18-18 *b* and 18-7 *b*.

18-34. **REST OUTWARD WALK STANDING POSITION.**—*a. Command:* 1. **Left (right) foot outward place and neck**, 2. **REST**. Simultaneously execute the movements as prescribed in pars. 18-13 *a* and 18-10 *a*.

b. Standing position.—Command: 1. **Feet together and arms downward**, 2. **STRETCH**. Simultaneously execute the movements as prescribed in pars. 18-13 *b* and 18-10 *b*.

18-35. **STRETCH OUTWARD LUNGE STANDING POSITION.**—*a. Command:* 1. **Left (right) foot outward lunging and arms forward and upward**, 2. **RAISE**. Simultaneously execute the movements as prescribed in pars. 18-15 *a* and 18-9 *a* (1).

b. Standing position.—Command: 1. **Feet together and arms forward and downward**, 2. **SINK**. Simultaneously execute the movements as prescribed in pars. 18-15 *b* and 18-9 *b* (1).

*c. The stretch position can also be taken on appropriate commands by raising the arms sideways and upwards, see pars. 18-9 *a* (2) and *b* (2).*

EXERCISES OF THE LEGS, FROM THE STARTING POSITIONS

18-36. **WING STANDING; HEEL RAISING.**—*a. Starting position.*—Command: 1. **Hips**, 2. **FIRM** (see par. 18-4 *a*).

b. Exercise.—Command: 1. **Heels**, 2. **RAISE**, 3. **Heels**, 4. **SINK** (see par. 18-18), 5. **By the numbers**, 6. **ONE**, 7. **TWO**, and so on.

c. Standing position.—Command: 1. **Arms downward**, 2. **STRETCH** (see par. 18-4 *b*).

18-37. **YARD, STRIDE STANDING; HEEL RAISING.**—*a. Starting position.*—Command: 1. **Left (right) foot sideways and arms sideways**, 2. **RAISE** (see pars. 18-17 *a* (1) and 18-5 *a*).

b. Exercise.—Command: 1. **Heels**, 2. **RAISE**, 3. **Heels**, 4. **SINK** (see par. 18-18), 5. **By the numbers**, 6. **ONE**, 7. **TWO**, and so on.

c. Standing position.—Command: 1. **Feet together and arms downward**, 2. **SINK** (see pars. 18-17 *b* (1) and 18-5 *b*).

18-38. **WING, OUTWARD WALK STANDING; HEEL RAISING.**—*a. Starting position.*—Command: 1. **Left (right) foot outward hips**, 2. **FIRM** (see pars. 18-13 *a* and 18-4 *a*).

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b. Exercise.—Command: 1. **Heels**, 2. **RAISE**, 3. **Heels**, 4. **SINK** (see par. 18-18), 5. **By the numbers**, 6. **ONE**, 7. **TWO**, and so on.

c. Standing position.—Command: 1. **Feet together and arms downward**, 2. **STRETCH** (see pars. 18-13 *b* and 18-4 *b*).

18-39. **YARD, FORWARD WALK STANDING; HEEL RAISING.**—*a. Starting position.*—Command: 1. **Left (right) foot forward and arms sideways**, 2. **RAISE** (see pars. 18-14 *a* and 18-5 *a*).

b. Exercise.—Command: 1. **Heels**, 2. **RAISE**, 3. **Heels**, 4. **SINK** (see par. 18-18), 5. **By the numbers**, 6. **ONE**, 7. **TWO**, and so on.

c. Standing position.—Command: 1. **Feet together and arms downward**, 2. **SINK** (see pars. 18-14 *b* and 18-5 *b*).

18-40. **WING STANDING; HEEL RAISING AND KNEE BENDING.**—*a. Starting position.*—Command: 1. **Hips**, 2. **FIRM** (see par. 18-4 *a*).

b. Exercise.—Command: 1. **Heels**, 2. **RAISE**, 3. **Knees**, 4. **BEND**, 5. **Knees**, 6. **STRETCH**, 7. **Heels**, 8. **SINK** (see par. 18-19), 9. **By the numbers**, 10. **ONE**, 11. **TWO**, 12. **THREE**, 13. **FOUR**, and so on.

c. Standing position.—Command: 1. **Arms downward**, 2. **STRETCH** (see par. 18-4 *b*).

18-41. **YARD STANDING; HEEL RAISING AND KNEE BENDING TO SITTING.**—*a. Starting position.*—Command: 1. **Arms sideways**, 2. **RAISE** (see par. 18-5 *a*).

b. Exercise.—Command: 1. **Heels**, 2. **RAISE**, 3. **Knees to sitting**, 4. **BEND**, 5. **Knees**, 6. **STRETCH**, 7. **Heels**, 8. **SINK** (see par. 18-20), 9. **By the numbers**, 10. **ONE**, 11. **TWO**, 12. **THREE**, 13. **FOUR**, and so on.

c. Standing position.—Command: 1. **Arms downward**, 2. **SINK** (see par. 18-5 *b*).

18-42. **WING STANDING; LUNGING OUTWARD.**—*a. Starting position.*—Command: 1. **Hips**, 2. **FIRM** (see par. 18-4 *a*).

b. Exercise.—Command: 1. **Left foot outward**, 2. **LUNGE**, 3. **Feet together**, 4. **PLACE**, 5. **Right foot outward**, 6. **LUNGE**, 7. **Feet together**, 8. **PLACE** (see par. 18-15), 9. **By the numbers**, 10. **ONE**, 11. **TWO**, 12. **THREE**, 13. **FOUR**, and so on.

c. Standing position.—Command: 1. **Arms downward**, 2. **STRETCH** (see par. 18-4 *b*).

BEND STANDING

18-43. *BEND STANDING; LUNGING FORWARD.*—*a. Starting position.*—Command: 1. **Arms**, 2. **BEND** (see par. 18-7 *a*).

b. Exercise.—Command: 1. **Left foot forward**, 2. **LUNGE**, 3. **Feet together**, 4. **PLACE**, 5. **Right foot forward**, 6. **LUNGE**, 7. **Feet together**, 8. **PLACE** (see par. 18-16), 9. **By the numbers**, 10. **ONE**, 11. **TWO**, 12. **THREE**, 13. **FOUR**, and so on.

c. Standing position.—Command: 1. **Arms downward**, 2. **STRETCH** (see par. 18-7 *b*).

18-44. *WING STANDING; ADVANCE BY LUNGING FORWARD.*—*a. Starting position.*—Command: 1. **Hips**, 2. **FIRM** (see par. 18-4 *a*).

b. Exercise.—Command: 1. **Advancing forward by the numbers**, 2. **ONE**, 3. **TWO**, 4. **THREE**, 5. **FOUR**, and so on. At the command **ONE** the left foot is placed forward as in par. 18-16 *a*; at **TWO** the right foot is placed alongside the left; at **THREE** the right foot is placed forward; at **FOUR** the left foot is placed alongside the right, and so on. Then the class is faced about, the exercise repeated, and the class is faced about again.

c. Standing position.—Command: 1. **Arms downward**, 2. **STRETCH** (see par. 18-4 *b*).

d. Additional common faults.—The class not working in unison and not keeping the proper dress in ranks while advancing.

EXERCISES OF THE ARMS, FROM THE STARTING POSITIONS

18-45. *STANDING; ARM STRETCHING SIDEWAYS.*—*a. Exercise.*—Command: 1. **Arms sideways**, 2. **STRETCH** (Two motions),

(1) Arms are bent upward to the bend position as in par. 18-7 *a*.

(2) Arms are stretched sideways to the horizontal with force; palms turned down.

3. **Arms downward**, 4. **STRETCH** (Two motions),

(1) Arms are carried to the bend position with a snap.

(2) Arms are stretched downward with force to the sides.

5. **By the numbers**, 6. **ONE**, 7. **TWO**, 8. **THREE**, 9. **FOUR**, and so on.

NOTE.—The pause at the bend position is very short.

b. Common faults:

(1) Arms not fully stretched.

(2) Palms not turned down.

(3) Not enough snap and effort in the bending movement.

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18-46. *STANDING; ARM STRETCHING UPWARD.*—*a. Exercise.*—Command 1. **Arms upward**, 2. **STRETCH** (Two motions),

(1) Arms are bent upward as in par. 18-7 *a*.

(2) Arms are stretched upward with force to the vertical position; palms turned inward, shoulder width apart

3. **Arms downward**, 4. **STRETCH** (Two motions),

(1) Arms are carried to the bend position with a snap.

(2) Arms are stretched downward with force to the sides.

5. *By the numbers*, 6. **ONE**, 7. **TWO**, 8. **THREE**, 9. **FOUR**, and so on.

NOTE.—The pause at the bend position is very short.

b. Common faults:

(1) Arms not stretched upward with force.

(2) Palms not turned inward and shoulder width apart.

18-47. *STANDING; ARM STRETCHING FORWARD.*—*Exercise.*—Command: 1. **Arms forward**, 2. **STRETCH** (Two motions),

(1) Arms are bent upward as in par. 18-7 *a*.

(2) Arms are stretched forward to the horizontal position with force; palms turned inward, shoulder width apart.

3. **Arms downward**, 4. **STRETCH** (Two motions),

(1) Arms are carried to the bend position with a snap.

(2) Arms are stretched downward with force to the sides.

5. *By the numbers*, 6. **ONE**, 7. **TWO**, 8. **THREE**, 9. **FOUR**, and so on.

NOTE.—The pause at the bend position is very short.

18-48. *STANDING; ARM STRETCHING BACKWARD.*—*a. Exercise.*—Command: 1. **Arms backward**, 2. **STRETCH** (Two motions),

(1) Arms are bent upward as in par. 18-7 *a*.

(2) Arms are stretched downward and backward with force; palms turned inward, shoulder width apart.

3. **Arms downward**, 4. **STRETCH** (Two motions),

(1) Arms are carried to the bend position with a snap.

(2) Arms are stretched downward with force to the sides.

5. *By the numbers*, 6. **ONE**, 7. **TWO**, 8. **THREE**, 9. **FOUR**, and so on.

NOTE.—The pause at the bend position is very short.

b. Common faults:

(1) Head carried forward as arms are stretched backward.

(2) Arms not carried back far enough.

FORWARD BEND STANDING

18-49. *FORWARD BEND STANDING; ARM STRIKING SIDEWAYS.*—*a. Starting position.*—Command: 1. *Arms forward*, 2. *BEND* (see par. 18-8 *a*).

b. Exercise.—Command: 1. *Arms sideways*, 2. *STRIKE* (Arms are stretched sideways with force to the yard position; upper arms in a firm position), 3. *Arms forward*, 4. *BEND* (Arms are carried with force to the first position), 5. *By the numbers*, 6. *ONE*, 7. *TWO*, and so on.

c. Standing position.—Command: 1. *Arms downward*, 2. *STRETCH* (see par. 18-8 *b*).

18-50. *BEND STANDING; ARM STRETCHING IN VARIOUS DIRECTIONS.*—*a. Starting position.*—Command: 1. *Arms*, 2. *BEND* (see par. 18-7 *a*).

b. Exercise.—Command: 1. *Arms sideways*, 2. *STRETCH* (see par. 18-45), 3. *Arms*, 4. *BEND*, 5. *Arms upward*, 6. *STRETCH* (see par. 18-46), 7. *Arms*, 8. *BEND*, 9. *Arms forward*, 10. *STRETCH* (see par. 18-47), 11. *Arms*, 12. *BEND*, 13. *Arms backward*, 14. *STRETCH* (see par. 18-48), 15. *Arms*, 16. *BEND*, 17. *By the numbers*, 18. *ONE*, 19. *TWO*, 20. *THREE*, 21. *FOUR*, 22. *FIVE*, 23. *SIX*, 24. *SEVEN*, 25. *EIGHT*, and so on.

c. Standing position.—Command: 1. *Arms downward*, 2. *STRETCH* (see par. 18-7 *b*).

18-51. *REACH STANDING; ARM SWINGING UPWARD AND FORWARD.*—*a. Starting position.*—Command: 1. *Arms forward*, 2. *RAISE* (see par. 18-6 *a*).

b. Exercise.—Command: 1. *Arms upward*, 2. *SWING* (Arms are swung upward to the stretch position), 3. *Arms forward*, 4. *SWING* (Arms are swung forward to the reach position), 5. *By the numbers*, 6. *ONE*, 7. *TWO*, and so on.

c. Standing position.—Command: 1. *Arms downward*, 2. *SINK* (see par. 18-6 *b*).

18-52. *STRETCH STANDING; ARM SWINGING FORWARD AND UPWARD.*—*a. Starting position.*—Command: 1. *Arms forward and upward*, 2. *RAISE* (see par. 18-9 *a* (1)).

b. Exercise.—Command: 1. *Arms forward*, 2. *SWING* (Arms are swung forward to the reach position), 3. *Arms upward*, 4. *SWING* (Arms are swung upward to the stretch position), 5. *By the numbers*, 6. *ONE*, 7. *TWO*, and so on.

c. Standing position.—Command: 1. *Arms forward and downward*, 2. *SINK* (see par. 18-9 *b* (1)).

PHYSICAL DRILL WITHOUT ARMS

18-53. *REACH STANDING; ARM SWINGING SIDEWAYS.*—*a. Starting position.*—Command: 1. **Arms forward**, 2. **RAISE** (see par. 18-6 *a*).

b. Exercise.—Command: 1. **Arms sideways**, 2. **SWING** (Arms are swung sideways to the yard position, palms turned downward), 3. **Arms forward**, 4. **SWING** (Arms are swung forward to the reach position, palms turned inward), 5. **By the numbers**, 6. **ONE**, 7. **TWO**, and so on.

c. Standing position.—Command: 1. **Arms downward**, 2. **SINK** (see par. 18-6 *b*).

d. Common faults:

(1) Head carried forward during the arm swinging sideways.

18-54. *YARD STANDING; ARM SWINGING FORWARD.*—

a. Starting position.—Command: 1. **Arms sideways**, 2. **RAISE** (see par. 18-5 *a*).

b. Exercise.—Command: 1. **Arms forward**, 2. **SWING** (Arms are swung forward to the reach position, palms turned inward), 3. **Arms sideways**, 4. **SWING** (Arms are swung sideways to the yard position), 5. **By the numbers**, 6. **ONE**, 7. **TWO**, and so on.

c. Standing position.—Command: 1. **Arms downward**, 2. **SINK** (see par. 18-5 *b*).

d. Common faults:

(1) Head carried forward during the arms swinging sideways.

18-55. *STANDING; ARM SWINGING FORWARD AND UPWARD.*—*a. Exercise.*—Command: 1. **Arms forward and upward**, 2. **SWING** (Arms are swung forward and upward to the stretch position), 3. **Arms forward and downward**, 4. **SWING** (Arms are swung forward and downward to the standing position), 5. **By the numbers**, 6. **ONE**, 7. **TWO**, and so on.

d. Common faults:

(1) Arms not held straight and not shoulder width apart.

(2) Arms allowed to swing beyond thighs in the downward swing.

18-56. *STANDING; ARM SWINGING SIDEWAYS AND UPWARD.*—*a. Exercise.*—Command: 1. **Arms sideways and upward**, 2. **SWING** (Arms are swung sideways and upward to the stretch position, turning palms up while passing the yard position), 3. **Arms sideways and downward**, 4. **SWING** (Arms are swung sideways and downward to the standing position, turning palms down while passing the yard position), 5. **By the numbers**, 6. **ONE**, 7. **TWO**, and so on.

STANDING

b. Common faults.—In addition to those in par. 18-55:

(3) Arms allowed to slap thighs in the downward swing.

18-57. *STANDING; ARM CIRCLING WITH A SWING.*—*Exercise.*—Command: 1. **Arms forward and upward**, 2. **SWING** (Arms are swung forward and upward to the stretch position), 3. **Arms sideways and downward**, 4. **SWING** (Arms are swung sideways and downward to the standing position, turning the palms down while passing the yard position), 5. **By the numbers**, 6. **ONE**, 7. **TWO**, and so on.

18-58. *HALF STRETCH STANDING; ARM CHANGING WITH A SWING.*—*a. Starting position.*—Command: 1. **Left (right) arm forward and upward**, 2. **RAISE** (see par. 18-9 *a* (1)).

b. Exercise.—Command: 1. **Arm changing with a swing by the numbers**, 2. **ONE** (Arm above head is swung forward and downward and at same time other arm is swung forward and upward), 3. **TWO** (Arms are changed in reverse manner), and so on.

c. Standing position.—Command: 1. **Left (right) arm forward and downward**, 2. **SINK** (see par. 18-9 *b* (1)).

d. Common faults:

(1) Arms not held straight during the swinging.

(2) Head carried forward.

(3) Shoulders not held firm.

18-59. *STRETCH STANDING; ARM PARTING.*—*a. Starting position.*—Command: 1. **Arms forward and upward**, 2. **RAISE** (see par. 18-9 *a* (1)).

b. Exercise.—Command: 1. **Arms parting by the numbers**, 2. **ONE** (Arms are quickly parted and lowered to the yard (A) position—the yard (A) position is the same as the yard position described in par. 18-5, except that palms are turned upward), 3. **TWO** (Arms are swung upward to the stretch position), and so on.

c. Standing position.—Command: 1. **Arms forward and downward**, 2. **SINK** (see par. 18-9 *b* (1)).

18-60. *YARD (A) STANDING; ARM PARTING.*—*a. Starting position.*—Command: 1. **Arms sideways**, 2. **RAISE** (see par. 18-5 *a*), 3. **Hands upward**, 4. **TURN** (Palms are turned upward).

b. Exercise.—Command: 1. **Arms parting by the numbers**, 2. **ONE** (Arms are swung upward to the stretch position), 3. **TWO** (Arms are parted and lowered to the yard (A) position), and so on.

c. Standing position.—Command: 1. **Hands downward**, 2. **TURN** (Palms are turned downward), 3. **Arms downward**, 4. **SINK** (see par. 18-5 *b*).

PHYSICAL DRILL WITHOUT ARMS

EXERCISES OF THE NECK, FROM THE STARTING POSITIONS

18-61. *WING STANDING; HEAD BENDING BACKWARD (FORWARD).*—*a. Starting position.*—Command: 1. **Hips**, 2. **FIRM** (see par. 18-4 *a*).

b. Exercise.—Command: 1. **Head backward**, 2. **BEND** (Head is bent backward as far as possible, chin drawn in, shoulders held firm), 3. **Head upward**, 4. **STRETCH** (Head is raised to the standing position), 5. **Head forward**, 6. **BEND**, 7. **Head upward**, 8. **STRETCH**, 9. *By the numbers*, 10. **ONE**, 11. **TWO**, 12. **THREE**, 13. **FOUR**, and so on.

c. Standing position.—Command: 1. **Arms downward**, 2. **STRETCH** (see par. 18-4 *b*).

NOTE.—Head bending can also be carried out from the bend, yard, or forward bend standing positions.

18-62. *WING STANDING; HEAD BENDING SIDEWAYS.*—

a. Starting position.—Command: 1. **Hips**, 2. **FIRM** (see par. 18-4 *a*).

b. Exercise.—Command: 1. **Head to the left**, 2. **BEND** (Head is slowly bent to the left as far as possible, chin drawn in, shoulders held firm), 3. **Head upward**, 4. **STRETCH** (Head is slowly raised to the standing position), 5. **Head to the right**, 6. **BEND**, 7. **Head upward**, 8. **STRETCH**, 9. *By the numbers*, 10. **ONE**, 11. **TWO**, 12. **THREE**, 13. **FOUR**, and so on.

c. Standing position.—Command: 1. **Arms downward**, 2. **STRETCH** (see par. 18-4 *b*).

NOTE.—Head bending sideways can also be carried out from the bend, yard, or forward bend standing positions.

18-63. *WING STANDING; HEAD TWISTING.*—*a. Starting position.*—Command: 1. **Hips**, 2. **FIRM** (see par. 18-4 *a*).

b. Exercise.—Command: 1. **Head to the left**, 2. **TWIST** (Head is slowly twisted to the left as far as possible, keeping the head erect and the chin drawn in), 3. **Head forward**, 4. **TWIST** (Head is slowly twisted forward to the standing position), 5. **Head to the right**, 6. **TWIST**, 7. **Head forward**, 8. **TWIST**, 9. *By the numbers*, 10. **ONE**, 11. **TWO**, 12. **THREE**, 13. **FOUR**, and so on.

c. Standing position.—Command: 1. **Arms downward**, 2. **STRETCH** (see par. 18-4 *b*).

NOTE.—Head twisting can also be carried out from the bend, yard, and spring sitting positions.

REST STANDING

EXERCISES OF THE TRUNK, FROM THE STARTING POSITIONS

18-64. *REST STANDING; TRUNK BENDING BACKWARD (FORWARD).*—*a. Starting position.*—Command: 1. *Neck*, 2. *REST* (see par. 18-10 *a*).

b. Exercise.—Command: 1. *Trunk backward*, 2. *BEND*, 3. *Trunk upward*, 4. *STRETCH* (see par. 18-22), 5. *Trunk forward*, 6. *BEND*, 7. *Trunk upward*, 8. *STRETCH* (see par. 18-21), 9. *By the numbers*, 10. *ONE*, 11. *TWO*, 12. *THREE*, 13. *FOUR*, and so on.

c. Standing position.—Command: 1. *Arms downward*, 2. *STRETCH* (see par. 18-10 *b*).

NOTE.—Trunk bending backward and forward can also be carried out from the wing, bend, yard, or stretch standing positions.

18-65. *YARD STANDING; TRUNK BENDING SIDEWAYS.*—*a. Starting position.*—Command: 1. *Arms sideways*, 2. *RAISE* (see par. 18-5 *a*).

b. Exercise.—Command: 1. *Trunk to the left*, 2. *BEND*, 3. *Trunk upward*, 4. *STRETCH*, 5. *Trunk to the right*, 6. *BEND*, 7. *Trunk upward*, 8. *STRETCH* (see par. 18-24), 9. *By the numbers*, 10. *ONE*, 11. *TWO*, 12. *THREE*, 13. *FOUR*, and so on.

c. Standing position.—Command: 1. *Arms downward*, 2. *SINK* (see par. 18-5 *b*).

NOTE.—Trunk bending sideways can also be carried out from the wing, rest, bend, stretch, or forward bend standing positions.

18-66. *REST STANDING; TRUNK TWISTING.*—*a. Starting position.*—Command: 1. *Neck*, 2. *REST* (see par. 18-10 *a*).

b. Exercise.—Command: 1. *Trunk to the left*, 2. *TWIST*, 3. *Trunk forward*, 4. *TWIST*, 5. *Trunk to the right*, 6. *TWIST*, 7. *Trunk forward*, 8. *TWIST* (see par. 18-23), 9. *By the numbers*, 10. *ONE*, 11. *TWO*, 12. *THREE*, 13. *FOUR*, and so on.

c. Standing position.—Command: 1. *Arms downward*, 2. *STRETCH* (see par. 18-10 *b*).

NOTE.—Trunk twisting can also be carried out from the bend, yard, wing, forward bend, or stretch standing positions.

SECTION III

PHYSICAL DRILL WITH ARMS

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Eighth exercise, overhead twists.....	18-76	30
Ninth exercise, side twists.....	18-77	32

18-67. *GENERAL RULES*.—*a*. All movements in this section are in four counts and except **come to ready**, are usually performed four times.

b. The exercises may be executed by command, or to music, or silently, following the motions of a leader, and may be discontinued by the command **HALT**, when the ready will be resumed.

18-68. *COME TO READY* (See figs. 1, 2, and 3).—Command: 1. **Come to ready**, 2. **ONE**, 3. **TWO**, 4. **THREE**.

ONE—Raise the piece with the right hand, grasp it with the left at the height of the right shoulder, knuckles toward the body. The right hand will grasp the small of the stock, forefinger under the guard.

TWO—Let the piece drop in front of the body to a horizontal position, sling down, keeping the body erect.

THREE—Raise the piece horizontally to the height of the shoulders, sling up, at the same time moving the left foot to the left about 12 inches. Keep the chest out and the shoulders well back. This position is **ready**, and is the starting point of all the movements under arms.

18-69. *FIRST EXERCISE, DOWN AND FORWARD* (See figs. 4 and 5).—To exercise the muscles of the hips, back, and arms. Command: 1. **Down and forward**, 2. **ONE**, 3. **TWO**, 4. **THREE**, 5. **FOUR**, and so on.

COME TO READY



FIGURE 1.—Come to ready.
End of first count.



FIGURE 2.—Come to ready.
End of second count.

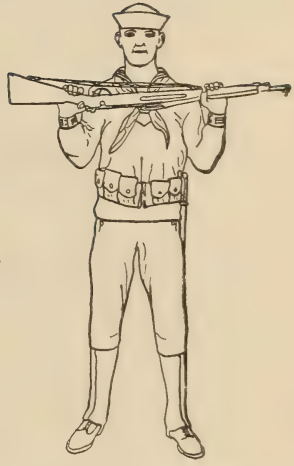


FIGURE 3.—Come to ready.
End of third count.

PHYSICAL DRILL WITH ARMS

ONE—From *ready* lower the piece horizontally to the insteps, keeping arms and knees straight, if possible.

TWO—Back to *ready*, chest out, elbows back.

THREE—Push the piece horizontally forward.

FOUR—Back to *ready*.



FIGURE 4.—Down and forward.
End of first count.



FIGURE 5.—Down and forward.
End of third count.



FIGURE 6.—Forward and up. End of third count.

SECOND EXERCISE

18-70. *SECOND EXERCISE, FORWARD AND UP* (see fig. 6).—To exercise the muscles of the arms and of side walls of the chest. Command: 1. **Forward and up**, 2. **ONE**, 3. **TWO**, 4. **THREE**, 5. **FOUR**, and so on.

ONE—From **ready**, push out horizontally forward as in the first exercise.

TWO—Back to **ready**, chest out, elbows back.

THREE—Push the piece to high vertical, keeping it horizontal, and expanding chest.

FOUR—Back to **ready**.

18-71. *THIRD EXERCISE, UP AND SHOULDERS* (see fig. 7).—To exercise the muscles of the arms and of the side and front



FIGURE 7.—Up and shoulders. End of second count.

walls of the chest. Command: 1. **Up and shoulders**, 2. **ONE**, 3. **TWO**, 4. **THREE**, 5. **FOUR**, and so on.

ONE—From **ready**, push the piece to vertical, as in the second exercise.

TWO—Lower piece to back of shoulders, head up, elbows well back.

THREE—Up again to vertical.

FOUR—Down to **ready**.

18-72. *FOURTH EXERCISE, SIDE PUSHES* (see fig. 8).—To exercise the rotary muscles of the body and thighs and the loin muscles. Command: 1. **Side pushes**, 2. **ONE**, 3. **TWO**, 4. **THREE**, 5. **FOUR**, and so on.

PHYSICAL DRILL WITH ARMS

ONE—From **ready**, push the piece horizontally to right side, twisting the body, keeping the eyes on the piece but keeping the heels firmly on the ground.

TWO—Back to **ready**, chest out, elbows back.

THREE—Push the piece to the left side, as above.

FOUR—Back to **ready**.



FIGURE 8.—Side pushes. End of first count.

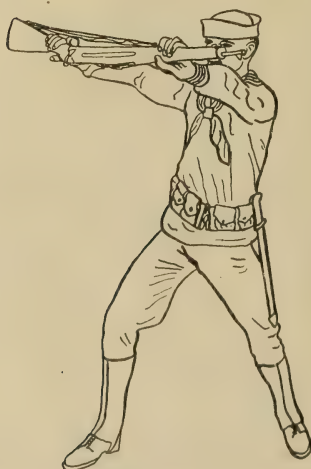


FIGURE 9.—Diagonal lunges. End of first count.

FIFTH EXERCISE

18-73. *FIFTH EXERCISE, DIAGONAL LUNGES* (see fig. 9).—To exercise the muscles of the arms, back, and legs.—Command: 1. *Diagonal lunges*, 2. *ONE*, 3. *TWO*, 4. *THREE*, 5. *FOUR*, and so on.

ONE—From **ready**, lunge about 36 inches diagonally to the right with the right foot, at the same time pushing the piece out horizontally. The left foot should be flat and the eyes directed to the piece.

TWO—Back to **ready**, chest out, elbows back.

THREE—Lunge to the left with the left foot, as above.

FOUR—Back to **ready**.



FIGURE 10.—Forward lunges. End of first count.

18-74. *SIXTH EXERCISE, FORWARD LUNGES* (see fig. 10).—To exercise the muscles of the arms and legs and the side walls of the chest. Command: 1. *Forward lunges*, 2. *ONE*, 3. *TWO*, 4. *THREE*, 5. *FOUR*, and so on.

ONE—From **ready**, lunge about 36 inches directly to the front with the right foot, at the same time pushing the piece horizontally to vertical and directing the eyes to the piece. Keep left foot flat.

TWO—Back to **ready**.

THREE—Lunge to the front with left foot, as above.

FOUR—Back to **ready**.

PHYSICAL DRILL WITH ARMS

18-75. *SEVENTH EXERCISE, FRONT SWEEPS* (see figs. 11 and 12).—To exercise all the principal posterior muscles of the body. Command: 1. **Front sweeps, slow**, 2. **ONE**, 3. **TWO**, 4. **THREE**, 5. **FOUR**, and so on.

ONE—From **ready**, raise the piece horizontally to high vertical, keeping the chest well out and emphasizing the up-stretch.

TWO—Lower the piece slowly in a front semicircle to insteps, keeping the arms straight and emphasizing the out-reach.

THREE—Raise the piece slowly in a front semicircle to vertical.

FOUR—Down to **ready**.



FIGURE 11.—Front sweeps.

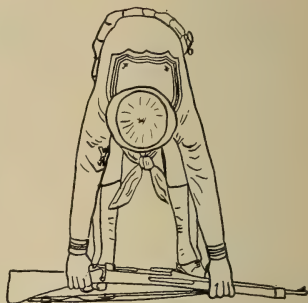


FIGURE 12.—Front sweeps.
End of second count.

18-76. *EIGHTH EXERCISE, OVERHEAD TWISTS* (see figs. 13 and 14).—To exercise the rotary muscles of the upper part of the body; also to stimulate the venous circulation. Command: 1. **Overhead twists, butt front**, 2. **ONE**, 3. **TWO**, 4. **THREE**, 5. **FOUR**, 6. **Muzzle front**, 7. **ONE**, 8. **TWO**, 9. **THREE**, 10. **FOUR**, and so on.

Butt front.—

ONE—From **ready**, raise the piece overhead, at the same time twisting it till the butt points directly forward. Keep the piece horizontal.

TWO—Twist the piece to the right until the muzzle points directly forward. Hold the hips firmly forward, confining the movement to the upper part of the body.

THREE—Twist back till the butt points directly forward.

FOUR—Lower the piece to **ready**.

EIGHTH EXERCISE

Muzzle front.—

ONE—From **ready** raise the piece overhead, at the same time twisting it till the muzzle points directly forward.

TWO—Twist the piece to the left until the butt points directly forward.

THREE—Twist back until the muzzle points forward.

FOUR—Lower the piece to **ready**.



FIGURE 13.—Overhead twist.
Butt front.



FIGURE 14.—Overhead twist.
Muzzle front.

PHYSICAL DRILL WITH ARMS

18-77. *NINTH EXERCISE, SIDE TWISTS* (see figs. 15 and 16).—To exercise the muscles of the sides, loins, and small of the back.—*a.* Command: 1. **Side twists**, 2. **ONE**, 3. **TWO**, 4. **THREE**, 5. **FOUR**, and so on.

ONE—From **ready**, drop the piece horizontally in front to position No. 2 in coming to **ready**.

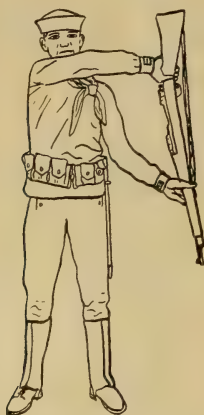


FIGURE 15.—Side twist.
End of second count.

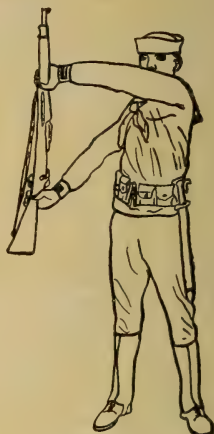


FIGURE 16.—Side twist.
End of fourth count.

TWO—Lifting the butt up, carry the piece strongly to the left side and out, muzzle pointing directly down. Keep the hips firm.

THREE—Return the piece to position No. 2 in coming to **ready**.

FOUR—Lifting the muzzle, carry the piece strongly to the right side and out, muzzle pointing directly up.

b. Repeat the exercise.

c. At the end of the ninth exercise, come to **order arms**.



LANDING FORCE MANUAL

UNITED STATES NAVY



CHAPTER 19

SMALL ARMS MARKSMANSHIP

(Revised—1946)



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Washington, 1 May 1946.

1. Small Arms Marksmanship, Chapter 19, Revised 1946, Landing Force Manual, United States Navy, is approved for the use and guidance of the Naval Service and will be placed in effect upon receipt.

2. This publication supersedes United States Navy Small Arms Firing Regulations and Instructions, 1931, and Small Arms Marksmanship, Chapter 19, Landing Force Manual, United States Navy, 1938.

JAMES FORRESTAL,
Secretary of the Navy.

FOREWORD

The Landing Force Manual, United States Navy, 1938, is published in nineteen chapters as follows:

- CHAPTER 1. INTRODUCTION.
- CHAPTER 2. INDIVIDUAL INSTRUCTION WITHOUT ARMS AND WITH ARMS (RIFLE, AUTOMATIC RIFLE, SUBMACHINE GUN, PISTOL, AND BAYONET).
- CHAPTER 3. DRILL, THE SQUAD, PLATOON, AND COMPANY.
- CHAPTER 4. FORMATIONS OF THE BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 5. CART DRILL.
- CHAPTER 6. DRILL, MACHINE GUN, CALIBER .30.
- CHAPTER 7. DRILL, THE SPECIAL-WEAPONS PLATOON (37-MM. GUN AND 81-MM. MORTAR).
- CHAPTER 8. DRILL, ARTILLERY.
- CHAPTER 9. THE INFANTRY PACK, AND DISPLAY OF EQUIPMENT AND CLOTHING.
- CHAPTER 10. CEREMONIES; AND MANUAL OF THE COLOR, SWORD, AND GUIDON.
- CHAPTER 11. INTERIOR GUARD DUTY AND GUARD MOUNTING.
- CHAPTER 12. MARCHES, SECURITY ON THE MARCH, AND OUTPOSTS.
- CHAPTER 13. TENT DRILL AND SHELTER.
- CHAPTER 14. FIELD SANITATION, PERSONAL HYGIENE, AND FIRST AID.
- CHAPTER 15. EXTENDED-ORDER EXERCISES, COMBAT PRINCIPLES OF THE RIFLE SQUAD AND PLATOON, AND COMBAT SIGNALS.
- CHAPTER 16. TACTICS AND TECHNIQUE OF THE RIFLE COMPANY, AND INFANTRY BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 17. THE DEFENSE AND ATTACK OF CITIES, RIOT DUTY, AND NATIONAL DISASTERS.
- CHAPTER 18. PHYSICAL DRILL.
- CHAPTER 19. SMALL ARMS MARKSMANSHIP.



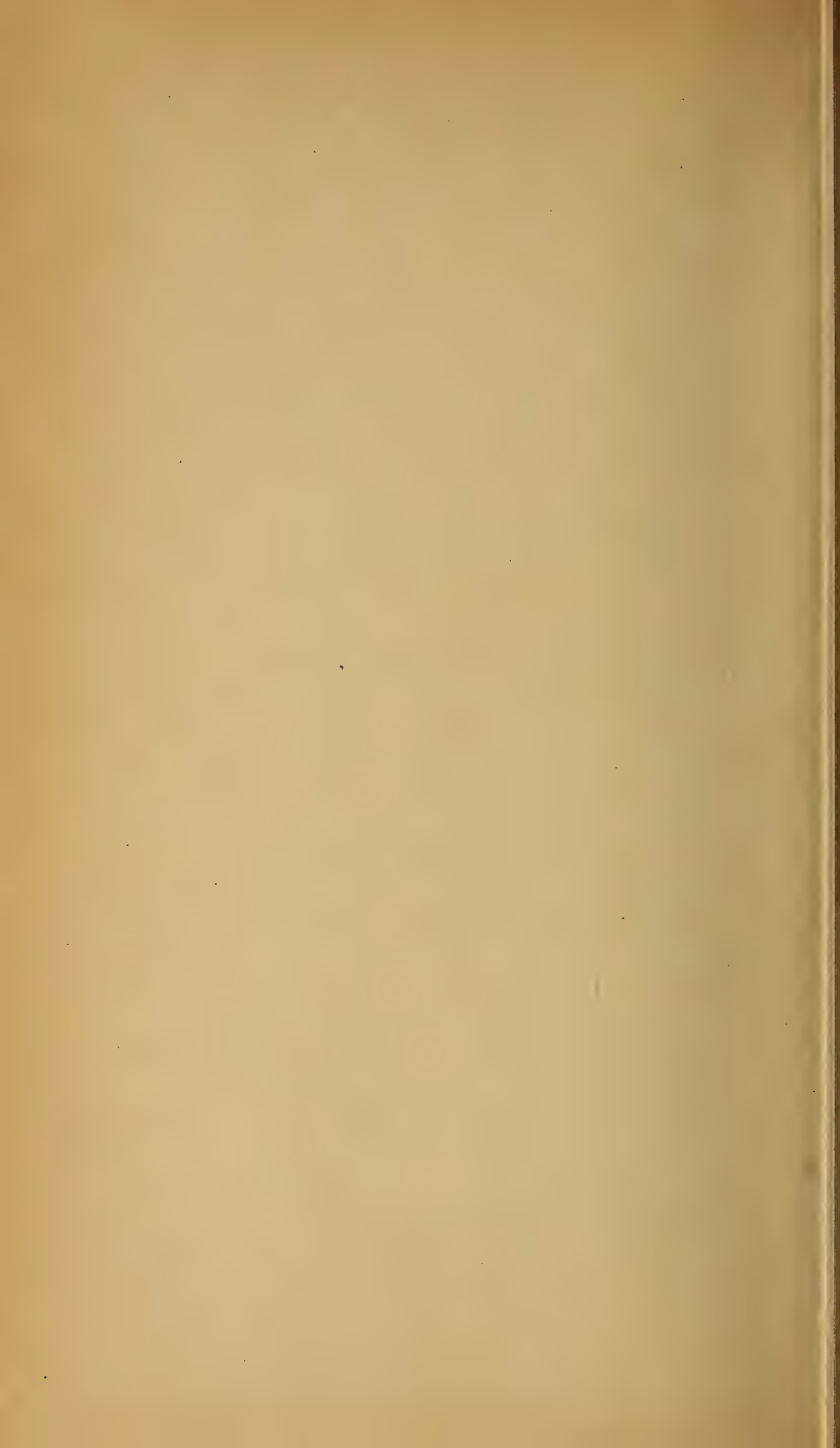
LANDING FORCE MANUAL

UNITED STATES NAVY

CHAPTER 19

SMALL ARMS MARKSMANSHIP

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SECTION I

SMALL ARMS—GENERAL

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Small arms year	19-9	5

19-1. *OBJECT*.—The object of the exercises prescribed herein is to prepare the Navy for the most effective use in war of all of the service small arms. In order that this may be accomplished it is essential that the correct firing habits become so fixed that the proper method of firing becomes the most natural method. Men in the excitement of battle will then do the correct thing, although they may be unconscious of having done so. This primary object of the exercises must be kept in mind by all officers. No details of organization or of training will be introduced which do not assist in attaining this object.

19-2. *SCOPE*.—The term “small-arms exercises” includes all the forms of practices fired with small arms and listed herein. The present publication covers only individual instruction and firing at bull’s-eye targets and at known ranges. This limitation in scope is imposed by the limited time available for small-arms training. Collective firing, or firing under conditions which simulate battle, removes the firer from the immediate supervision of the instructor, and for this reason cannot be profitably employed until after the individual instruction has been completed. It is considered that time and facilities available will ordinarily not permit individual instruction at ranges greater than 500 yards. Advantage should, however, be taken of opportunities to gain greater experience by firing at the longer ranges, provided that the firing can be done under proper supervision and without exceeding the ammunition allowance.

19-3. *ARMS*.—Unless otherwise stated, all exercises will be conducted with the service small arms. The weapons used in

SMALL ARMS GENERAL

practice firing, record firing, and in the competitions for which prize money is offered will be the service weapons, issued as a regular part of the ordnance equipment of the ship. The arms must be in their designed operating condition, without additions or subtractions. No alterations are permitted. The replacement of worn or broken parts, the smoothing of roughened bearing surfaces, and the relieving of the barrel from the pressure of a warped or swollen stock are considered to be repairs. Such repairs are permissible when done for the purpose of restoring the arm to its designed operating condition. It is incumbent on all officers and men to see that the spirit of these regulations is not violated.

19-4. *SHIPS AND STATIONS THAT FIRE*.—All vessels in a commissioned or operative status shall carry out small arms exercises as prescribed by type commanders. All shore stations shall carry out such small arms exercises as, in the discretion of the commanding officer, are permitted by the time available.

19-5. *TRAINING STATIONS*.—Recruits at training stations will be given a thorough course in rifle marksmanship training. This instruction will be as complete as the requirements of the recruit training schedule permit and will include record firing.

19-6. *PERSONNEL TO BE TRAINED*.—Under ordinary conditions there will be insufficient opportunity to give a thorough course of small-arms training to the entire complement of a ship. Since training which stops short of thoroughness is very largely wasted, the number required to be trained should be restricted to the number that can be trained thoroughly. Modification of this principle should be accepted as demanded by contingencies of the service and available ammunition allowances. In general, all officers should be familiar with the rifle and pistol and all enlisted men with the rifle since training with these weapons is basic to training with the others. The following provisions are intended as guides:

(1) All cadet, new officer, and officer candidate training should include a thorough course in rifle and pistol marksmanship.

(2) All officers should fire rifle and pistol courses when practicable but not oftener than once a year. In addition, all officers should fire an annual practice with the weapon with which armed.

(3) All enlisted men first entering the service should be given a

METHODS TO BE FOLLOWED

thorough course in rifle marksmanship during recruit training or at the first opportunity thereafter.

(4) All enlisted men whose presumptive duties as members of the landing force or as security watch standers require them to be armed, or who are normally armed in the course of their duties (as aviation and construction battalion personnel), should fire an annual practice with the weapon with which armed.

(5) Where no landing force has been prescribed, 30 percent of the ship's complement is considered a suitable proportion to receive small-arms training.

19-7. *METHODS TO BE FOLLOWED.*—The methods prescribed have been thoroughly tested and are known to produce excellent results when properly carried out. Having due regard for the special conditions existing in the Navy, they conform closely to the methods in use in the Army and Marine Corps. In an organization such as the Navy, where training is subject to interruption by special demands of the service, it is essential that the methods of training be uniform. Where more than one method is used, even if these methods be equally good, a great loss of time and effort will be caused by transfers from one method to the other. For this reason the prescribed methods are made mandatory.

19-8. *MARINES.*—Officers and enlisted men of the Marine Corps will be governed by Marine Corps regulations for marksmanship and will fire Navy courses only when facilities are not available for Marine Corps courses. Navy medals will not be awarded to Marines for qualification in Navy courses.

19-9. *SMALL-ARMS YEAR.*—The small-arms year is from July 1 to June 30.

SMALL ARMS GENERAL

UNITED STATES RIFLE, CALIBER .30, M1.—This rifle is commonly called the “M1”.—(a) *Use.*—Ships’ landing forces, drill and marksmanship training at officer and recruit activities; Naval training stations and other training stations of the Navy. It is the service rifle of the Navy.

(b) *General data:*

Operation: semiautomatic, gas operated, clip loaded, air cooled.

Caliber _____ 0.30 inches.

Over-all length _____ 43.6 inches.

Clip capacity _____ 8 rounds.

Weight _____ 10.3 pounds (w/sling).

Muzzle velocity _____ 2,600 ft./sec. (M1 ball ammo.).

Muzzle velocity _____ 2,800 ft./sec. (M2 ball ammo.).

Practical rate of aimed fire * _____ 12 shots per/min.

Maximum effective range _____ 500 yards.

(c) *Reference:*

(1) War Department Basic Field Manual, U. S. Rifle, Caliber .30, M1 (FM 23-5) c 1, 2.

(2) War Department Technical Manual, Ordnance Maintenance, U. S. Rifle, Caliber .30, M1, TM 9-1275, c 1.

* Dependent on existing circumstances.

UNITED STATES RIFLE, CALIBER .30, M1

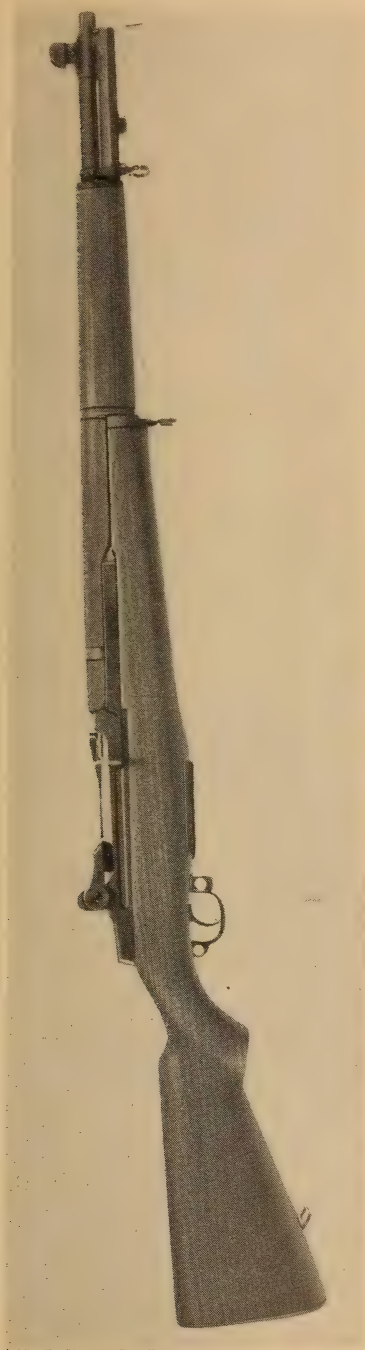


FIGURE 1.—The U. S. rifle .30, M1.

SMALL ARMS GENERAL

UNITED STATES CARBINE, CALIBER .30, M1 and M1A1.—

(a) *Use.*—This weapon is used as a replacement weapon or in lieu of the pistol. It is the basic arm of construction battalions, and used as a security weapon aboard ships and at shore stations.

(b) *General Data:*

Operation: semiautomatic, gas operated, magazine fed, air cooled.	
Length of barrel	18 inches.
Over-all length	35.5 inches.
Magazine capacity	15 rounds.
Weight with sling	5.25 pounds.
Muzzle velocity	2,000 ft./sec.
Bullet weight	193 grains.
Practical rate of aimed fire *	10 shots per/min.
Maximum effective range	300 yards.

(c) *Reference:*

(1) War Department Basic Field Manual, U. S. Carbine, Caliber .30, M1 and M1A1 (FM 23-7) c 1, 2.

(2) War Department Technical Manual, Ordnance Maintenance TM 9-1276.

* Dependent on existing circumstances.

UNITED STATES CARBINE, CALIBER .30, M1 AND M1A1



FIGURE 2.—The U. S. carbine, caliber .30 M1.

SMALL ARMS GENERAL

*THOMPSON SUBMACHINE GUN, CALIBER .45, M1A1.—**(a) Use.*—Security weapon for ships and shore stations.*(b) General data:*

Operation: recoil operated, magazine fed, air cooled, automatic or semi-automatic.

Caliber..... 0.45 inches.

Over-all length..... 31.9 inches.

Magazine capacity, box..... 20 rounds.

Weight, without magazine..... 10 pounds.

Muzzle velocity..... 802 ft./sec.

Bullet weight..... 234 grains.

Practical rate of aimed fire:

Automatic..... 100 shots per/min.

Semiautomatic..... 40 shots per/min.

Maximum effective range:

Slow fire..... 200 yards.

Automatic..... 25 yards.

(c) Reference:

(1) War Department Basic Field Manual, Thompson Submachine Gun, Caliber .45, M1928A1 (FM 23-40) c 1, 2, 3, 4.

(2) War Department Technical Manual, Ordnance Maintenance, Thompson Submachine Gun, Caliber .45, M1928A1 (TM 9-1215) c 1.

NOTE: The 1928A1, the M1, and the M1A1 are issued interchangeably.

THOMPSON SUBMACHINE GUN, CALIBER .45, M1

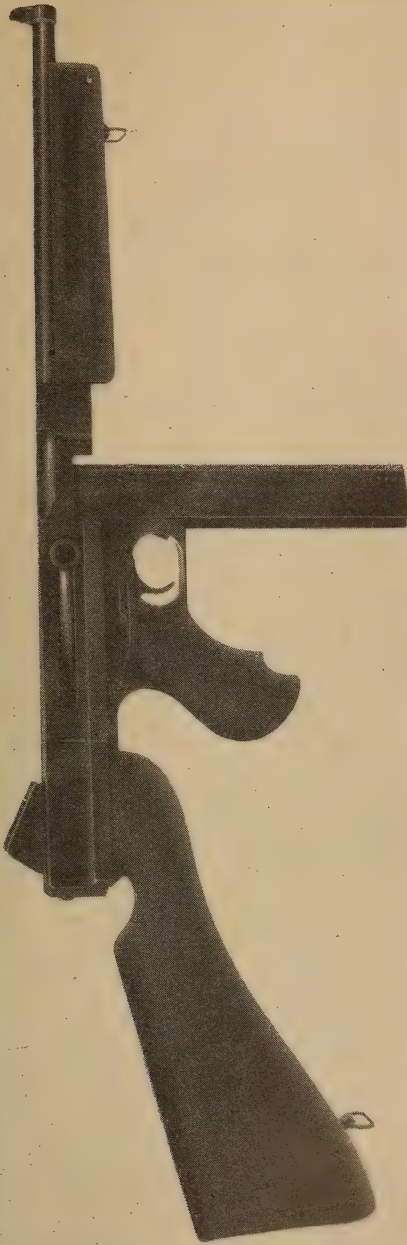


FIGURE 3.—The Thompson submachine gun, caliber .45, M1A1.

SMALL ARMS GENERAL

SUBMACHINE GUN, CALIBER .45 M3 and M3A1.—(a)
Use.—Security weapon; construction battalions.

(b) *General data:*

Operation: air cooled, blowback operated, magazine fed.	
Caliber	0.45 inches.
Over-all length	29.8 inches.
Magazine capacity	30 rounds.
Muzzle velocity	900 ft./sec.
Maximum effective range	200 yards.
Cyclic rate of fire	450 shots per/min.
Overall weight (full magazine)	10.25 pounds.

NOTE: This weapon fires full automatic but with practice the shooter may fire single rounds.

(c) *Reference:*

(1) War Department Basic Field Manual, Submachine Gun, Caliber .45, M3 (FM 23-41) c 1, 2, 3.

(2) War Department Technical Manual, Ordnance Maintenance TM 9-1217.

SUBMACHINE GUN, CALIBER .45, M3 AND M3A1



FIGURE 4.—The submachine gun, caliber .45, M3A1.

SMALL ARMS GENERAL

BROWNING AUTOMATIC RIFLE, CALIBER .30, M1918A2.

(a) *Use*.—Ships' landing forces; construction battalions.

(b) *General data*:

Operation: gas operated, air cooled, magazine fed, and automatic or semiautomatic.

Caliber	0.30 inches.
Over-all length	47 inches.
Magazine capacity	20 rounds.
Weight (complete)	19.4 pounds.
Practical rate of aimed fire	40 shots per/min.
Maximum effective range	600 yards.

(c) *Reference*:

(1) War Department Basic Field Manual Browning Automatic Rifle, Caliber .30, M1918A2 with bipod (FM 23-15) c 1, 2.

(2) War Department Technical Manual, Ordnance Maintenance, Browning Automatic Rifle, Caliber .30, all types (TM 9-1211).

BROWNING AUTOMATIC RIFLE, CALIBER .30, M1918A2

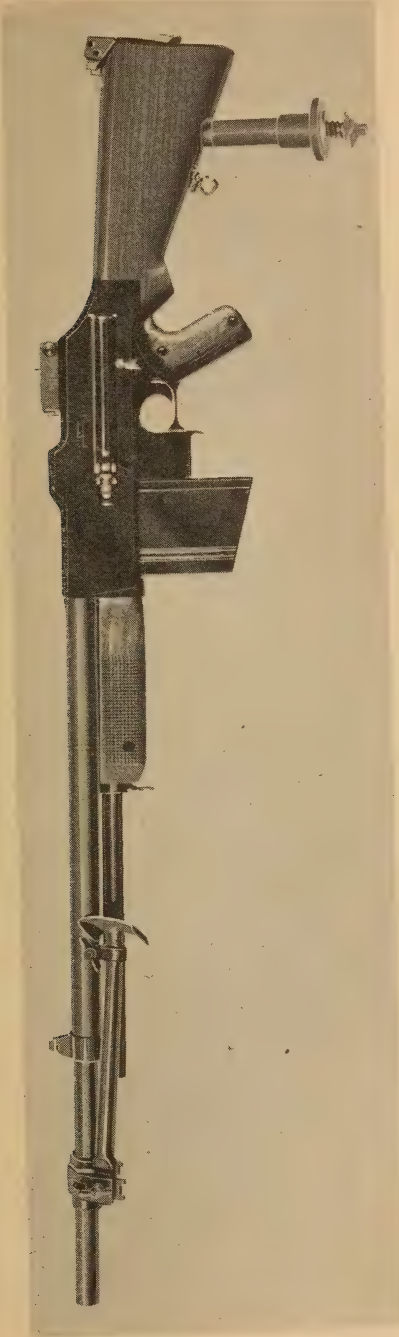


FIGURE 5.—The Browning automatic rifle, caliber .30, M1918A2.

SMALL ARMS GENERAL

SHOTGUNS.—Shotguns are used as security weapons on ships and shore stations. Various types are provided, therefore no descriptions are given here. Instruction should cover familiarization firing and familiarity with safety precautions.

Reference:

(1) War Department Technical Manual, Ordnance Maintenance, Shotguns, all types (TM 9-1285).

SHOTGUN

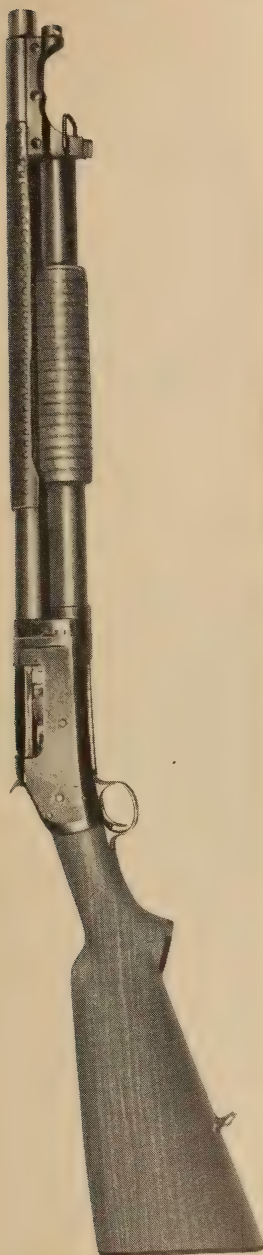


FIGURE 6.—Shotgun, riot type.

SMALL ARMS GENERAL

AUTOMATIC PISTOL, CALIBER .45 M1911 and M1911A1.—

(a) *Use.*—This pistol is the standard service pistol in the Navy. It is used as a side arm for officers and certain petty officers. It is a defensive weapon.

(b) *General data:*

Operation: recoil, semiautomatic.	
Caliber.....	0.45 inches.
Length of barrel.....	5.03 inches.
Over-all length.....	8.6 inches.
Weight with magazine.....	2.437 pounds.
Muzzle velocity.....	802 ft./sec.
Bullet weight.....	230 grains.
Practical rate of aimed fire.....	10 shots per/min.
Maximum effective range.....	50 yards.

(c) *Reference:*

- (1) War Department Basic Field Manual (FM 23-35) 30 April 1940, Automatic Pistol, caliber .45, M1911, and M1911A1, c 1, 2.
- (2) War Department Technical Manual, Ordnance Maintenance, Pistols, and Revolvers (TM 9-1295).

AUTOMATIC PISTOL, CALIBER .45, M1911 AND M1911A1



a. Left side view.



b. Right side view.

FIGURE 7.—Automatic pistol, caliber .45.

SMALL ARMS GENERAL

REVOLVER, SMITH AND WESSON, CALIBER .38.—(a) *Use.*—This revolver was adopted as a substitute weapon for the pistol. It is the standard side arm for aviation personnel only.

(b) *General data:*

Operation: manual, single or double action.	
Caliber.....	0.38 inches.
Length of barrel.....	4.0 inches.
Over-all length.....	9.125 inches.
Weight.....	29 ounces.
Muzzle velocity.....	847 ft./sec.
Bullet weight.....	158 grains.
Practical rate of aimed fire.....	6 shots per/min.
Maximum effective range.....	50 yards.

(c) *Reference:*

No government manual is published on this weapon but the instructions contained in the following are applicable:

(1) War Department Basic Field Manual, Revolver, Colt, Caliber .45, M1917, and Revolver, Smith and Wesson, Caliber .45, M1917, c 1, 2. (FM 23-36).

(2) War Department Technical Manual, Ordnance Maintenance, Pistols and Revolvers (TM 9-1295).

REVOLVER, SMITH AND WESSON, CALIBER .38



a. Right side view.



b. Left side view, cylinder open.

FIGURE 8.—Revolver, Smith and Wesson, caliber .38.

SMALL ARMS GENERAL

PISTOL, CALIBER .22, COLT, SERVICE ACE.—(a) *Use.*—
Preliminary small arms marksmanship training.

(b) *General data:*

(The characteristics of this weapon, except for caliber, are similar to the U. S. Automatic Pistol, caliber .45.)

PISTOL, CALIBER .22, COLT, SERVICE ACE



FIGURE 9.—The pistol, caliber .22, Colt, Service Ace.

SMALL ARMS GENERAL

UNITED STATES RIFLE, CALIBER .22.—(a) *Use.*—Preliminary Small Arms Marksmanship training.

(b) *General data:* (Described for the Rifle, caliber .22, “Moss-berg”, U. S. 44)

Operation: bolt, repeating, magazine fed.	
Overall length	0.43 inches.
Length of barrel	0.26 inches.
Weight	8 pounds.
Maximum effective range	100 yards.
Magazine capacity	7 rounds.

NOTE: Short, long, or long rifle rounds may be fired, but the latter are preferred.

(c) *Reference:*

(1) War Department Technical Manual, Ordnance Maintenance, Caliber .22 Rifles, all types (TM 9-280).

UNITED STATES RIFLE, CALIBER .22

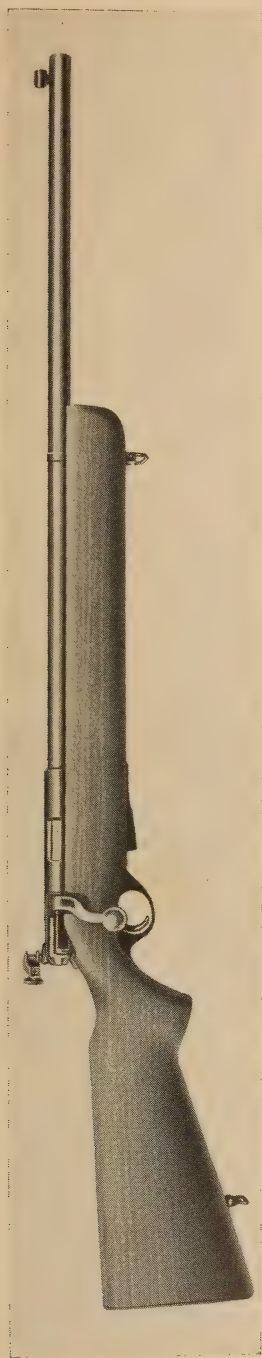


FIGURE 10.—The U. S. rifle, caliber .22.

SMALL ARMS GENERAL

BROWNING MACHINE GUN, CALIBER .30, M1919A4, Ground.—(a) *Use.*—Ships' landing forces; construction battalions; amphibious craft.

(b) *General data:*

Operation: recoil operated, belt fed, air cooled.

Caliber----- 0.30 inches.

Weight:

 Gun----- 31.5 pounds.

 Tripod Mount (M-2)----- 16.5 pounds.

Length of barrel----- 24 inches.

Over-all length----- 41.11 inches.

Muzzle velocity (M-2 ball ammo.)----- 2800 ft./sec.

Muzzle velocity (M-1 ball ammo.)----- 2600 ft./sec.

Cyclic rate of fire----- 450-625 rounds per/min.

(c) *Reference:*

(1) War Department Basic Field Manual, Browning Machine Guns, cal. .30, M1917A1, M1919A4, and M1919A6 (FM 23-55).

(2) War Department Technical Manual, Ordnance Maintenance, Browning Machine Gun, caliber .30, all types, and Ground Mounts (TM 9-1205) c 1.

BROWNING MACHINE GUN, CALIBER .30, M1919A4

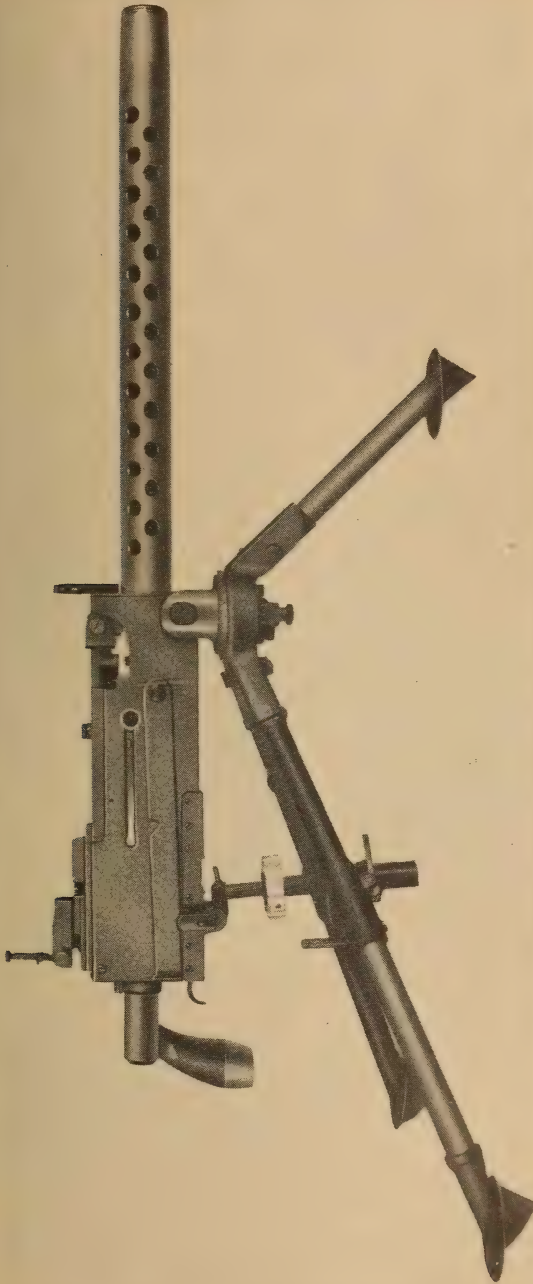


FIGURE 11.—The Browning machine gun, caliber .30, H.B., M1919A4, ground.

SMALL ARMS GENERAL

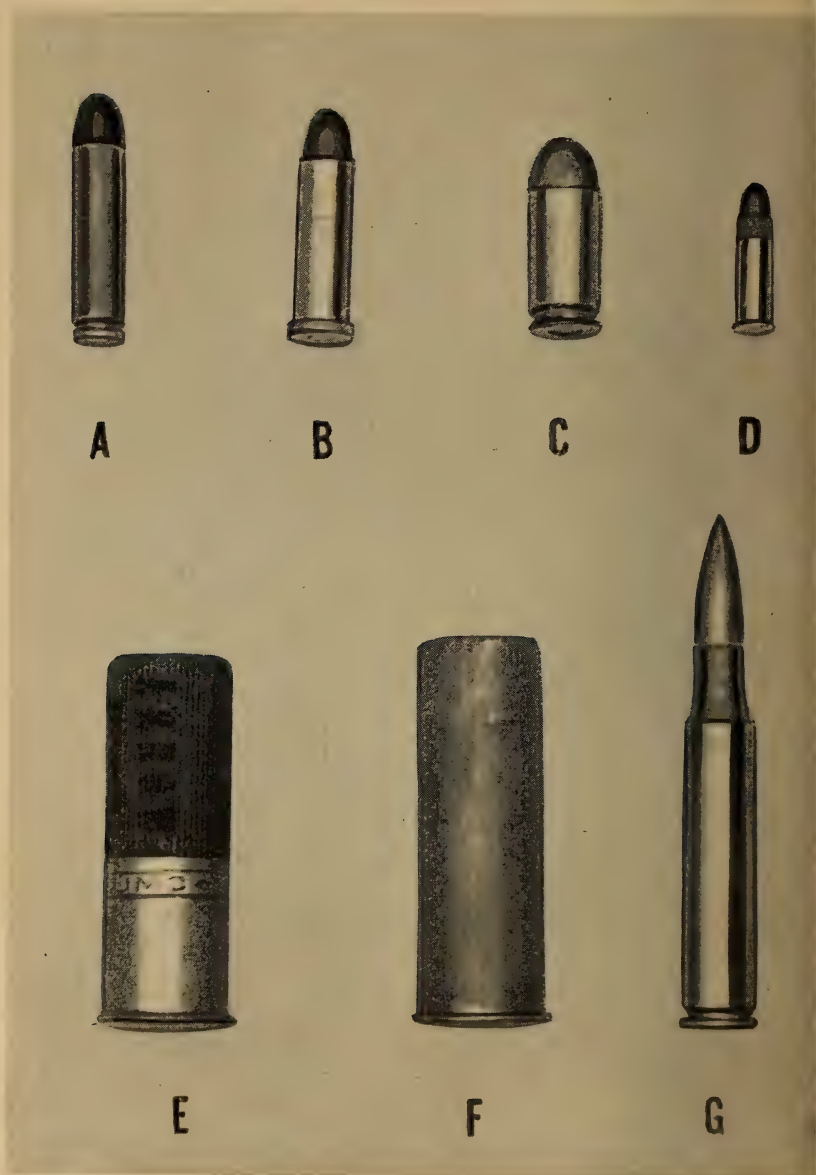


FIGURE 12.—Types of small arms ammunition.

- | | |
|-----------------------------------|-------------------------------|
| A. Cartridge, carbine, cal. .30. | E. Shell, shotgun. |
| B. Cartridge, revolver, cal. .38. | F. Shell, shotgun, riot. |
| C. Cartridge, ball, cal. .45. | G. Cartridge, ball, cal. .30. |
| D. Cartridge, ball, cal. .22. | |

SECTION II

PREPARATORY MARKSMANSHIP EXERCISES

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19-10. *STEPS IN PREPARATORY EXERCISES.*—In the preparatory exercises each of the three essential operations is taken up in order. The men are first taught to align their sights correctly. As soon as their education has reached a point where they do this, without the operation absorbing their whole attention, they are taught the proper method of holding, and to combine holding with aiming. When they can aim and hold, without having to give these combined operations their whole attention, they are taught the proper method of squeezing the trigger, and to combine this operation with aiming and holding. Each operation is thus added to what has gone before. During the first step the men are taught to aim correctly. During the second step they are taught to hold while aiming. During the third step they are taught to squeeze the trigger while aiming and holding. During the fourth step the men are taught to manipulate the piece so as to enable them to repeat the three essential operations without loss of time between shots. The fourth, or rapid-fire, step is followed by an examination, which is of sufficient importance to be considered as a step in itself. During the examination, or fifth step, the instructor assures himself that each of the men under instruction understands, and can explain in his own words, all of the points which have been covered in the instruction; and also that each man is proficient in the performance of the essential

PREPARATORY MARKSMANSHIP EXERCISES

operations. No man will be permitted to proceed with the range firing until he has satisfactorily passed this examination. Instruction in safety precautions, nomenclature, care, sight changes, and use of the score book will be given, at times within the discretion of the instructor, prior to the examination of the fifth step.

19-11. *STEPS IN SMALL-ARMS INSTRUCTION*.—In teaching men to shoot, the instruction is divided into two parts:

Preparatory exercises.

Range firing.

In the preparatory exercises the men are taught the principles of good shooting and are drilled in the correct performance of the essential operations. In range firing the men are taught to apply the principles, which they have been taught, to the actual firing of ball cartridges. The combined practice effect of both the preparatory exercises and the range firing is necessary for the formation of correct shooting habits. A thorough course in the preparatory exercises must be completed before range firing is commenced.

19-12. *THOROUGH TRAINING ESSENTIAL*.—The training must be thorough and must proceed to the point where correct shooting habits are formed. Merely telling a man how to shoot is not sufficient. This could be done, to the complete understanding of anyone of average intelligence, within the space of a few minutes. The men must not only know how to shoot but must also be drilled in the actual performance of the operations of shooting until the correct performance becomes habitual. Habit formation, involving as it does the training and coordination of several groups of muscles, cannot be done in a day. Not less than two weeks of continued practice is necessary for the formation of correct shooting habits. Even this amount of practice will be found insufficient for a considerable percentage of the men under instruction. Habits once formed, however, are tenacious and will remain active over long periods of time without further practice. Training which stops short of habit formation is very largely wasted, and the effects of such incomplete training will almost entirely disappear within the space of a few months. When the training is carried to the point where the correct shooting habits are well fixed there will be little loss of skill within the course of one year.

19-13. *DURATION OF INSTRUCTION PERIODS*.—The length of the practice period is limited by the ability of the in-

INTERVAL BETWEEN PERIODS

structor to maintain the interest and attention of the men under instruction. The monotony of repeating a simple operation in exactly the same way each time will exhaust the average attention in about 15 or 20 minutes. However, it has been found by experience that only minor changes in procedure are necessary to reawaken the interest and to sharpen the attention. By the careful introduction of such changes, the work done by each man can be varied at frequent intervals, and interest and attention sustained. With a well-laid-out schedule and with careful supervision, the practice period may be profitably extended to four hours for one period per day or two three-hour periods during the same day.

19-14. *INTERVAL BETWEEN PERIODS*.—The interval between practice periods should be as short as is practicable in order that as much as possible of the effect of one practice period may be carried over to the next. The loss of practice effect is progressive throughout the interval but in something less than a direct ratio to its length. This loss must of course be made up in the succeeding period before any further gain can be made. Consideration of economy in the time spent in training requires that practice be held at least once each day during the training period and that if practicable two practice periods be held each day. Where the training period extends over the weekend, at least one practice period should be held on Saturday. A training period which is to extend over the parts of two weeks should be started on Monday, as otherwise the smaller amount of training received before the weekend combined with the length of that interruption will cause a disproportionally large loss in the effect of the training.

19-15. *CONTINUITY OF TRAINING*.—The training must be continuous and the range firing follow immediately after the completion of the preparatory exercises. While the manner of correct performance of the essential operations has been taught during the preparatory exercises, the habit of correct performance of these operations does not become fixed until after a week or more of practice in range firing. The training being incomplete at the end of the period of preparatory exercises, a break in the training will cause a great loss of practice effect. The time spent in preparatory exercises is thus largely wasted if these exercises are not immediately followed by the range firing.

PREPARATORY MARKSMANSHIP EXERCISES

19-16. *PROCESS OF SLOW FIRE*.—The process of firing slow fire with any form of small arm consists of the performance of three simple mechanical operations:

(1) Aligning the sights with each other and with the point of aim.

(2) Holding the weapon so that the sights remain in correct alignment while the trigger is being squeezed.

(3) Squeezing the trigger in such a manner as not to disturb the sight alignment before the piece is fired.

While these are three distinct operations, it must be understood that they are not separated in time, but are performed concurrently. Thus, the operation of holding must be begun as soon as the operation of aligning the sights. While it is possible to delay the beginning of the operation of squeezing the trigger until after the sight alignment is completed, to do so will cause an unnecessary increase in the time and the effort required to fire the shot. It is preferable to start squeezing the trigger before the aim is complete, so that there is a very considerable pressure on the trigger by the time the sights are correctly aligned.

19-17. *AMOUNT OF PRACTICE REQUIRED*.—From 22 to 30 hours' preparatory exercises, including all .22 cal. firing, concentrated within the period of one week and followed immediately by one week of range firing, should produce something better than 90 percent of qualifications. This schedule requires that two practice periods be held on each week day and one period on Saturday. If conditions prevent the holding of more than one period per day, then the number of hours spent on the preparatory exercises should be increased to about 36. Including the time on the range, the total number of practice hours required to attain 90-percent qualifications is from 60 to 75 hours. With the same time spent on preparatory exercises, two weeks of range firing should produce something better than 95 percent of qualifications. The effect of increasing the time spent on the range is more beneficial than is shown by the increased percentage of qualifications. Many men who qualify in the shorter period do so with their shooting habits still in the formative stage. Without the added effect of the increased range practice, these men would lose much of their skill prior to the next target season. Reduction of the time spent on the range to less than one week will produce a disproportionately large decrease in the percentage of qualifications.

QUALITY OF INSTRUCTION

19-18. *QUALITY OF INSTRUCTION*.—The quality of the instruction should be of the highest. No pains should be spared in requiring the men under instruction to perform the essential operations in a precise and exact manner. Men under instruction inevitably reflect the attitude of the instructor. If he evinces a lack of interest and a disposition to accept a mediocre performance, the men are certain to show the same lack of interest and to acquire sloven habits. Excellent instruction is required to avoid waste of time and to reduce the time required for proper training. No degree of excellence in instruction, however, can reduce the time to a point below that which is necessary for habit formation.

19-19. *COACH-AND-PUPIL METHOD*.—For purposes of instruction the men work together in pairs. One man, the “firer”, performs the operation in question while the other man, the “coach”, watches the performance, calling attention to defects noted. After a short interval of practice, the two men will, at the direction of the instructor, exchange places so that he who was “firer” now becomes “coach” and vice versa. The two men continue to alternate in this manner, under the direction of the instructor, until the end of the practice period. The alternation of duties so brought about serves four useful purposes:

(1) It provides the frequent slight changes in procedure which are necessary to prevent loss of interest due to monotony and fatigue.

(2) It provides constant personal supervision of the training, and prevents the formation of faulty habits by the correction of minor errors as soon as they occur.

(3) It furnishes the coach an opportunity to see the bad effects caused by faulty performance and better enables him to avoid such mistakes.

(4) It tends to develop the ability of the men as instructors.

19-20. *DIVISION INTO GROUPS*.—Men under instruction are divided into groups of convenient size, usually of eight or ten men. The landing-force squad makes a convenient group. Each group is under the direct supervision of a group instructor, who will ordinarily be a petty officer from the same division as the men under instruction. For the landing-force squad, the squad petty officer should act as the group instructor, provided, of course, that he has the necessary qualifications. The work of the pairs of the various groups must be laid out so that no one is idle

PREPARATORY MARKSMANSHIP EXERCISES

during the period of instruction. Nothing is more destructive to interest and attention than standing around with nothing to do.

19-21. *GROUP INSTRUCTORS*.—The first requisite of the group instructor is that he be a good teacher. He must have the ability to require a correct and wholehearted performance of the exercises by the men of his group. Second, he must be well grounded in the essentials of good shooting and the methods of instruction. Third, he must be able to recognize good performance when he sees it and be able to analyze a poor performance so as to determine its cause. Fourth, he must be able to talk to the men of his group in such a manner as will make his meaning clear to them and to convey the conviction of the truthfulness of his statements. The ability to shoot well is not essential to the qualifications of an instructor, but will ordinarily follow from his possession of the other qualifications. The reputation of being an excellent shot is an asset to the instructor, as it gives weight to his statements and inclines the men to accept them without question. This fact, however, makes it all the more important to see that all instructors, and especially those who are expert shots, thoroughly understand the prescribed methods of instruction.

19-22. *OFFICER IN CHARGE OF INSTRUCTION*.—The officer in charge of instruction, assisted by such officer instructors as he has available, will lay out the course of instruction, make allotments of time to the various steps, and assign the subjects to be taken up at each instruction period. He, with his assistants, will supervise the work of the group instructors, keeping informed of the progress of each man and making such changes in time allotment as become necessary as the training progresses. The officer in charge of instruction and his assistants will usually participate in the explanation and demonstration with which each step is opened, and give personal assistance in backward cases.

19-23. *METHOD OF INSTRUCTION*.—The schedule of instruction for each step is as follows:

- (1) Explanation to the assembled men under instruction.
- (2) A demonstration of the work to be covered in the step.
- (3) Exercise in the work laid out for the step.

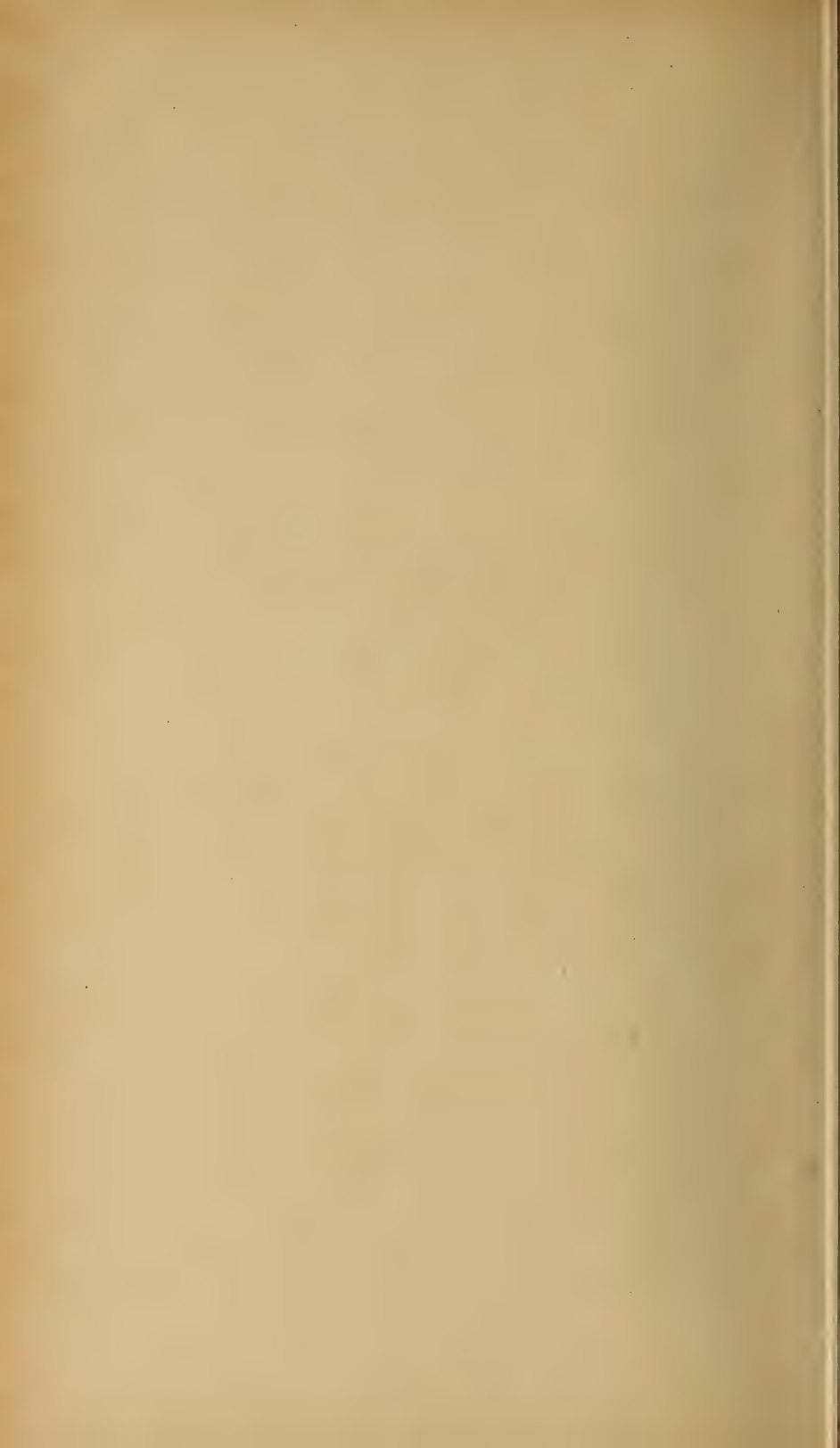
The explanation must be carefully prepared ahead of time so that the officer giving it will know exactly what he is going to say. It must not, however, be reduced to the reading of a written lecture. The explanation should be brief and confined to the step

METHOD OF INSTRUCTION

under immediate consideration. The language should be strongly affirmative. The object of the explanation is to tell the men what they must do rather than to tell them what they should avoid. The necessity for exactness in the performance of all operations must be stressed.

The demonstration of the work for each step is made by taking one group and showing just how the exercise is carried on. The group is divided into pairs, the pairs assigned a number and a routine established by which the various pairs and the men in these pairs alternate in the performance of the exercises. The work of the group must be organized so that all men are kept busy all of the time.

The exercises are carried on by the groups, each under its own group instructor, in the same manner as has been demonstrated to them. The officer in charge and the officer instructors supervise the work of the group instructors; see that the groups are properly organized so that each man is busy; see that instructions are correctly interpreted; and that the exercises are carried on in a careful and precise manner.



SECTION III

NOMENCLATURE: SIGHTING AND AIMING

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Correct sight alignment.....	19-28	43
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19-24. **NOMENCLATURE.**—Instruction in nomenclature is given shortly after the men are issued the rifle. The use of wall charts, film strips, and movies are excellent training aids in putting over the subject of nomenclature. Assembly and disassembly by groups under instruction are excellent methods of teaching nomenclature simultaneously.

Disassembly of the U. S. Rifle, cal. .30 M1 is broken down in three main groups, *i.e.* (1) Stock Group (2) Barrel and Receiver Group, and (3) Trigger Housing Group. To disassemble the three main groups proceed as follows:



FIGURE 13.—Main groups of the rifle.

NOMENCLATURE: SIGHTING AND AIMING

19-25. *DISASSEMBLY OF MAIN GROUPS.*—Grasp rifle with left hand so that base of trigger housing is included in the grip. Place butt of rifle against left thigh. Grasp rear portion of trigger guard with thumb and finger of right hand and exert enough pressure toward the butt to unlatch trigger guard from trigger housing. Then swing trigger guard away from trigger housing to extreme opened position. Pull out trigger housing group and place on clean flat surface. Grasp rifle over rear of the receiver with left hand, muzzle to left. Strike and grasp small of stock with right hand so as to separate stock group from barrel and receiver group.

Disassembly of Barrel and Receiver Group.—Place group with the sights down and muzzle to the left. Grasp follower rod with left thumb and forefinger and disengage it from the follower arm by pressure toward muzzle. Withdraw follower rod and operating rod spring to the right. When follower rod and operating rod spring are attached, do not separate.

Push follower arm pin from its seat by starting it with the drift

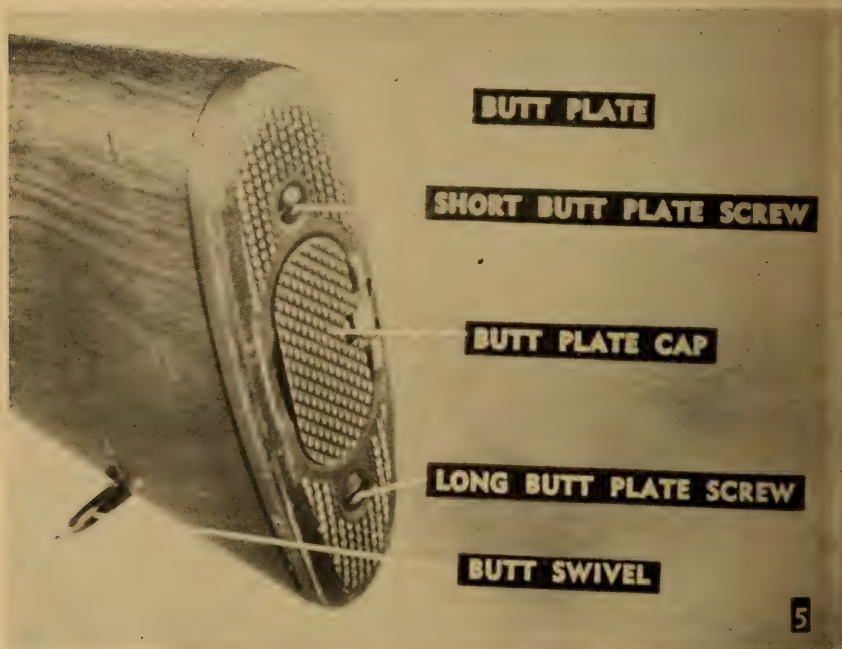


FIGURE 14.—Butt plate.

DISASSEMBLY OF TRIGGER HOUSING GROUPS

FRONT SIGHT WINGS

FRONT SIGHT

FRONT SIGHT SCREW

MUZZLE

GAS CYLINDER LOCK

GAS CYLINDER LOCK SCREW

GAS CYLINDER

8

FIGURE 15.—Gas cylinder lock and screw.

of combination tool held in right hand and applied on side of receiver farthest from body. Pull out pin from rear side with left hand. Grasp bullet guide, follower arm, and operating rod catch assembly and pull to the left until these parts are disengaged. Lift out and separate these three parts. Do not remove accelerator from operating rod catch assembly since accelerator pin is riveted in its seat. Lift out follower with follower slide attached. Do not separate follower from follower slide.

Grasp barrel and receiver group with left hand and operating rod handle with right hand. Move operating rod slowly to the rear, pulling operating rod handle upward and away from receiver. This will disengage operating rod from bolt when lug on operating rod slides up into dismount notch of operating rod guide groove in receiver. When operating rod is thus disengaged, remove it with a downward and rearward movement.

Disassembly of Trigger Housing Group.—Close and latch trigger guard. Release hammer to fired position and hold group in right hand with right thumb on sear, forefinger pulling back on trigger, base of trigger housing braced against a firm support, and

NOMENCLATURE: SIGHTING AND AIMING

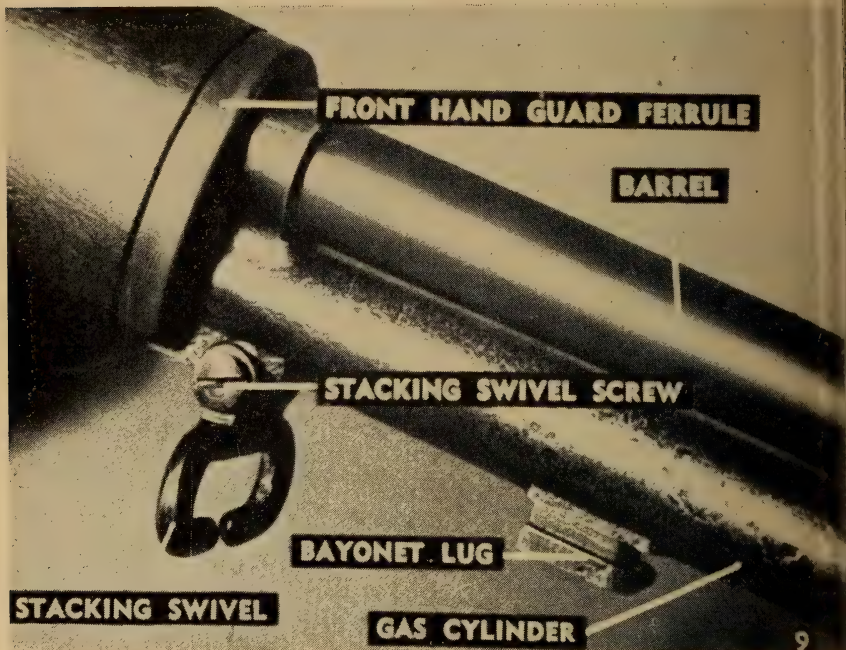


FIGURE 16—Gas cylinder and bayonet lug.

press on sear with right thumb to relieve tension on trigger pin. Start trigger pin from its seat with point of bullet or combination tool held in left hand, then remove it. Release pressure of right thumb and forefinger, gradually permitting hammer spring to extend to its full length, at the same time steadying hammer spring housing with fingers of left hand. Remove trigger assembly but do not remove sear pin or sear. Remove hammer spring housing, hammer spring, and hammer spring plunger, and separate these parts. Push out hammer pin from left side and remove hammer. To remove safety, push its stud out from left side of trigger housing until stud snaps out of its seat; then lift safety from slot in trigger housing.

Hold trigger housing in left hand, base of trigger housing down and away from body. Swing trigger guard to open position with right hand. Slide trigger guard toward body until hammer pin holes are over the center of safety slot. Rotate trigger guard to right and upward with right hand until wings of the trigger guard clear edge of trigger housing. Remove the trigger guard.

DISASSEMBLY OF BOLT ASSEMBLY

Hold trigger housing in left hand, right side down, rear end resting on a solid surface. Insert point of a bullet or combination tool in dismounting hole in left side of housing and push out clip ejector.

Disassembly of Bolt Assembly.—Grasp bolt by operating lug and while sliding it from rear to front, lift it up and out to the right front with a slight rotary motion. Grasp bolt in left hand, holding firing pin in place with little finger, extractor to right, front end up, thumb on front end of bolt to prevent ejector from flying out. Insert point of bullet or combination tool between lower edge of extractor and cartridge seat flange on bolt and pry extractor.



FIGURE 17.—Receiver.

NOMENCLATURE: SIGHTING AND AIMING

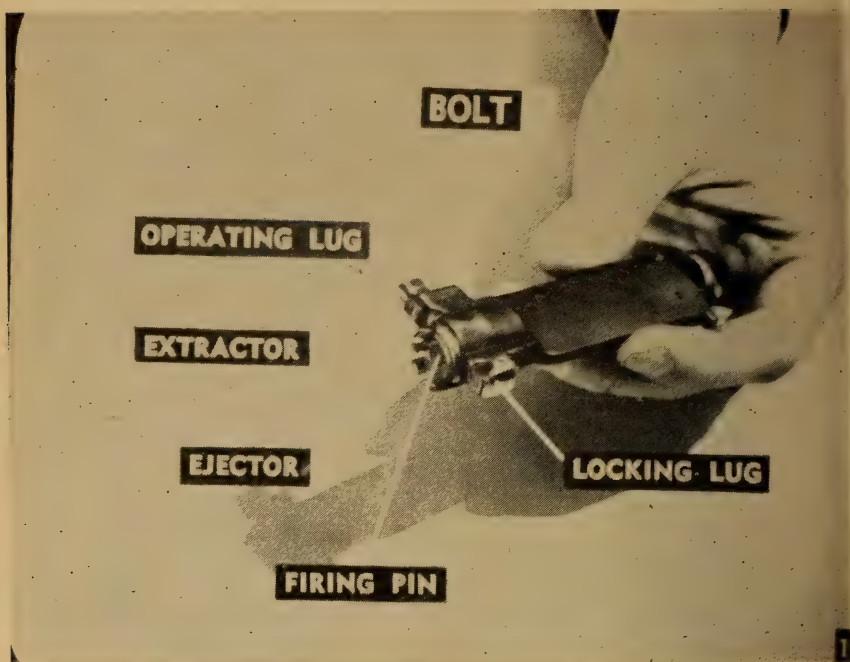


FIGURE 18.—Bolt.

19-26. *IMPORTANCE OF SIGHTING AND AIMING.*—The exact alignment of the sights with each other and with the aiming point is necessary for accurate shooting. Due to the short distance between the sights a small error in aligning the sights causes a considerable error at the target. Fortunately, however, the correct method of sighting is very easily learned and very accurate results can be obtained with a small amount of thorough training. With men who have been given the preparatory exercises prescribed herein, poor shooting is seldom, if ever, caused by faulty aiming.

19-27. *CORRECT METHOD OF AIMING.*—*a.* With the peep sight the eye looks through the peep without focussing on it. The outline of the peep is blurred but the center of it is clear. The tip of the front sight is brought to the center of this clear space. Keeping the two sights so aligned, both sights are moved together until the tip of the front sight is just under the bull's-eye as will allow the bull's-eye to be seen as a full clear circle without blurring or distortion. The appearance of the properly aligned sights and

CORRECT SIGHT ALIGNMENT

bull's-eye is impressed on the memory so that any error of alignment is instantly recognized.

b. With the open sight more attention must be paid to the appearance of the rear sight. The firer must look at the rear sight as well as at the front sight and at the bull's-eye. With somewhat more practice than is required for the peep sight, the correct appearance of the open sights may be memorized so that errors of alignment are readily apparent.

19-28. *CORRECT SIGHT ALIGNMENT.*—Service small arms are fitted with two types of sights, the peep and the open sight. Where the peep sight is fitted it should be used for all firing.

a. The peep sight.—The correct alignment of the peep sight is shown in Figure 19. It will be noted that the tip of the front sight is in the center of the peep. The bull's-eye is wholly within the upper half of the peep.

b. The open sight.—The correct alignment of the open sight is shown in Figure 19. It will be noted that the tip of the front sight is level with the top of the open sight bar. The bull's-eye is wholly above the bar.



Open sight.



Peep sight.

Figure 19.—Correct sight alignment.

NOMENCLATURE: SIGHTING AND AIMING

19-29. *INSTRUCTION IN SIGHTING AND AIMING.*—The correct method of aligning the sights is explained and is illustrated by the use of diagrams and the Instructional Sighting Device.

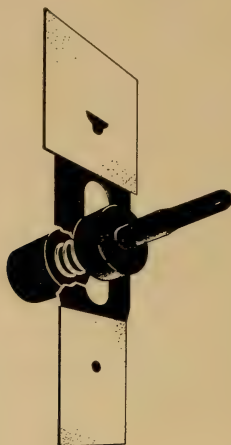


FIGURE 19A.—Instructional sighting device.

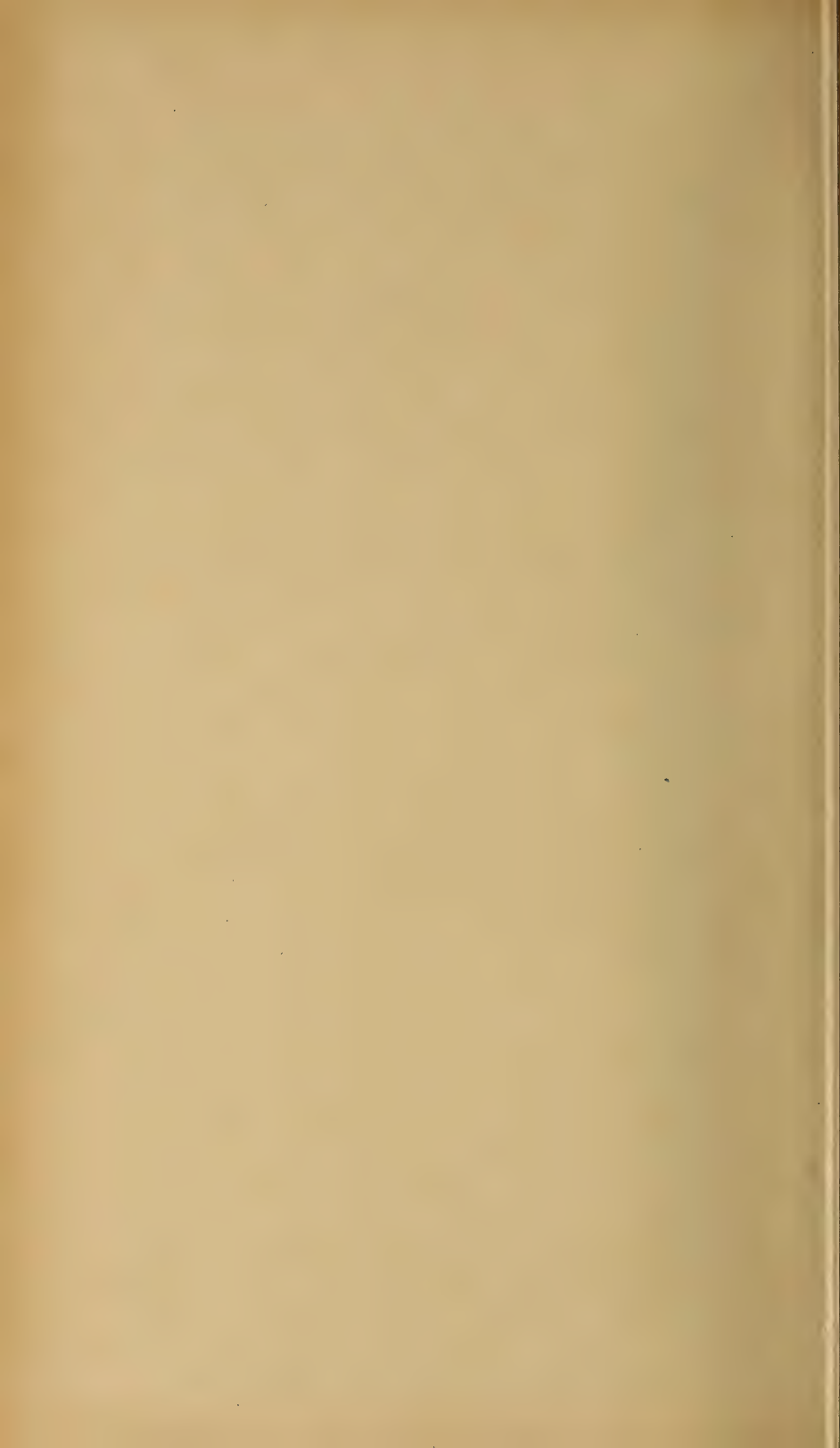
The use of the sighting device is demonstrated. The men under instruction are exercised in the use of the sighting device until they are familiar with the appearance of the sights when correctly aligned on the bull's-eye. Not more than two full instruction periods are required for the separate instruction in sighting and aiming. Aiming instruction is, however, continued in conjunction with the position and trigger squeeze exercises. This is done by providing a series of small aiming bull's-eyes conveniently located for aiming in each of the three positions. These small aiming bull's-eyes should be at least 20 feet from the firers and preferably at a greater distance.

BLACKENING SIGHTS

19-30. *BLACKENING SIGHTS*.—Blackening sights should be done in the first preparatory exercises. Sights, both rear and front, can be blackened with a carbide lamp, kerosene lamp, candle, or small pine stick. Oil should be removed before blackening.



FIGURE 20.—Instructional sighting device in operation.



SECTION IV

POSITIONS

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19-31. *USE OF THE SLING.*—The sling is an important aid to steady holding in the prone and sitting positions. With the elbows resting on the ground or on the knees, the use of the sling permits the rifle to be propped into position with little or no muscular effort. With the muscles properly relaxed, the whole position would collapse if it were not tied together by the sling. The tension on the sling is that due to the weight which it supports. This weight includes the weight of the left forearm, the rifle, the head, and a considerable portion of the weight of the upper part of the body. Increasing the tension beyond that necessary to support these weights requires an unnecessary and undesirable expenditure of muscular effort. To one who is accustomed to its use the properly adjusted sling causes no discomfort. Untrained men, however, always believe that the properly adjusted sling is too tight. This is due to the fact that they have not learned to relax properly and are opposing the stricture of the sling by hardening the muscles of the left arm. For this reason the instructor must be the judge of the length of the sling to be used by the untrained man. It will be found that there is surprisingly little difference in the lengths of the slings required by men of different builds. In the standing position, where the left elbow is unsupported, the use of the sling is prohibited.

19-32. *INSTRUCTION IN THE USE OF SLING.*—The principal instruction in the use of the sling is given at the beginning of the first period of instruction in positions. After the usual

POSITIONS

explanation and demonstration, the men under instruction are required to make repetitions of the adjustment of the length of the sling and its proper adjustment on the left arm. Each of these trials starts with the sling in the parade position. Subsequent instruction in the use of the sling is given in conjunction with the instruction in positions and the methods of assuming them.

19-33. *CORRECT SLING ADJUSTMENT*.—To adjust the sling for use in the prone and sitting positions—

(1) Disengage the hook of the short strap from the long strap and hook it into its own part.

(2) Adjust the free loop of the long strap so that when it is pulled back taut the end of the loop comes even with the comb of the stock.

(3) The keeper on the sling should be placed so that it is situated between the hook of the long strap and the free end of the loop.

(4) Bending the left hand back at right angles to the wrist, insert it, from the right side, into the free loop of the long strap.

(5) With the right hand adjust the loop well up on the left upper arm, and push the keeper back against the left upper arm.

(6) With the rifle held approximately horizontally, pass the left hand to the left, then over both parts of the long strap and grasp the stock with the left hand near the lower band swivel.

(7) Slide the left hand out against the pressure of the sling as far as it will go toward the lower band.

19-34. *IMPORTANCE OF GOOD POSITION*.—A good position is a requisite to the best results in rifle shooting. The better the position the easier it is to hold, and consequently the less the attention is distracted from the all-important operation of squeezing the trigger while the sights are properly aligned. No degree of excellence in the position will, however, compensate for a lack of practice. The time available for rifle training should be devoted to practice and not to a search for minor variations in positions to suit individual peculiarities.

19-35. *STANDARD POSITIONS*.—The standard positions prescribed in these rules are four in number: Prone, sitting, kneeling and standing. These positions have been selected as a result of experience and have been found to produce excellent results with men of all physical types. The untrained man will at first have

CORRECT SLING ADJUSTMENT



FIGURE 21.—3 steps in getting into the sling correctly.

POSITIONS

some difficulty in assuming these positions, but this difficulty will disappear with practice. The initial difficulties experienced by the untrained men produce a tendency to depart from the standard positions and in some cases to a continual experimentation with variations in position. These tendencies should be immediately checked and all men required to use the standard positions. A good position with adequate training is preferable to a better position with less training.

19-36. *CONSIDERATIONS APPLICABLE TO ALL POSITIONS.*—*a.* No rifle supported by the body of the firer is ever perfectly still. In general, the unsteadiness increases with the number of muscles involved in holding the rifle. Propping the rifle in position with the rigid bony framework of the body increases the steadiness of holding.

b. In any position, with the attention relaxed, the involuntary movement of the body will cause corresponding movements of the rifle. If these movements are observed through the sights, it will be seen that the line of sight moves irregularly back and forth over a definite area of the target. A conscious effort is required to direct the sights at a point outside of this area. When the firer concentrates on squeezing the trigger the conscious effort of holding is somewhat relaxed. This results in the rifle and the shot being deflected toward the area on which the sights align when the attention is relaxed. The position is then correct only when the desired aiming point lies well within the area on which the sights align when the attention is relaxed. The correctness of the position may be checked by closing the eyes for a few seconds, and then, upon opening them, noting the part of the target on which the sights are aligned. If this is not the desired aiming point, the whole body should be moved until the sights align naturally on or near to the desired aiming point.

c. The pulsation of the firer's body and the trembling of his muscles have little effect on the accuracy of the fire. The resulting total displacement of the rifle is small and is such that the barrel remains parallel to its correct position. The parallel movements of the rifle cause only minor deviations in the fall of the shot. Canting the rifle has no appreciable effect at 200 yards.

d. The firer's balance should be sufficiently stable as not to be seriously disturbed by the force of the recoil.

INSTRUCTION IN POSITION

e. The position of the firer's hands and arms should be such that—

(1) He has full control of the rifle at all times.

(2) He can reload with facility without any major change of position.

f. The position should be comfortable and one which can be maintained without strain.

g. A conscious effort should be made to relax as much as practicable before concentrating on the squeezing of the trigger.

h. The slack in the trigger should be taken up as soon as the position has been assumed and during the time that the sights are being aligned.

i. During the final operation of squeezing the trigger the breath should be held. The correct method of doing this is to:

(1) Take an ordinary breath.

(2) Let out somewhat less than half of it.

(3) Hold the rest by closing the throat and not by muscular effort. The muscles of the diaphragm should be relaxed.

19-37. *INSTRUCTION IN POSITION.*—*a.* The officer in charge of instruction starts with an explanation of the subject matter of paragraph 19-36. One of the instruction groups is used to demonstrate the methods of instruction and to illustrate—

(*a*) The method of controlling the breathing.

(*b*) The method of taking up the slack.

(*c*) The sling adjustment and use of the sling.

(*d*) The method of assuming the prone position.

(*e*) The prone position.

(*f*) The sitting position.

(*g*) The kneeling position.

(*h*) The standing position.

(*i*) The instruction for the first and second periods should cover items *a*) through *c*), and *d*) through *h*).

After the demonstration of the items to be covered during the period, the group instructors proceed with the instruction of their groups.

b. The individual instruction consists of—

(1) Requiring each man of a pair to repeatedly perform the various operations in the prescribed manner; and

(2) Requiring each man of a pair to observe the manner in which the other member of his pair performs the same operations.

It should be remembered that the amount of training will de-

POSITIONS

pend on the number of times each operation is repeated rather than on the amount of time spent in each repetition.

The instruction in sling adjustment is followed by instruction in the prone position and the method of assuming it. With the loop sling loose and adjusted to the correct length, the men are required to get into the sling and to assume the position in the prescribed manner. This includes the taking up of the slack, aiming, breath control and proper relaxation. Instruction in the sitting, kneeling, and standing should follow in a similar manner.

19-38. *PRONE POSITION*.—*a. Method of assuming*.—In order to avoid the formation of wasteful habits a routine method of assuming the prone position should be used from the beginning of the instruction. The following method differs from that used in the other services, but it is equally as rapid and is more suited for practicing on the steel or wooden decks of ships. The procedure is as follows:

- (1) Adjust the sling as described in paragraph 19-33.
- (2) Select the spot on which it is desired to place the left elbow.



FIGURE 22.—Prone position.

(3) Kneel on the right knee, with knee a few inches to the right and rear of the selected spot.

(4) Place left elbow on the selected spot and at the same time let the left leg slide to the rear.

(5) Throw the weight of the body on the left elbow and slide both feet to the rear on the bent toes.

(6) Bring rifle to the shoulder and place right elbow on the ground.

b. Description.—This is the most steady of all the positions where no artificial rest is used. In this position a trained man can for a few seconds at a time hold so steadily that there is no perceptible motion of the sights.

SITTING POSITION

19-39. *SITTING POSITION*.—*a*. The sling is adjusted as explained in paragraph 19-33. The body faces about 45° to the right of the line of fire. The buttocks and the bottoms of the feet only



FIGURE 23.—Sitting position.



FIGURE 24.—Sitting position (alternate).

POSITIONS

rest on the ground. The heels are dug into the ground slightly to prevent slipping. The legs are spread apart to a comfortable extent and the elbows are supported by the knees and legs. Some slight experimentation will be required to find the best position for the elbows. The back of the right elbow is supported by the inner side of the right leg. The body should lean far enough forward so that the balance is not disturbed by the recoil, but not so far as to cause difficulty in aligning the sights on the target. The muscles cannot be relaxed to as great an extent in the sitting position as is the case in the prone position. Unnecessary hardening of the muscles must, however, be guarded against. The head is supported by the stock with neck muscles relaxed. The body is propped in position by the rifle, which in turn is held by the sling.

b. The front sight is centered in the peep and the forefinger of the right hand takes up the slack of the trigger. As far as practicable the muscles are relaxed. The breath is held as described in paragraph 19-36 (i). The right eye is now closed for a few seconds and then opened. The point on the target at which the sights are directed is noted when the eye opens. If this point is not the desired point of aim, the whole body is moved until the sights line up naturally on the desired point of aim.

19-40. *STANDING POSITION.*—a. This is the least steady of the four standard positions. In the standing position even the most expert shot will have difficulty in holding the sights in correct alignment for more than a few seconds at a time. The body is faced almost at right angles to the line of fire and is erect with weight equally distributed on both legs. The feet are placed about 15 inches apart, no effort being made to turn the toes either in or out. The left hand grasps the stock lightly between the rear sight and the lower band. The left elbow is under the rifle. The right hand grasps the small of the stock firmly and pulls the stock back hard against the shoulder. The right elbow is at about the height of the shoulder or above it. Most of the weight of the rifle is supported by the pull of the right hand, while the left hand, supporting little of the weight, acts more as a guide. The head rests naturally on the stock with neck muscles relaxed.

b. The front sight is centered in the peep and the right forefinger takes up the slack of the trigger. The right eye is closed for a few seconds and when opened the point at which the sights are directed is noted.

KNEELING POSITION



FIGURE 25.—Standing position.

19-41. *KNEELING POSITION*.—*a*. The sling is adjusted as prescribed in paragraph 19-33. The position is taken by half facing to the right and dropping to the right knee. The left foreleg is nearly vertical and the left knee is under the rifle with the right



FIGURE 26.—Kneeling position.

POSITIONS

leg about parallel to the firing line. The left foot is on a vertical line midway between right foot and right knee with the buttocks resting on inside of right foot or right heel. The left elbow is extended over the left knee, left hand out to swivel, cheek against stock, sling taut, and body inclined forward.

b. On assuming the kneeling position the front sight is centered in the peep and the forefinger of the right hand takes up the slack of the trigger. As far as practicable the muscles are relaxed. Proper breathing is necessary as described in paragraph 19-36 (*i*). The right eye is closed for a few seconds, reopened, and the point on the target at which the sights are directed is noted. If this point is not the point of aim shift the body until the sights line up naturally on the desired aiming point.

SECTION V

TRIGGER SQUEEZE

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19-42. IMPORTANCE OF TRIGGER SQUEEZE.—The correct trigger squeeze is the most important part of small-arms shooting. Men who have mastered the correct method of squeezing the trigger are able to make excellent scores under even the most adverse conditions. Those who have not mastered the correct method of squeezing the trigger are unable to make good scores under any conditions. An incorrect method of squeezing the trigger is the cause of most poor shooting. A man who has mastered the correct method of squeezing in any one position will have little difficulty in any other position.

19-43. CORRECT METHOD OF TRIGGER SQUEEZE.—The mechanical operation of the correct trigger squeeze is a very simple one. The pressure on the trigger is applied straight back, in a line parallel to the bore. If there is any sidewise pressure on the trigger, the release of the sear will result in an unbalanced pressure, which will cause a sidewise deflection of the shot. The pressure on the trigger, the release of the sear will result in an unbalanced pressure, which will cause a sidewise deflection of the shot. The pressure on the trigger is increased gradually until it is sufficient to release the sear. Sudden, jerky increases of pressure disturb the aim and make it impossible to hold on. So long as the increases of pressure are applied smoothly and without jerks, there need be no limit on the rapidity with which they are applied. The whole operation of squeezing the trigger should not take more than 2 or 3 seconds and with practice can readily be reduced to less than 1 second.

19-44. FLINCHING.—*a. Cause and effect.*—Flinching is caused by the involuntary, spasmodic, hardening of the muscles in order to withstand the shock of recoil. The bad effect of flinching is due to the fact that the recoil is anticipated. The spasmodic

TRIGGER SQUEEZE

bracing of the body takes place just before the piece is fired, resulting in a serious disturbance of the aim.

b. Flinching a natural reaction.—All men instinctively try to avoid the consequences of an expected blow. A lifetime of habit has strengthened this natural impulse. The man may be perfectly aware that the expected blow is not a serious one, but nevertheless will, unless otherwise trained, brace himself to withstand it. The impulse to flinch is so natural and so habitual that men who flinch are seldom aware of the fact that they do so. The movement due to the recoil ordinarily masks the movement due to the flinch which immediately precedes it.

c. Flinching demonstrated.—It is sometimes difficult to make men believe that they flinch. With such men, nothing can be done until they are convinced of their fault. This is difficult, as men seldom flinch with a rifle or pistol which they know to be unloaded. The best procedure in these cases is for the instructor to load the magazine with a mixture of live and dummy cartridges. The derangement of the aim, due to flinching, will be readily apparent to the firer when he snaps on the dummy cartridges.

d. Flinching detected.—In flinching the firer invariably closes the sighting eye before the shot is fired. In order to detect flinching, the coach need only watch the firer's eye. If the firer's eye can be seen to close, it is a sure indication that he is flinching.

19-45. METHODS OF PREVENTING FLINCHING.—Careful instruction is necessary, both in the preparatory exercises and in the range instruction, if the habit of flinching is to be overcome. Without this careful instruction the beginner will not improve, but will get worse the more he fires. The best method of overcoming the habit of flinching is to train the man to fire under conditions which make it difficult for him to flinch. These conditions are—

a. The muscles relaxed.—If the muscles are kept relaxed until the sear is released, it is impossible to flinch in time to disturb the fall of the shot. It is, however, very difficult to keep the muscles perfectly relaxed in an unfamiliar or uncomfortable position. For this reason, the men must become accustomed to the position, and be able to assume it easily, before instruction in trigger squeeze is given. In order that the instruction in trigger squeeze may not be too long delayed, it should be given first in the steadiest and most comfortable position.

b. Firer required to call the shot.—The firer is instructed to

INSTRUCTION IN TRIGGER SQUEEZE

continue the aim until the shot is fired. He is required to designate the part of the target on which the sights were aligned at the instant of discharge. The inability to do this indicates that he closed his eye, *i.e.*, flinched, just before firing. The persistent effort of the firer to see the sights right up to the instant of discharge will assist in preventing flinching.

c. The instructor squeezes the trigger.—For the first few trials during the preparatory exercises and for the first few shots on the range, the instructor squeezes the trigger while the firer aims. The purpose of this is to show the firer how to apply the pressure on the trigger, and to demonstrate to him that there is no derangement of the aim when the trigger is properly squeezed. The instructor takes position alongside of the firer, resting his weight on the right elbow, and supporting the right wrist with the left hand. The instructor's right thumb is placed over the firer's forefinger, which rests on the trigger. The instructor's forefinger is placed in rear of the trigger guard. The instructor squeezes the trigger with a pinching action of the thumb and forefinger. While squeezing the trigger, the instructor watches the back of the firer to note his breathing. When the firer holds his breath, it is an indication that he is aiming and that the sights are properly aligned.

d. The gradual squeeze.—When the instructor squeezes the trigger there is no disturbance of the aim. This is due to two reasons: First the pressure is applied straight back in a line parallel to the bore, so that there is no unbalanced pressure when the sear is released. Second, the pressure is gradually applied so that the firer does not know exactly when the discharge will take place. The discharge coming unexpectedly, does not give the firer time to brace himself. He does not flinch because he does not know when to do so. In order that a similar effect may be produced when the firer himself squeezes the trigger, he is instructed to increase the pressure gradually. When the trigger is squeezed with a gradually increasing pressure, the firer cannot foretell the exact instant when there will be enough pressure to release the sear, and consequently does not know when to flinch. The firer then squeezes the trigger in such a manner that he does not know exactly when the rifle will be fired.

19-46. *INSTRUCTION IN TRIGGER SQUEEZE.*—The instructor explains the importance of the trigger squeeze and the correct method of performing it. He then selects one pair from the men to be instructed and demonstrates the method of detecting

TRIGGER SQUEEZE

flinching by watching the firer's eye, and the method in which the coach squeezes the trigger while the firer aims. The "firers" and "coaches" are then required to assume their correct positions, and the instructor assures himself that these positions are correct before the individual instruction is allowed to proceed. Succeeding periods are begun in a similar manner with an explanation and a demonstration. During the second period the instruction should be confined to the prone position only. In subsequent periods the first instruction is given in the prone position followed by instruction in the sitting, kneeling and standing positions.

SECTION VI

RAPID FIRE

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19-47. *RAPID FIRE*.—Rapid fire is the uninterrupted sequence of shots delivered without loss of time. Time is gained by rapidly assuming the position, taking up the slack of the trigger quickly, and reloading the weapon with no loss of time or motion.

(A) *Rapidly Assuming Positions*.—

a. *Prone*.—Take the correct prone position and mark the spots on the ground where the elbows will rest and the point just immediately below where the butt of the rifle rests. Rise, first to the knees, then to the feet keeping feet in place.

The best practice for assuming the prone position rapidly is doing it by the numbers in five counts:

(1) Being at the ready with loop sling adjusted, the left hand just below the stock ferrule swivel and the right hand at the heel of the butt, bend both knees to the ground and lean back slightly.

(2) Place the toe of the butt of the rifle on the ground in the place previously marked.

(3) Place the left elbow on the ground in the place previously marked.

(4) Place the butt of the rifle against the right shoulder with the heel of the hand against the butt plate.

(5) Grasp the small of the stock with the right hand, place the right elbow on the ground in the place previously marked and assume the aiming position.

RAPID FIRE



FIGURE 27.—Assuming prone position rapidly.

RAPID FIRE

b. Sitting.—Take the correct sitting position. Mark and prepare positions of the heels. Mark the spot for the buttocks and the rise keeping the feet in place. To get in this position rapidly proceed:

(1) Sit down in the spot marked for the buttocks, breaking the fall with the right hand.

(2) Place the left arm in position.

(3) With the heel of the right hand on the butt, place the butt against the shoulder.

(4) Grasp the small of the stock with the right hand and assume the aiming position.

c. Kneeling position.—Take the correct kneeling position. Mark the position of the left foot and right knee. Rise with the right toe in its marked place and left foot in its proper place. To assume the position rapidly:

(1) Kneel with the right knee in its marked place.

(2) Put the left arm in position.

(3) With the heel of the right hand on the butt place the butt in the shoulder.

(4) Grasp the small of the stock with the right hand and assume the aiming position.

After several practices of assuming the positions rapidly by the numbers, the pupils then assume the positions individually until they can perform the operation quickly and smoothly. In each instance after taking the aiming position, the pupil checks his position by lining up his sights with the target, closes his eye, and then reopens his eye to see whether his sights are still on the target. If they are not, correct the position of the entire body, not merely the arm.

RAPID FIRE



FIGURE 28.—Assuming the sitting position rapidly.

CADENCE EXERCISES

19-48. *CADENCE EXERCISES*.—One important consideration in rapid fire is proper timing. This is accomplished by timing or cadence exercises. Before beginning these exercises the instructor explains and demonstrates (a) the correct position (b) correct method of aiming and (c) how to strike the operating rod handle sharply, straight to the rear, to cock the rifle, and then releases his hand quickly to allow the operating rod handle to go forward (d) the correct trigger squeeze (e) explains what is meant by proper timing and (f) how the speed is increased with skill until 4 seconds per shot is attained.

Cadence exercises are conducted in all positions except standing in the following manner:

a. The pupil takes position and aims at the target.

b. The coach takes a position where he can observe the shooter's eye and trigger finger—also in such position to strike the operating rod handle sharply in order to cock the rifle.

c. Upon a prearranged signal, the coach strikes the operating rod handle, the pupil takes up the slack quickly and continues the pressure until the hammer falls. The instructor repeats the signal at 6-second intervals for one (1) minute with one (1) minute rest between exercises. After the pupils have mastered the 6-second time interval, five is conducted until finally the exercises are conducted with the instructor giving the signal "bolt" at 4-second intervals.



FIGURE 29.—Cadence exercises in the prone . . .

RAPID FIRE



FIGURE 30.— . . . and sitting positions.

19-49. *SECOND RAPID FIRE EXERCISES*.—After taking positions rapidly and the cadence drills have been mastered the pupils are given simulated firing on the firing line in the following manner. The instructor commands: 1. Lock 2. Eight rounds, simulate load 3. Ready on the right 4. Ready on the left. 5. Ready on the firing line. 6. TARGETS.

At the command "Ready on the Firing Line" the rifles are unlocked. At the command "Targets" all riflemen drop into position and simulate firing eight rounds with the coach beside them striking the bolt as in cadence exercises. Reloading is simulated and eight more rounds are squeezed off. The instructor keeps the group informed as to passage of time by announcing "First Shot", "Second Shot", etc., "Half-Time" and "Cease Firing." This is practiced for all positions until the students are proficient in this phase of rapid fire.

Note: 1. In sitting and kneeling rapid fire 60 seconds are allowed for firing sixteen (16) rounds. This allows 3 seconds per shot, 7 seconds for assuming the position and 5 seconds for reloading.

2. In prone rapid fire 65 seconds are allowed for firing 16 rounds. This allows 3 seconds per shot, 10 seconds for assuming the position and 7 seconds for reloading.

3. Although 3 seconds per round are allowed in actual firing, 4

RELOADING THE RIFLE

seconds per shot are allowed in dry firing to compensate for the manual operation of the operating rod by the coach.

4. In all cadence exercises a wooden block fitted into an M-1 clip will permit free movement of the bolt. The wooden block must be grooved at the top and bottom to permit free movement of the bolt.

19-50. *RELOADING THE RIFLE*.—In the prone and sitting positions the rifle is reloaded by holding the rifle firmly with the left hand, the toe of the butt being placed on the ground. In the kneeling position the butt should be placed on the thigh. It also may be put on the thigh in the sitting position if more easily and comfortably done by the shooter.

The clip is taken from the belt and placed in the receiver, using the thumb, with the fingers joined and pointed downward, pushing down the clip into the receiver until it engages the clip latch. The closing and locking of the bolt may often be aided by striking the operating rod handle sharply with the heel of the right hand.



FIGURE 31.—Reloading in sitting . . .

RAPID FIRE



FIGURE 32— . . . and prone positions.

19-51. *THIRD RAPID FIRE EXERCISE.*—This phase of rapid fire instruction includes the use of dummy cartridges and insures practice in reloading. The pupils are placed on the 200-yard firing line with the coaches. Sights are set at 200 yards and the commands by the instructor are the same as used in the actual firing of rapid fire. The use of continuously exposed targets requires the last command of the instructor prior to firing to be "TARGETS."

When the pupil receives the command "Lock" he locks his weapon.—"Load" he inserts first clip of dummy cartridges—"Ready on the Firing Line" he unlocks the safety—and when he receives the word "TARGETS" he assumes the position rapidly and squeezes off eight rounds with the coach operating the operating rod—reloads a second clip of dummy cartridges—squeezes off the second clip of eight rounds finishing the last round just as the instructor announces "Cease Firing."

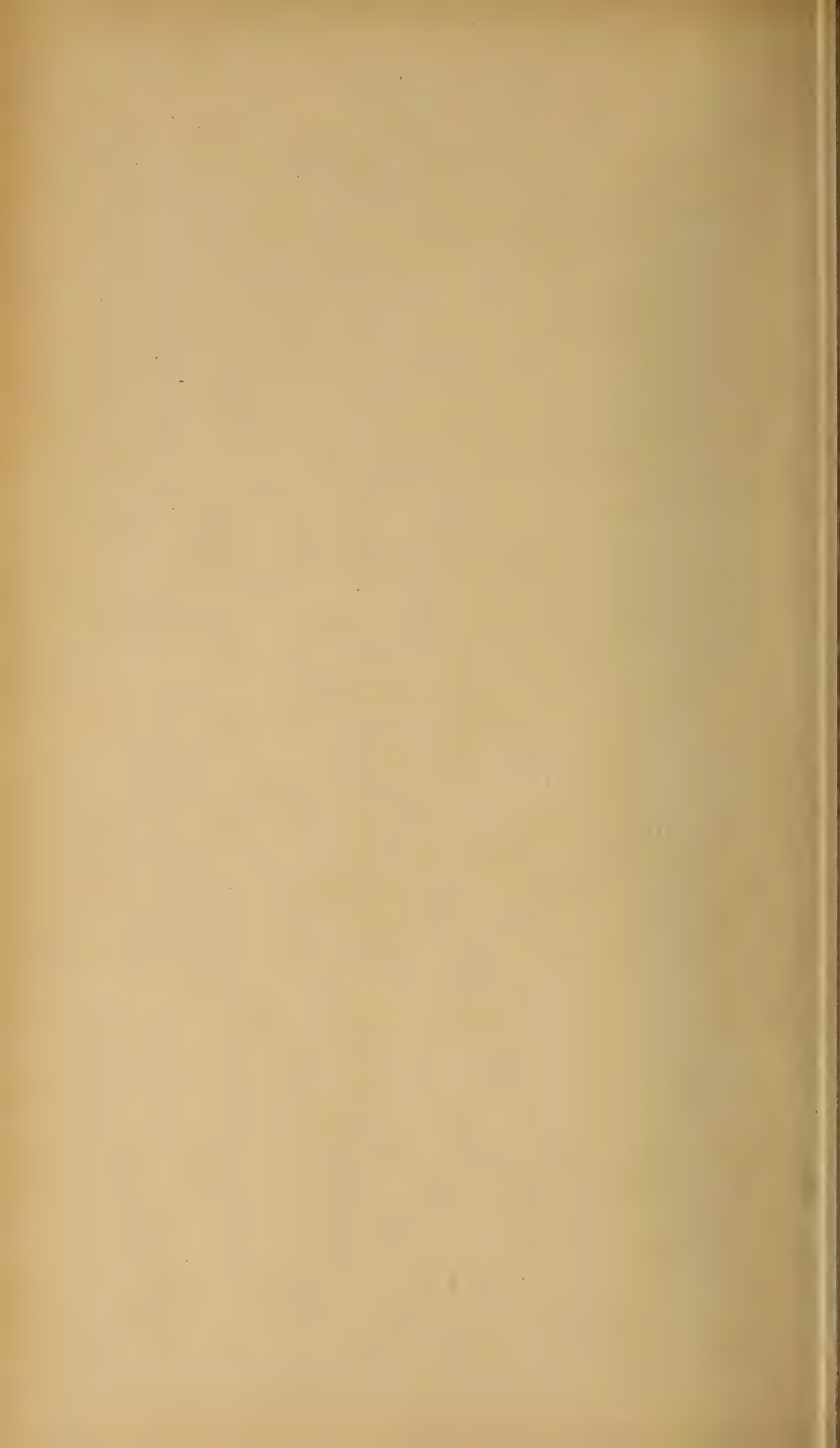
INSTRUCTION STEPS

19-52. *INSTRUCTION STEPS*.—The coaches should particularly note the following:

- (1) That the sling is properly adjusted.
- (2) That the correct position is assumed.
- (3) That the firer does not close his eye in firing.
- (4) That the second clip is properly loaded.

The instructor explains the sight adjustments and shows, by actually firing, how changing the sight moves the shot on the target. The instructor points out how the force and direction of the wind may be estimated, by:

- (1) The range flags.
- (2) Movement of grass and branches of trees.
- (3) The drift of smoke, or of grass or bits of paper thrown into the air.



SECTION VII

ELEVATION AND WINDAGE; SAFETY PRECAUTIONS;
EXAMINATION ON PREPARATORY EXERCISES

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19-53. *SCALES*.—(a) *Range*.—Range changes may be made by turning the elevating knob of the rear sight. The elevating knob has graduations of 200, 400, 600, 800, 1000 and 1200 yards of range. Index lines between these graduations indicate the odd hundreds of range, *i.e.*, 100, 300, 500, etc.

(b) *Windage*.—Adjustment for windage may be made by turning the windage knob. Each windage graduation represents an angular adjustment of four (4) minutes. Each “click” represents one minute of angle or one inch change on target for each 100 yards of range.

19-54. *ELEVATION RULE*.—The elevation rule states that “one click of the elevating knob moves the strike of the bullet one inch on the target for each 100 yards of range.”

19-55. *WIND-GAUGE RULE*.—“One click of the windage knob moves the strike of the bullet one inch on the target for each 100 yards of range.” Right windage moves the strike of the bullet to the right and left windage moves it to the left, as shown by the arrows and letters on the windage knob. At 300 yards one click moves the strike of the bullet 3 inches; at 500 yards, 5 inches.

19-56. *WIND CLOCK*.—The horizontal wind clock is used in describing the direction of the wind. Visualize the shooter standing in the center of a huge clock facing north. A wind from the south would be a 6 o'clock wind, from the west a 9 o'clock wind, etc. The velocity of the wind is described in miles per hour. Velocity may be determined by throwing up dry grass, paper, dust, etc., and watching how fast it travels. Range flags are often indicative. The velocity of wind can best be judged by experi-

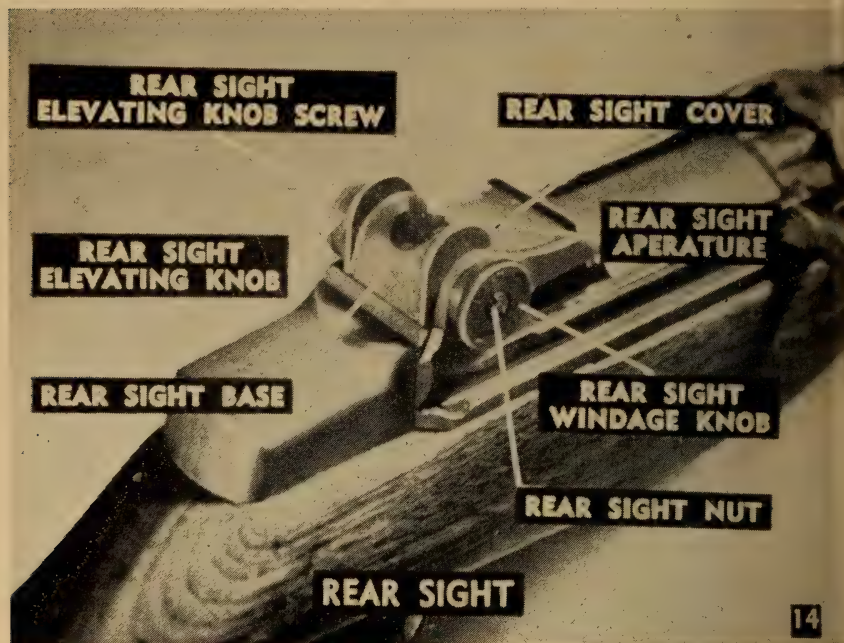
ELEVATION, WINDAGE; SAFETY PRECAUTION; EXAMINATION
PREPARATORY EXERCISES

FIGURE 33.—The rear sight.

enced shooters and when on the range it is best to ask than to guess. A light breeze is a 5-8 mile wind; a strong breeze 10-12 mile wind; a 20 mile an hour wind is described as strong.

19-57. **WIND CORRECTION.**—To make a correction after ascertaining the wind speed proceed with the following formula:

$$\frac{\text{Range (in hundreds)} \times \text{Wind Velocity}}{10} = \text{No. of Clicks}$$

EXAMPLE: at 300 yards, if 12 mile wind at 3 o'clock

$$\frac{3 \times 12}{10} = 3.6 \text{ or } 4 \text{ Clicks.}$$

Since the wind is coming from the right, the rear sight is moved to the right, *into the wind*, to counteract the force of the wind.

No changes in windage are necessary for 6 and 12 o'clock winds since these winds do not blow the bullet off its path.

19-58. **ZERO OF THE RIFLE.**—The zero of a rifle for each range is the point at which the rear sight must be placed for both

SAFETY PRECAUTIONS

elevation and windage in order to hit the center of the bull's-eye on a normal day with no wind.

This zero may not conform to the marks on the elevation or windage knobs. The rifle's zero may differ with each man that fires it, the result of different holding or aiming. The rifle is best zeroed on a calm day. After arriving at the zero of the rifle on any particular range (300 yards is best) proceed as follows:

a. Loosen the screw in the elevating knob and pull the elevating knob away from the receiver until the teeth are disengaged and then set the 300-yard mark on the knob exactly opposite the index line on the sight base.

b. Tighten the screw. Run the aperture all the way down *remembering the number of clicks*. This is the zero for 300 yards. Record it. To better tighten the screw, run the aperture all the way up and tighten. Then apply the zero for 300 yards on the rifle by using the knob setting and see it correspond to the number of clicks at which the bullet hit the center of the bull's-eye at 300 yards.

To set some other range, *i.e.*, 400 yards, use the knob graduations without any reference to the clicks—the shot should be in the center of the bull's-eye; however, if the shooter has to make 1 or 2 click changes, record it as "for 400 yards, 400 + 1."

19-59. **SAFETY PRECAUTIONS.**—Safety precautions should be explained to the men and should be frequently emphasized as the instruction progresses. The following precautions are the most important:

(1) Never point a rifle at anyone you do not intend to shoot, nor in a direction where accidental discharge may do harm.

(2) On leaving the firing line open the chamber and keep it open.

(3) Never leave a loaded rifle or one with cartridges in the magazine where it can be picked up by others.

(4) Immediately upon taking up a rifle make sure by personal examination that it is not loaded.

(5) On the firing line, if the rifle is loaded, keep it locked until you are ready to shoot, and do not turn around on the line with a loaded rifle in your hands.

19-60. **EXAMINATION ON PREPARATORY EXERCISES.** After the completion of the preparatory exercises and before

ELEVATION, WINDAGE; SAFE PRECAUTION; EXAMINATION
PREPARATORY EXERCISES

starting range instruction the men are given an examination along the following lines:

a. Sighting and aiming.—

Q. In aiming with the peep sight, where is the tip of the front sight?

A. In the center of peep.

Q. In aiming with the open sight, where is the tip of the front sight?

A. In the same place. The top of the circle is removed, so that the top of the front sight just comes even with the top of the rear sight bar.

Q. In aiming with either open or peep sight, where is the bottom of the bull's-eye?

A. Just touching the top of the front sight. The whole bull's-eye is in the upper half of the peep or above the bar of the open sight.

b. Positions.—

Q. How do you breathe while aiming?

A. Take a normal breath, let out a half of it, and hold the rest by closing the throat.

Q. When do you take up the slack of the trigger?

A. As soon as I am in position and while I am aligning the sights.

Q. Show me how you get into the sling. (Verified by the instructor.)

Q. Assume the prone position, the sitting position, the kneeling, and the standing position. (Verified by the instructor.)

c. Trigger squeeze.—

Q. How do you squeeze the trigger?

A. I squeeze the trigger with such a gradual increase of pressure that I do not know the exact instant that the rifle will go off.

Q. What do you know while squeezing the trigger?

A. I know that the sights are lined on the bull's-eye.

Q. What do you try to do just before squeezing the trigger?

A. I try to relax as much as possible.

Q. What do you try to see just as the rifle goes off?

A. I try to see just where the sights are pointing so that I can call the shot.

Q. How do you squeeze the trigger in rapid fire?

A. In the same way as in slow fire.

SAFETY PRECAUTIONS

Q. Do you have to hurry the trigger squeeze in rapid fire?

A. No.

d. Rapid fire.—

Q. Show me how you load the second clip in rapid fire; prone; kneeling; sitting. (Verified by the instructor.)

e. Sight setting.—

Q. When you move the rear sight, which way does it move the shot on the target?

A. In the same direction as the rear sight is moved.

Q. How much change on the target is caused by moving the wind gauge one point?

A. One inch for each hundred yards of range.

Q. How much change on the target is caused by moving the sight 100 yards in elevation?

A. One inch for each 100 yards of range.

Q. I place this spotter here on this target. The range is 500 yards. Your sights are now set for 500 yards and zero wind. Change your sights to move the shot to the center. (Verified by the instructor.)

Q. What is a 5 o'clock wind?

A. A wind 15° on my starboard quarter when I am facing the target.

Q. What effect does a 5 o'clock wind have?

A. It blows the bullet to the left half the distance that the same strength wind from 3 o'clock would blow it.

f. Care.—

Q. How do you clean the rifle?

A. I first swab the bore with rags saturated with hot soapy water or bore cleaner; I then dry the bore with dry rags; I oil the bore with a light film of oil to prevent rust.

g. Safety precautions.—

Q. How do you know that the rifle is unloaded?

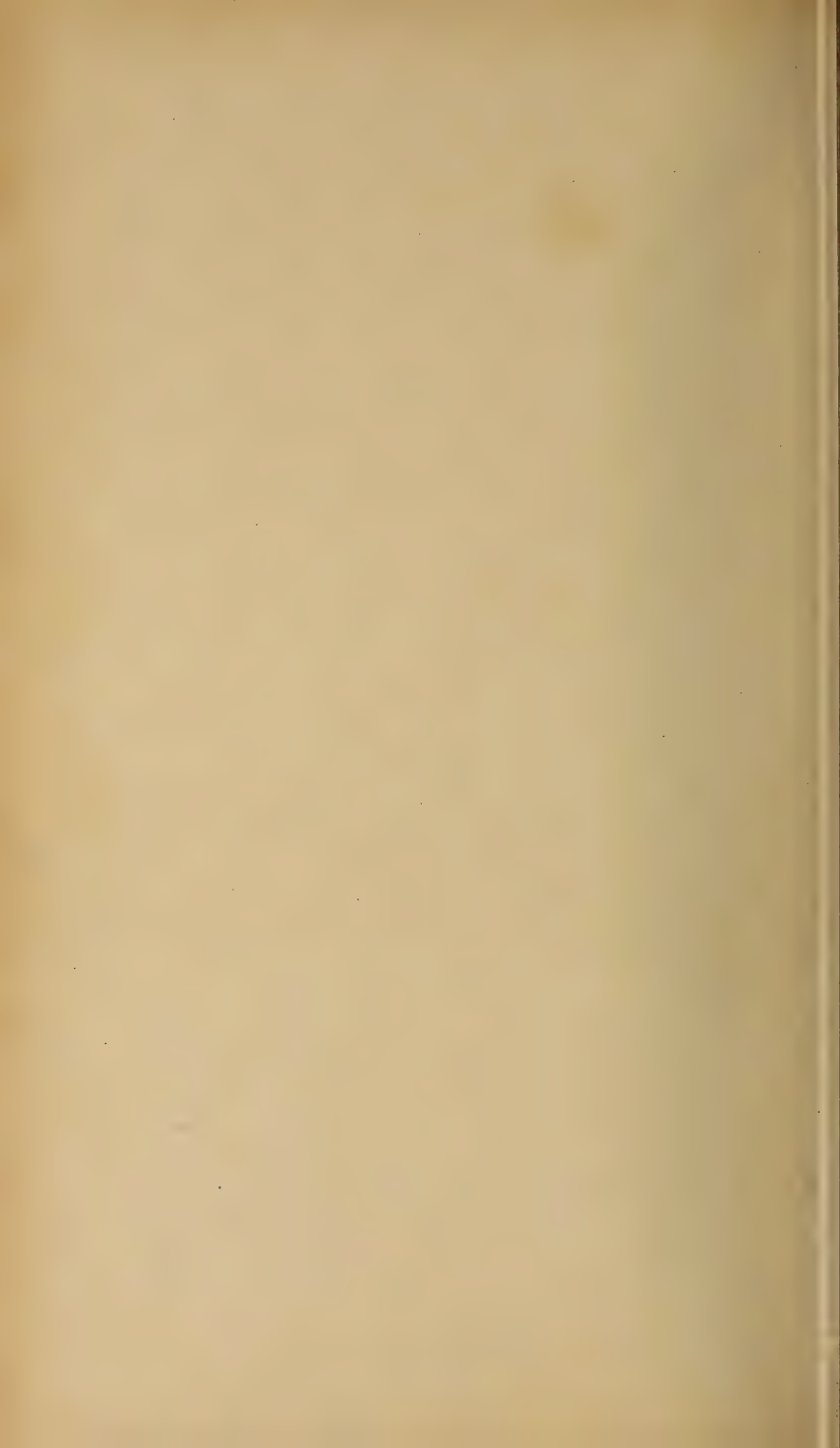
A. I look in the chamber and in the magazine as soon as I pick it up.

Q. How do you carry the rifle when not on the firing line?

A. In the unlocked position.

Q. At what things do you point the rifle?

A. I point the rifle only at those things that I want to shoot.



SECTION VIII

COURSES

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19-61. *THOSE WHO FIRE.*—In paragraph 19-6 are listed the officers and men to whom small arms training should be given. Officers and men who have previously qualified as expert riflemen are not required to fire the rifle marksman's course. With this exception, officers and men who satisfactorily complete the prescribed course of preparatory exercises will fire appropriate courses as prescribed herein.

19-62. *COURSES TO BE FIRED.*—*a. Instruction practice.*—The instruction and marksman courses are intended to serve as guides in the range instruction. The amount of instruction practice in each position and at each range may be varied at the discretion of the officer in charge of the instruction, provided the ammunition allowances are not exceeded.

b. Record practice.—Record firing will be conducted in accordance with the rules prescribed in Section 19-72. Once the record firing of any course is commenced it will be fired to completion. The record firing of any one course must be completed the same day.

COURSES

COURSE K.—.22-CALIBER RIFLE

Range	Time limit	Shots	Target	Position	Sling
50 feet	No limit	4	SB-A-2	Standing	Hasty.
Do	do	4	SB-A-2	Sitting	Loop or hasty.
Do	do	4	SB-A-2	Kneeling	do.
Do	do	8	SB-A-2	Prone	Loop.
Do	40 sec.—8 shots	16	SB-D-2	Sitting from standing	Loop or hasty.
Do	do	16	SB-D-2	Kneeling from standing	do.
Do	45 sec.—8 shots	16	SB-D-2	Prone from standing	Loop.

Total shots, each firing..... 68
 Total shots, two firings..... 136

NOTE: 1. This course is the record .30-caliber Course "B" in miniature.

COURSE L.—.22-CALIBER PISTOL

Range	Kind of fire	Time limit	Position	Target	Shots
50 feet	Slow—4 strings of 5	None	Standing	B-2	20
Do	Time—4 strings of 5	20 seconds for 5 shots	do	B-3	20

Total shots..... 40
 Maximum score..... 400
 Qualifying score..... 220

COURSE A.—RIFLE MARKSMAN

Range	Time limit	Shots	Target	Position	Sling
200 yards	None	4	A	Standing	Hasty
DO	do	4	A	Sitting	Loop or hasty.
DO	do	4	A	Kneeling	do.
DO	do	8	A	Prone	Loop.
DO	30 seconds	8	D	Sitting from standing	Loop or hasty.
DO	35 seconds	8	D	Prone from standing	Loop.

Total shots record firing..... 36
 Maximum score..... 180
 Qualifying score (no medal awarded)..... 130

NOTE: 1. This course may be fired once for practice and the second time for record. It is only intended as a preliminary course prior to firing the Expert Course (Course B).

COURSES

COURSE B.—RIFLE EXPERT

Range	Time limit	Shots	Target	Position	Sling
200 yards	None	4	A	Standing	Hasty.
Do.	do	4	A	Sitting	Loop or hasty.
Do.	do	4	A	Kneeling	do.
Do.	60 seconds	16	D	Sitting from standing	do.
Do.	do	16	D	Kneeling from standing	do.
300 yards	65 seconds	16	D	Prone from standing	Loop.
500 yards	None	8	B	Prone	Loop.

Total shots record firing	68
Maximum score	340
Expert (medal awarded)	306
Sharpshooter	292
Marksman	268

NOTE: 1. In the rapid-fire stages the firer is required to remain standing, with the rifle at the "Ready" until the targets appear.

CARBINE—INSTRUCTION PRACTICE

Range, yards	Time limit	Shots	Target	Position
100	None	10	A	Prone.
200	do	10	B	Do.

CARBINE—INSTRUCTION PRACTICE

Range, yards	Time limit	Shots	Target	Position
100	None	5	A	Sitting.
100	do	5	A	Kneeling.
100	do	5	A	Standing.
200	do	5	B	Prone.
200	do	5	B	Sitting.
200	do	5	B	Kneeling.
200	do	5	B	Standing.

COURSE C.—CARBINE RECORD PRACTICE

Range yards	Time sec.	Shots	Target	Position
100	40	8 (2 mags., 4 each)	A	Fire 4 rounds standing; reload, take sitting position and fire 4 rounds.
100	40	do	A	Fire 4 rounds standing; reload, take kneeling position and fire 4 rounds.
200	40	do	B	Fire 4 rounds standing; reload, take sitting position and fire 4 rounds.
200	40	do	B	Fire 4 rounds standing; reload, take kneeling position and fire 4 rounds.
200	40	do	B	Standing to prone, fire 4 rounds, reload, fire 4 more rounds.

The above is fired once for preliminary record practice.	170
Total shots, instruction practices	40
Total shots, record practice	200
Maximum score for record	
Qualifying score,	180
Expert (medal awarded)	165
Sharpshooter	140
Marksman	

NOTE: 1. The sling is not used for firing.

COURSES

COURSE D.—PISTOL MARKSMAN (.45 caliber automatic)

Range	Type of fire	Time limit	Target	Shots
25 yards.....	Slow.....	None.....	25-yard standard American	10
25 yards.....	Timed.....	20 seconds 5 shots.....	do.....	10
15 yards.....	Rapid.....	11 seconds 5 shots.....	do.....	10
				30

Possible score..... 300
 Qualifying score..... 165

COURSE E.—PISTOL EXPERT (.45 caliber automatic)

Range	Type of fire	Time limit	Target	Position	Shots
25 yards.....	Slow.....	None.....	25-yard standard American	Standing	10
25 yards.....	Timed.....	20 seconds 5 shots.....	25-yard standard American	do.....	10
15 yards.....	Rapid.....	11 seconds 5 shots.....	25-yard standard American	do.....	10
25 yards.....	Rapid.....	15 seconds 5 shots.....	25-yard standard American	do.....	10
					40

Possible score..... 400
 Expert (medal awarded)..... 300
 Sharpshooter..... 280
 Marksman..... 220

COURSE F.—REVOLVER EXPERT (.38 caliber revolver)

Range	Type of fire	Time limit	Target	Position	Shots
25 yards.....	Slow.....	None.....	25-yard standard American	Standing	12
25 yards.....	Timed.....	25 seconds 6 shots.....	25-yard standard American	do.....	12
15 yards.....	Rapid.....	15 seconds 6 shots.....	25-yard standard American	do.....	12
25 yards.....	Rapid.....	20 seconds 6 shots.....	25-yard standard American	do.....	12
					48

Possible score..... 480
 Expert (medal awarded)..... 360
 Sharpshooter..... 336
 Marksman..... 264

NOTE: 1. To fire a marksman course with .38-caliber revolver fire the above Course D, using 6 shot strings and correct time limit.

2. If the expert pistol shot medal has been awarded for expert qualification with .45-caliber pistol no additional medal will be awarded for expert qualification in Course F above.

SUBMACHINE GUN COURSE

19-63. *SUBMACHINE GUN COURSE*.—The following course should be fired twice for instruction and once for record.

COURSE G.—SUBMACHINE GUN

Range (yards)	Kind of fire	Time limit	Target	Position	Shots
200-----	Slow-----	None-----	B	Prone-----	10
100-----	Semiautomatic	25 seconds---	* 3 A	Standing to sitting	10
25-----	Automatic-----	10 seconds---	** 3 A	Standing; gun at hip until commence firing-----	15

* Three targets, rifle, A, 10 feet apart. No hit outside the 4 ring is scored. Fire should be distributed; deduct 10 points for any target not hit inside the 4 ring. In applying penalty, no score shall be less than zero at any one range.

** Three targets, rifle, A, 5 feet apart. Same scoring and penalties as above.

Total shots, instruction practice-----	70
Total shots, record practice-----	35
Maximum score, record practice-----	175
Qualifying score-----	100

19-64. *GROUND MACHINE GUN AND AUTOMATIC RIFLE COURSES*.—Instruction practice is not specified but should be conducted, within the ammunition allowances, at the discretion of the officer in charge of the practice.

COURSE H.—GROUND MACHINE GUN
[Record Practice]

Range	Kind of fire	Time limit	Target	Shots
200-----	Bursts of 3 to 5	None-----	B	10
200-----	do-----	35 seconds---	B	20
200-----	do-----	20 seconds---	B	20
500-----	do-----	None-----	B	10
500-----	do-----	40 seconds---	B	20
500-----	do-----	20 seconds---	B	20

Total shots-----	100
Maximum score-----	500
Qualifying score-----	260

COURSE I.—AUTOMATIC RIFLE
[Record Practice]

Range	Kind of fire	Time limit	Position	Target	Shots
200-----	Single shots-----	None-----	Prone with sandbag rest.	B	10.
200-----	Semiautomatic-----	20 seconds---	Prone-----	B	10.
200-----	do-----	25 seconds for 10 shots.	Sitting-----	B	3 strings of 10 shots each.
500-----	Single shots-----	None-----	Prone-----	B	10
500-----	Semiautomatic-----	1 minute, 20 sec- onds.	Prone-----	B	40

Total shots-----	100
Maximum score-----	500
Qualifying score-----	300

COURSES

19-65. *BOAT MACHINE GUN COURSE.*—This course is designed as an instruction practice for gunners of machine guns mounted in landing craft. It is appropriate for both caliber .30 and caliber .50 machine guns. Proper distribution of fire during the approach to the beach is the most important feature of the course.

The course should be preceded by mechanical training and instruction in the manipulation of the gun, and by at least one firing of Course H ashore for familiarization.

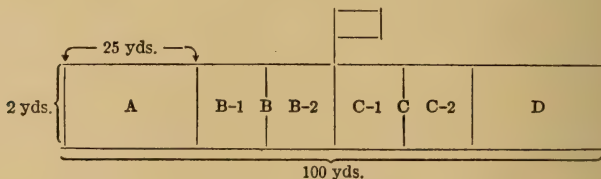
No record practice or qualifying score is prescribed pending the receipt of sufficient reports, comments, or recommendations upon which to base an analysis.

COURSE J.—BOAT MACHINE GUN

Range	Type of fire	Target	Time	Shots
1,000-800-----	Bursts of automatic-----	A-B-C-D distributed---	30 seconds	50
800-600-----	do-----	do-----	30 seconds	50
600-400-----	do-----	do-----	30 seconds	50
400-200-----	do-----	B-C-----	30 seconds	50
200 to beach-----	do-----	D distributed-----	20 seconds	50

Target.—The target will consist of a strip of target cloth 100 yards long by 2 yards high set up parallel to the beach and supported by vertical stakes, guyed where necessary in order to present a flat surface without wrinkles.

The target will be subdivided into sections as shown in diagram by vertical black strips 2 inches wide.



Two D targets will be set up from 100 to 200 yards to one flank and, if practicable, hooded from view from the approaching boats until they reach a point 200 yards offshore.

Firing.—When a red flag is hoisted by the officer on the beach in charge of scoring, the boat will start the run at least 1,100 yards from the beach and will maintain a steady course at a speed of 6 knots, guiding on two range flags, one set in the center of

BOAT MACHINE GUN COURSE

the target and the other a sufficient distance in rear (or front) of the target to assure steering a straight course. Only one man will fire during each run but a non-firing gun may be set up in the alternate cockpit for a dummy run for the next man to fire. It is desirable that the course be buoyed or otherwise marked at even 200-yard intervals from the beach to designate the range for beginning each stage. The officer controlling the firing will be in the boat and will give the command to load prior to each stage and will signal "commence firing" and "cease firing" by whistle. This officer will also be responsible for the observance of all necessary safety precautions. No more than 50 rounds may be fired at any stage and ammunition unexpended at the expiration of the time limit for each stage will not be fired on any succeeding stage.

Scoring.—In order to facilitate scoring, bullets fired in the first three stages will be painted a different color for each stage. Bullets fired in the last two stages will be unpainted. Each stage will be scored separately according to the following formula:

Stages 1, 2, and 3.—10 points for each space (A, B, C, and D) hit plus 2 points for each hit.

Stage 4.—10 points for each space (B-1, B-2, C-1, and C-2) hit plus 2 points for each hit in these spaces. Hits on spaces A and D do not count.

SECTION IX

RANGE PROCEDURE

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19-66. *NATURE OF RANGE FIRING.*—Range firing follows immediately upon the completion of the preparatory exercises. Unless the training during the period of the preparatory exercises has been thorough, range firing will do more harm than good. Without careful preparation and supervision, instinctive bad shooting habits will be strengthened and progress rendered extremely difficult. The instruction during range firing is progressive, starting with the shortest ranges and the most steady positions. Firing is continued under the least difficult conditions until the men under instruction are capable of making good groups under those conditions. Especial care is required at this first stage of the range firing in order to overcome the natural tendency to flinch when squeezing the trigger. When the men under instruction are capable of making good groups under one set of conditions they are advanced to the next in the order of difficulty. Men who show a tendency to flinch should be returned to firing under the least difficult conditions until this tendency has been corrected. Once the habit of flinching has been definitely overcome, progress will be rapid and qualification assured.

19-67. *ORGANIZATION FOR RANGE INSTRUCTION.*—*a.* Range instruction shall not be commenced until thorough instruction in the preparatory exercises has been completed. Range instruction should, however, follow immediately after completion of

RANGE PROCEDURE

the preparatory exercises and should immediately precede the record practice.

b. During range instruction the men to be trained are divided into relays. The number in each relay is determined by dividing the total number of men by the number of targets available. From four to six relays can be readily handled during the range instruction. Eight relays can be handled with difficulty and more than eight relays cannot be handled satisfactorily. Employment of the various relays is prescribed in paragraph 19-70. Details for the various relays, special details, courses to be fired, etc., should be prepared before arrival at the firing line. The pit detail should be started out ahead of time and should be well supplied with paste, pasters, spotters, extra target centers, stop watches, pit record sheets, and pencils. The telephones should be tested well ahead of time. Men going to the pit should carry filled canteens. The relay designated as scorers is provided with record sheets, pencils, blackboards, and chalk. The target assignment should be made in sufficient time to allow firing to start promptly at the designated time. Rifles are assigned to men by number and a record kept of the number and of the men to whom assigned. The elevations and zero used in firing at the various ranges are also kept on this record.

19-68. *RANGE OFFICER*.—At all ranges a range officer will be appointed who will be charged with the care and police of the range, the necessary repairs to targets, shelters, pits, and firing points, the supervision of permanent details, the condition of the telephone service and the supply of all materials such as disks, spotters, targets, pasters, paste, etc., necessary to the conduct of the fire. He will not be responsible for the details of the instruction of firing parties which use the range but will have general supervision of the firing. He will maintain order, regulate the distribution of targets and ranges to firing parties; prevent infractions of the regulations; take necessary precautions for the protection of firers, scorers, markers, spectators, and passers-by; and in general assist by every proper means to secure efficient and accurate service from the working of the range. Where necessary he will post guards to prevent persons or animals crossing the range, provide means of signaling from the guards to the pits in case it becomes necessary to cease firing and see the necessary danger signals flown as a warning to individuals that firing is in progress.

PERMANENT DETAILS

19-69. *PERMANENT DETAILS*.—Such officers, chief petty officers, and enlisted personnel should be detailed permanently to the range, at least for the practice season, as the commanding officer sees fit. These details should be organized under the range officer in such a way as will best serve the purpose in hand. An officer or chief petty officer should be in general charge of each pit. It will be his duty to see that targets are ready for firing; that they are serviceable; that target details are provided as soon as they report, with proper flags, disks, paste, pasters, spotters, etc.; that order is maintained in the pits and that the pit details perform their duties properly. A permanent telephone detail is essential.

19-70. *TEMPORARY DETAILS*.—Commanding officers concerned will furnish such temporary details as are necessary to expedite the firing. Upon receiving the target assignment from the range officer, the officer in charge of the firing party will divide his detachment into relays. Two relays go to the pits, one relay does the scoring, and remaining relays successively go on the firing line. One relay may be employed as coaches on the firing line in the absence of a sufficient number of regular coaches. When one or more relays have fired, details are rotated until all have fired. This system serves to keep the targets and men fully occupied. Officers who are firing may be grouped or distributed at the discretion of the officer in charge of the firing party. The relays will be organized with a leading man in charge of each to march them to and from the pits and supervise their work in the pits.

19-71. *RESPONSIBILITY OF OFFICERS*.—Officers in charge of firing parties are responsible for the equipment of their units with the necessary arms, ammunition, field glasses, etc.; for the organization, administration, discipline, and instruction of their units; and for carrying out the safety precautions. They should report to the range officer upon arrival at the range, obtain the target assignments from him, and deal with him in all matters pertaining to his province as range officer.

19-72. *GENERAL RULES*.—The following general rules will be enforced:

(1) No sighting shots will be allowed in record firing. Instruction shots fired by an officer or coach will be permitted in instruction practice only.

(2) In slow fire if the target is withdrawn from the firing

RANGE PROCEDURE

position just as the shot is fired, the shot will not be considered and another will be fired.

(3) All shots fired by the firer after he has taken his place on the point, the target being fully exposed, will be counted even though the discharge may have been accidental.

(4) Shots fired on the wrong target will be entered upon the score of the firer as misses.

(5) When a target has more than the authorized number of hits in rapid or timed fire, the target will not be marked. The man firing on that target will be given an opportunity to refire, except when all hits have the same value, in which case the target will be marked and he will be given that value for each shot fired by him.

(6) In all record firing, except team matches, men will fire singly and not in pairs.

(7) The value of a shot will be indicated to the firing point as follows: A five, with a white disk; a four, with a red disk; a three, with a black and white disk; a two, with a black disk; a miss by waving the danger flag across the target; a ricochet hit, by displaying the disk and danger flag at the same time. Ricochet hits shall be scored as misses.

(8) A shot hole, the leaded edge of which comes in contact with a scoring ring, is given the higher value.

(9) In slow fire if two shots strike the target at about the same time, the firer will be awarded the shot of highest value.

(10) In all rifle record firing, a commissioned or warrant officer will be detailed as chief pit officer. A pit record of scores will be kept under his supervision. The score will also be kept at the firing point, but in any case where score at firing line is questioned, the pit score will govern. In pistol record firing pits are not mandatory, but when used the same rules as above will apply.

(11) In record firing additional pit officers or, at least, chief petty officers will be assigned at the rate of one for every four targets. They will carefully supervise the scoring and keeping of the pit record. The pit record does not show the man's name, but it does show the date, the number of the target, and the order of the firing (relay). The record at the firing point will show the date, the man's name, the number of the target, and the order of the relay.

(12) In record practice officers and men in the pit should not know who is firing on any particular target. This may be easily

PERMANENT DETAILS

accomplished without confusion as follows: Make up the assignments of targets, relays, and firers in advance. Assign the pit detail for duty for the full day or half day. When the targets are ready for firing announce a "key number" to be added by each man to the number of the target to which he is assigned. Have the firers shift to the new number resulting from adding the key number to the original assignment. Thus, assume 10 targets are available and the key number is announced as 3. No. 1 shifts to No. 4 and No. 10 to No. 3. The firing then begins.

(13) In all slow firing spotters will be used. They will not be used in record rapid fire or timed fire. The disks will be placed over the center of the shot holes to indicate the value and location of the hits.

(14) When the pit score shows that a man has completed his record score the target will be placed at half mast as a signal to the firing point. It will not be again run up until the order is received from the firing point to commence a new string.

(15) In record practice an officer in the pits will verify every miss before it is signaled and will closely observe the marking of his targets to prevent errors or fraud on the part of markers.

(16) In slow fire the hits will be spotted and marked after each shot. In rapid fire and timed fire the hits will be disked at the end of each string, marking the highest values first.

(17) As each shot is signaled from the pits, it is announced by the scorer at the firing line. For example, a score of 16 shots is announced as follows as each shot is marked: Target 22—1 five, 2 fives, 3 fives, 4 fives, 5 fives, 6 fives, 7 fives, 1 four, 2 fours, 3 fours, 4 fours, 5 fours, 6 fours, 1 two, 2 twos, 1 miss.

(18) In scoring pistol fire the name of the firer will not be used, but instead the number of the target will be announced. This is to avoid men in the pits knowing the name of the competitor.

(19) If at rapid fire a man fails to fire at all, he will be given another opportunity. If he fires any shots, his score will stand. If the rifle or pistol becomes disabled through no fault of his own, he will be given another chance to fire, but the breaking of the clip in loading will not entitle him to another chance. If there is a misfire with the rifle in slow fire or in a string of rapid fire, another attempt to fire shall be made. If it fails to fire on this second attempt another shot shall be given at slow fire or another string at rapid fire. If a misfire occurs with a pistol another shot

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at slow fire or another string of rapid or timed fire shall be allowed without further attempt to fire the defective round.

(20) When stationary targets are used for pistol firing, the officer in charge of the firing line shall himself closely examine the targets on record firing and ascertain the scores made, if another officer is not assigned to perform these duties. If the officer in charge of the firing line fires for record, his performance must be observed and score marked by another officer.

19-73. *PROCEDURE IN THE PITS FOR RAPID AND TIMED FIRE.*—In this class of fire the time is regulated in the pits by the chief pit officer. The targets being ready, they are fully withdrawn and the danger flag is displayed at the center target. When word is received from the firing line, **“ready on the firing line”**, the flag is waved and lowered. Five seconds thereafter the targets are run up simultaneously, being fully exposed for the time allotted that range. The chief pit officer gives the commands, **“stand by, up—stand by, down”**, to make certain that the movement of the targets is simultaneous. When the targets are down they are examined, the pit record entered, and the targets run up and marked. They are then pulled down, the shot holes pasted, and the target made ready for further firing.

19-74. *PROCEDURE ON THE FIRING LINE FOR RAPID AND TIMED FIRE.*—As soon as a set of targets is marked the officer in charge on the firing line commands, **“blank relay on the line—load, and lock”**: When the **“ready in the pits”** signal appears, the commands, **“ready on the right—ready on the left”** are given. If any man is not ready he reports. When all are ready the command, **“ready on the firing line”** is given and is transmitted by telephone to the pits. At the command, **“ready on the firing line”** pieces are unlocked and the position of **ready** assumed. As soon as the targets start up the firer takes the prescribed position, except at 500 yards, in which case he is already in position, and fires or attempts to fire the prescribed number of shots. As soon as the targets are withdrawn the officer in charge commands: **Unload.** All unfired cartridges are removed from the piece and the bolts or slides are left open. Men remain in position on the firing line until they are ordered off by the officer in charge.

19-75. *TELEPHONES.*—One telephone to a group of from 10 to 15 targets is sufficient. In general, overhead wiring is more satisfactory, since trouble can be located and corrected better than with the underground system. Messages to the pits should

RECORD FIRING

be brief and explicit. If a target is to be pulled and marked, say "Mark No." If it is to be pulled and reexamined, having been pulled once, say "Reexamine No." When a hit is to be disked or disked a second time without pulling the target, say "Disk" or "Redisk No." Irritating messages to the pits only result in poorer service. If a certain target gives consistently bad service, the proper procedure is to call the one in charge of the pits to the telephone and report the circumstances.

19-76. *RECORD FIRING*.—Record firing will take place in accordance with the rules laid down in this section. * **An officer or man may fire any particular course for qualification but once in one small-arms year**, unless he fails to qualify as marksman or better in that course. In that event one additional record firing may be permitted, provided his ammunition allowance is not exceeded. An officer or man who qualifies on the authorized firing of the marksman's course is given an opportunity to fire the expert's course for qualification and medal. Once a record firing is commenced it must be completed the same day. An uncompleted record firing will be counted as the authorized record firing unless the firer is incapacitated by illness. The object of record practice is twofold: first, to afford a measure of the proficiency of the individual; and, second, to afford an opportunity to qualify for medals. All men must fire under the same rules, and precautions must be taken to avoid unfairness.

19-77. *SCORING*.—Scores should be marked on a scoreboard behind each firing point, in plain view of everyone. No score should be erased until it is necessary to do so. Before erasure, the total for each range and class of fire will be recorded by the officer in charge of the firing line on a rough copy of Small-Arms Sheet 2. As soon as the pit records are available, he compares them with firing line records, investigates and adjusts discrepancies, and announces the standing and qualifications. This announcement should be made immediately after the close of the firing and before the men have left the range. When he has recorded the results from the blackboards, he indicates this fact by drawing a line through the recorded portion. The record of shots, except the total for that stage, may then be erased. The record of the scores for the small-arms year shall be retained by commanding officers, subject to call from the Navy Department, until

* NOTE: Example—If a man fires Course B and qualifies as marksman with a score of 270, he cannot fire again for record until the next small-arms year.

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the close of the following small-arms year. See Section XIV for detailed instructions relative to manner of keeping the records.

19-78. *AMMUNITION*.—The ammunition allowance is limited. This fact makes it all the more necessary that the preliminary training be carried out with the utmost thoroughness. Sighting shots have been eliminated because they are unnecessary if proper use is made of the information gained in practice firing. The ammunition used for practice firing, record firing, and unless otherwise authorized for competitions will be the regular ammunition issued to the ship and designated for such use by the Bureau of Ordnance. As there are a number of lots and makes of ammunition issued for target practice, care should be taken to see that each man fires for record with the same kind and lot of ammunition that he used in practice. In competitions the element of fairness can only be preserved by requiring all competitors to use the same kind and lot of ammunition. In their annual report of small-arms firing, ships are required to state the average number of rounds per man used in the preparation for and the firing of each qualification course. Attention is called to the fact that there is a definite relation between the thoroughness of preliminary instruction and the average number of rounds required for qualification.

The standard training allowances of ammunition for marksmanship are as follows:

	<i>Rounds</i>
Course A—Rifle marksman and Course B—Rifle expert.....	400
Course C—Carbine.....	210
Course D or E—Pistol.....	200
Course F—Revolver.....	240
Course G—Submachine gun.....	105
Course H—Ground machine gun (300 ball, 100 tracer)	400
Course I—Automatic rifle or semiautomatic rifle.....	300
Course J—Boat machine gun (400 ball, 100 tracer)	500
Course K—Caliber .22 rifle.....	150
Course L—Caliber .22 pistol.....	60

NOTE.—Current letters of instruction must be consulted for actual amounts authorized to be expended. Competitions are not included in the above.

A report of the expenditure of ammunition under each of the above headings shall be included in the annual report. Marine detachments firing the Marine Corps courses shall observe the requirements of current Marine Corps orders as regards ammunition allowances.

SECTION X

CARE AND CLEANING M1 RIFLE

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19-79. *CARE AND CLEANING.*—The pupil will be taught to clean the rifle properly and be required to clean his weapon daily during the range period under the supervision of the instructor.

Materials.—No abrasives will be used to clean the rifle. The following are the only materials necessary to clean, lubricate, and preserve the rifle:

- Patches
- Soap
- Water
- Cleaner, rifle bore
- Oil, lubricating, preservative, light
- Grade II, thin film preservative
- Solvent, dry cleaning
- Oil, linseed
- Oil, neats-foot
- Grease, rifle
- Various decontaminating agents
- Cleaning rods

19-80. *CLEANING BEFORE FIRING.*—Break down the rifle into main groups and

(a) Clean the bore and chamber—**do not** oil the chamber.

(b) Remove any carbon on piston head and gas cylinder lock screw.

(c) Clean remainder of weapon and apply a light preservative oil lightly on all metal parts which **do not** come in contact with the ammunition.

(d) Apply a thin coat of light oil to the following parts:

1. Bolt lugs
2. Bolt guides

CARE AND CLEANING M1 RIFLE

3. Cocking cam on bolt
4. Contact surface of barrel and operating rod
5. Operating rod guide groove on side of receiver
6. Operating rod spring
7. Cammed surface in hump of operating rod

19-81. *CLEANING AFTER FIRING.*—Cleaning after firing will be performed after range firing for that day. Under no circumstances will they be left to the following day. If the rifle is not to be fired for a while cleaning will be repeated for three successive days.

Hold the rifle with sights down so no rifle bore cleaner enters the gas port. Run several patches into the muzzle end saturated with rifle bore cleaner. Use hot soapy water if bore cleaner is not available. Remove slotted tip from cleaning rod and substitute wire brush. Run the rod through the length of bore several times. Remove the brush and replace slotted tip. Run several more patches saturated with bore cleaner or hot soapy water removing patches from breech end. Begin using dry patches and continue until patches come out dry and clean. Examine bore; if not clean repeat above process. If clean, apply a light film of preservative oil in the bore by using a saturated patch, turning the rifle so that some oil **will enter** the gas port.

If the rifle is to be fired the following day, repeat the process outlined in "Cleaning Before Firing."

If the rifle is not to be fired during the next few days, a complete cleaning of the weapon is undertaken in the following manner:

1. *Chamber.*—

Remove primer salts in the chamber by using either bore cleaner or hot soapy water. The patch is inserted in the chamber cleaning tool and rolled completely around the tool. Insert the patch covered tool in the chamber and revolve slowly several times. Dry the chamber as described above, using successive dry patches. Inspect the chamber visually and by testing with little finger, if no evidence of primer salts, apply a light coat of light preservative oil. **Remove this oil before firing.**

2. Gas cylinder and gas cylinder lock screw (plug)—

Remove carbon from these parts with wire brush or screwdriver blade of combination tool.

a. *Spline Type.*—To remove carbon from gas cylinder, remove the lock screw and scrape out carbon with screwdriver blade of combination tool. The gas cylinder lock may be removed and the

ON RANGE OR DURING OPERATIONS

lock screw reinserted in the gas cylinder and threaded in enough to loosen carbon. At conclusion of firing, the inside of gas cylinder should be cleaned and oiled.

b. Screw-on-type.—After firing, scrape the carbon from the exposed surface of front of gas cylinder, gas cylinder plug, and piston head. Clean the gas cylinder plug and the grooves in the gas cylinder to insure correct seating of plug. A sharp-bladed instrument should be used to remove carbon from gas cylinder plug and piston head.

c. Both types.—If firing to continue next day, tip the muzzle down, place a few drops of light preservative oil into the gas cylinder and manipulate the operating rod a few times. Wipe clean the exterior of the gas cylinder, operating rod, and front sight, then oil lightly.

If no firing is contemplated in next few weeks, remove operating rod and the gas cylinder lock screw, leaving the cylinder open at both ends. Clean the cylinder with a rod and patches similar to cleaning the bore. Hold the rifle so that no water will enter gas port. Do not remove the gas cylinder for cleaning. Clean the piston head and operating rod with cleaner or water. Dry thoroughly. Oil the operating rod and cylinder before reassembling. Carbon may be removed at this time. Care should be taken that the corners of the screw (or plug) or piston head are not rounded.

3. Exterior Surfaces.—Wipe off exterior of rifle to remove dampness, dirt and perspiration. Wipe all metal parts with light preservative oil. Oil the stock and hand guards with raw linseed oil, and oil the sling with neats-foot oil.

4. The face of the bolt should first be cleaned with a wet patch. It should be dried and given a coat of light preservative oil.

19-82. ON RANGE OR DURING OPERATIONS.—The following points should be watched carefully:

a. Clean bore.—Never fire a rifle with dust, dirt, mud or snow in the bore.

b. Clean chamber.—Keep the chamber free from oil and dirt.

c. Obstructions.—Never leave a patch, plug, or other obstruction in the chamber or bore.

d. Excessive friction.—If the rifle shows signs of excessive friction due to lack of lubrication, apply additional oil to the parts listed in paragraph 19-80. Friction can be ascertained if cases are

CARE AND CLEANING M1 RIFLE

ejected to the right rear or if action of the bolt is sluggish. Oil applied is the remedy.

e. Use of rifle grease.—If the rifle is exposed to severe conditions of rain or **sea water spray**, the bolt may fail to open. Under these conditions it is essential that such surfaces be coated with a rifle grease. In such cases the following is prescribed:

- (1) Apply oil to parts listed in paragraph 19-80.
- (2) Dismount three main groups and with a clean dry cloth wipe the following parts clean and cover lightly with rifle grease:
 - (a) Cammed surface in the hump of operating rod
 - (b) Under lip of the receiver above the bolt
 - (c) Locking recesses in the receiver.
 - (d) Bolt camming lug on the face of the hammer
 No rifle grease applied to any other parts.
- (3) Assemble rifle and work bolt to spread grease.

f. Keep a thin coating of light preservative oil on all metal parts.

g. Remove carbon from gas cylinder lock screw and piston head when necessary.

h. Generally it will not be necessary to remove any parts of the rifle except the trigger housing group and gas cylinder lock screw. However, if very dirty, the rifle should be disassembled into its three main groups for necessary cleaning and lubrication.

19-83. PREPARING RIFLES FOR STORAGE.—

Light preservative oil is suitable for short periods of rifle stowage from two to six weeks. Inspections weekly should be made to renew oil if necessary. For longer periods of stowage, light rust preventative should be used.

Preliminary to stowage, all rifles are thoroughly cleaned and dried completely. All metal parts should then be coated with either light preservative oil (for short stowage period) or Grade II, thin film preservative (over 6 weeks' stowage). Application of the thin film preservative to the bore of the rifle is best done by dipping the cleaning brush into the compound and then running it through the bore several times. The brush must be clean before it is used. Before placing the rifle in the packing chest, see that the bolt is in its forward position and that the hammer is released. Then, handling the rifle by the stock and hand guards only, it should be placed in the packing chest—the wooden supports having previously been coated with rust preventative compound.

CLEANING WEAPONS RECEIVED FROM STORAGE

Do not place a rifle in stowage inside a cloth, with cloth, or with a plug in the bore. Such practice causes rust.

19-84. *CLEANING WEAPONS RECEIVED FROM STORAGE.*—

a. Clean off preservative completely with dry cleaning solvent. After thoroughly removing all preservative, dry all parts with a cloth.

19-85. *CLEANING RACKS.*—Cleaning racks should always be provided near the firing points. These may readily be improvised from boxes or such lumber as may be available. A simple yet effective one can be made up by cutting to a convenient length 2 x 4 or 2 x 6 and laying them on edge. They should then be notched at intervals great enough to give room for cleaning and deep enough to take the rifle. They are then laid parallel to one another at such a distance apart that when the trigger guard of the rifle is just inside the near one the forward edge of the upper band is just inside the far one. They should be secured in this position by ties across the ends, and raised above the ground on corner posts so that the rear notches are at about the height of a man's waist and the forward ones somewhat lower. If the rack is rigidly secured and the rifle is properly placed in the notches, no motion of the rifle will result when the rod is being worked back and forth in the bore.

Well behind the firing line should be located racks and tables for cleaning with patches, hot soapy water, oil, rods, grease, etc., immediately available. The presence of an armorer with an armorer's kit and a spare parts box insures minor repairs to weapons.

SECTION XI

THE PISTOL

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19-86. REQUIREMENTS FOR ACCURATE PISTOL SHOOTING.—*a.* Accurate pistol shooting requires that:

(1) The pistol be properly grasped by the hand.
 (2) The sights be properly aligned with each other and with the bull's-eye.

(3) The pistol be so held that the sight alignment is maintained while the trigger is squeezed.

(4) The trigger be squeezed in such a manner as not to cause a derangement of the aim.

b. The preparatory exercises in pistol shooting take up the above requirements in order. Additional exercises are then given in timed and rapid fire. Instruction in safety precautions, nomenclature, care and preservation are given during the course of the preparatory exercises, at the discretion of the officer in charge of the instruction, but prior to the examination or the range firing.

THE PISTOL

19-87. *METHODS OF PISTOL INSTRUCTION*.—The methods of instruction follow closely the methods prescribed for the rifle instruction in preceding chapters. The men to be instructed are divided into groups of convenient size and a group instructor appointed for each group. The men of each group work together in pairs, one man going through the exercises as the firer while the other man acts as coach. At frequent intervals the members of the pairs are required to exchange places so that they alternate as firer and coach. Each period of the instruction begins with an explanation and a demonstration of the work for the period. The men then proceed with the prescribed exercises under the supervision of the instructors.

19-88. *NOMENCLATURE*.—Only such instruction in nomenclature as is necessary to enable the men to follow instructions need be given. No special period need be devoted to this subject, it can be taught simultaneously with field stripping when cleaning. The instructor, from time to time, points out and names such parts as are necessary for a complete understanding of the work at hand. For details of nomenclature and functioning see FM 23-35.

19-89. *GRASPING THE PISTOL*.—The hand is as high up on the stock as it will go. The barrel is in the prolongation of the arm. The thumb, including the submerged joint, is entirely to the left of the pistol. The thumb is straight and is parallel or above the bore of the pistol. This position of the hand feels somewhat awkward at first, and new men must be watched to see that they do not place the thumb across the rear of the stock. The pressure of the hand on the stock is firm but not hard. The correct pressure is best illustrated by the instructor grasping the hand of the men under instruction. The handclasp should be about that used in greeting a friend. Too great a pressure causes a tremor of the muscles and tires the firer unnecessarily. Too light a pressure allows the pistol when fired to change its position in the hand and causes a loss of time in firing a second accurately aimed shot.

19-90. *INSTRUCTION IN GRASPING PISTOL*.—The instructor explains the correct method of grasping the pistol and demonstrates it. The firers are then required to take up the pistols and to fit them into their right hands, in the correct manner. The firer's left hand should be used to assist in settling the

INSTRUCTION IN GRASPING PISTOL

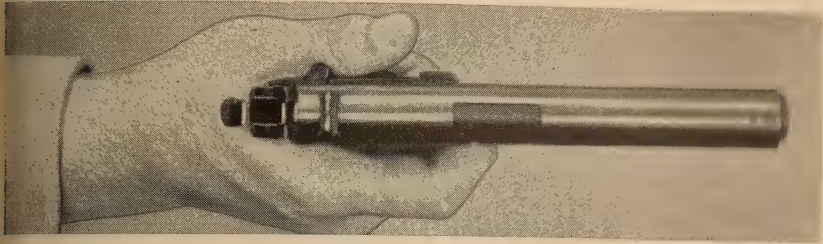


FIGURE 34.—Pistol—correct grasp, top view. Note space between right forefinger and receiver.

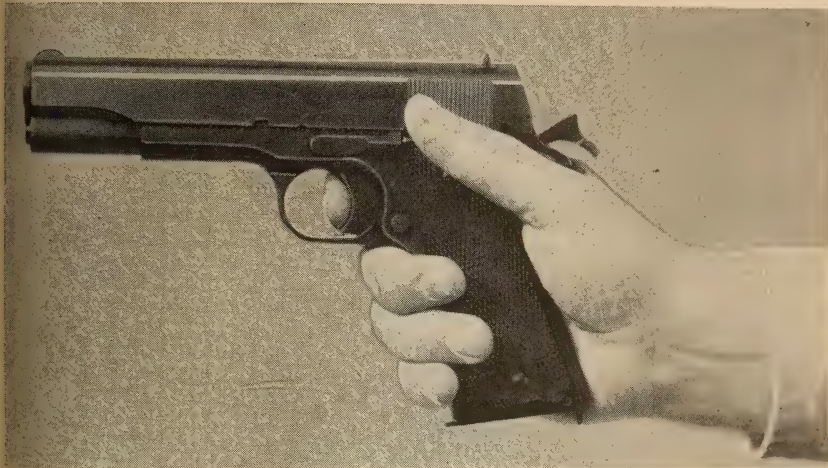


FIGURE 35.—Pistol—correct grasp, left side view. Note position of thumb.

pistol well back into the fork of the hand. As soon as the firer's grasp is seen to be correct, he is required to lay the pistol down, and to again place it properly in his hand. This practice is continued until each firer is familiar with the correct method of grasping the pistol. The coach and firer of each pair then exchange places. This alternation is continued.

THE PISTOL



FIGURE 36.—Revolver—correct grasp, left side view. Note position of thumb.

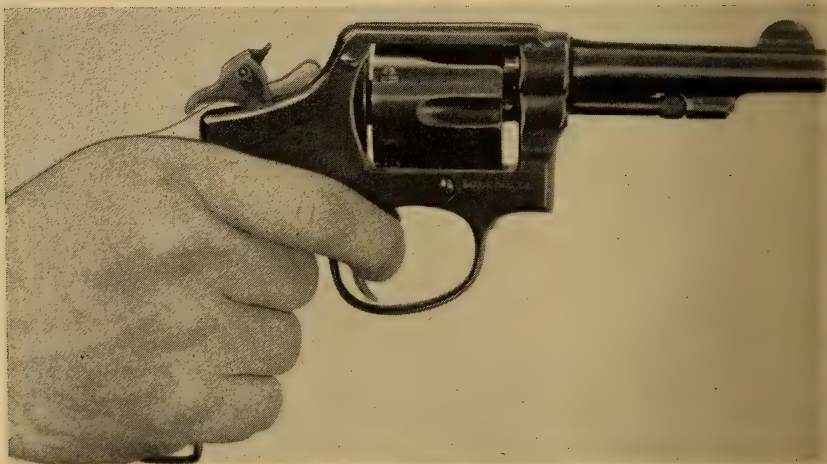


FIGURE 37.—Revolver—correct grasp, right side view.

SIGHTING AND AIMING

19-91. *SIGHTING AND AIMING*.—The instructor starts by explaining the correct alignment of the sights and demonstrates the correct alignment by means of diagrams, using the open sight. The correct alignment of the open sight is illustrated in Figure 39. During the explanations and demonstrations of following periods, the instructor should emphasize the necessity for the correct aim and should illustrate it by means of a diagram.

19-92. *POSITION OF THE BODY*.—The firer faces nearly at right angles to the line of fire. The feet are placed about 15 inches apart. The weight is equally distributed on both legs. The hips are slightly forward and muscles of the diaphragm relaxed. No effort is made to hold in the abdomen. The right arm is fully extended, and the right shoulder slightly raised. The head

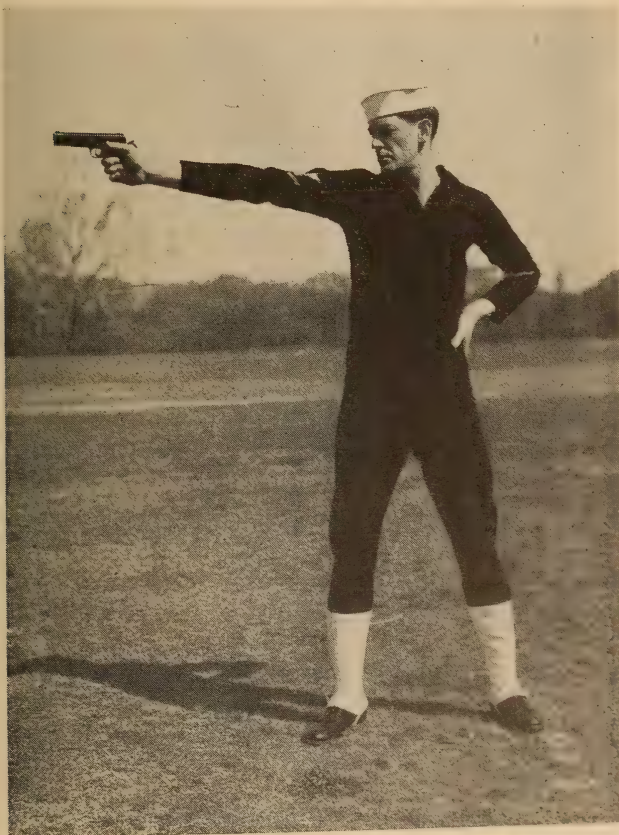


FIGURE 38.—Position of the body.

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is turned so as to see the target through the sights. The ease with which the head can be turned to see the sights determines how far the body is faced to the left. There should be no strain on the neck muscles. The head is balanced on the neck in upright position. The whole position with the exception of the right arm is one which can be maintained with the least muscular effort. The body is balanced rather than held in position. The muscles of the right shoulder and arm are necessarily somewhat tightened in order to sustain the weight of the pistol and to maintain the correct pressure of the hand. Excess tightening of the muscles should, however, be avoided. Whatever tension there is on the muscles of the right arm and hand should be maintained, even after the hammer falls. This will be found to assist in getting off a second shot quickly. The left hand may be placed at the waist or may hang naturally at the side.

19-93. *INSTRUCTION IN POSITION.*—The instructor explains the positions of the various parts of the firer's body and illustrates this by himself assuming the position. The men are then required to take the position and are coached until their positions are correct. As soon as the position is correct the firer is required to lay down the pistol, and then to repeat the taking of the position.

19-94. *CORRECT METHOD OF BREATHING.*—*a.* When firing slow fire the following procedure is followed for each shot.

(1) When in position and the sights approximately aligned on the bull's-eye take a normal breath.

(2) Hold this breath by closing the throat, and without effort of the muscles of the diaphragm.

b. In rapid fire, the breath is held as above but all shots of the string are fired on one breath.

c. In timed fire the first three shots are fired on one breath. After the third shot a second, shorter, breath is taken and held as in (*a*) above.

19-95. *TRIGGER SQUEEZE.*—*a. Importance.*—**This is the most important part of the process of pistol shooting.**

The pressure on the trigger is applied straight back in a line parallel to the bore, and is applied gradually, without jerks. The fact that the pressure is a gradually increasing one does not mean that the increases are applied slowly, but that they are applied smoothly, and in such a manner that the firer will not know the

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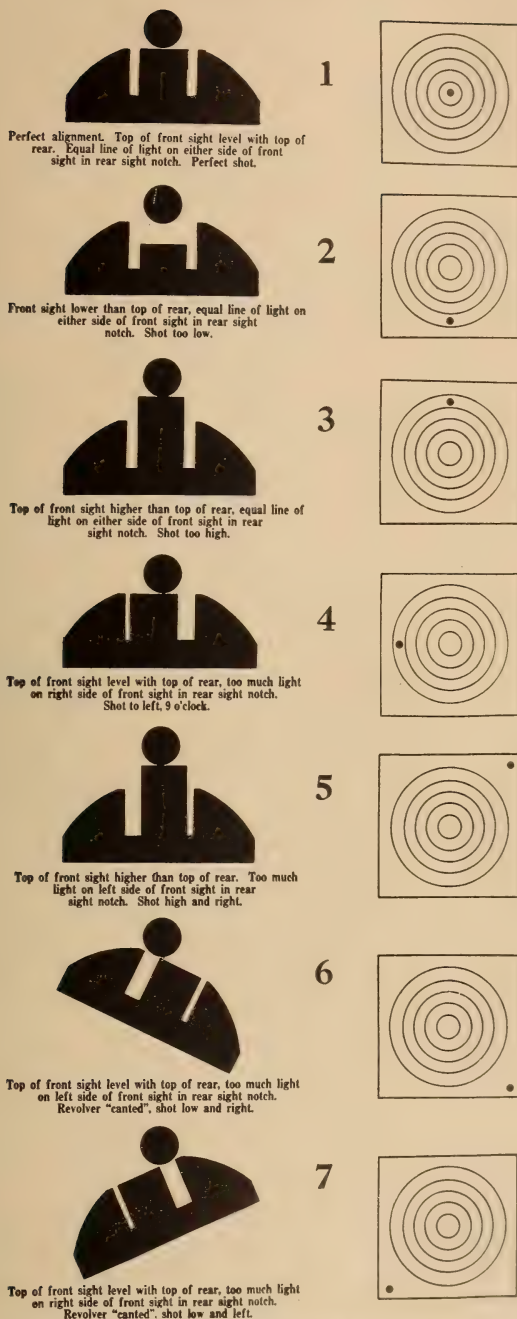


FIGURE 39.—*Effect of correct and incorrect alignments of the sights, pistol and revolver.*

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exact instant that the pistol will fire. During the squeezing of the trigger there should be little if any increase in the pressure applied by the last three fingers of the hand grasping the pistol. The thumb, which is extended along the frame, is pressed firmly against the side of the frame. The sidewise pressure of the thumb may be slightly increased (or decreased) during the squeeze to counteract any observed tendency of the sights to move out of alignment.

19-96. *FIRST INSTRUCTION IN TRIGGER SQUEEZE.*—

The instructor explains the correct trigger squeeze and demonstrates it by himself going through the exercise. He then illustrates the method of applying the pressure on the trigger by grasping the left hands of the men under instruction. The first three fingers of the man's hand are grasped as if they were the stock of the pistol. The instructor's forefinger is placed outside of the man's fourth finger which represents the trigger. The instructor's thumb presses against the palm of the man's hand. The instructor now simulates the squeezing of the trigger. Care should be used to see that the correct, firm grip is obtained first, and that then after a definite pause the trigger pressure is applied.

19-97. *SECOND INSTRUCTION IN TRIGGER SQUEEZE.*—

The instructor takes the firing position with the pistol properly grasped and, aiming at the sky or other blank background, squeezes the trigger while keeping the sights aligned with each other. The firers and coaches are each provided with pistols and alternate with each other in this procedure. The firer looks only at his sights, which should be outlined against the sky or other blank background. The firer endeavors to squeeze the trigger in such a manner that there is no disturbance of the sights when the hammer falls. The coach watches the firer's eye to see if it closes before the hammer clicks. No limit is placed on the time required to squeeze the trigger. The firer and coach alternate after each shot, and the exercise is continued until each has simulated 20 shots.

19-98. *THIRD INSTRUCTION IN TRIGGER SQUEEZE.*—A

number of aiming targets are provided. These targets must be large enough so that there is little difficulty in holding on them. The instructor now explains to the men under instruction that they are to keep their sights in line with each other while the trigger is being squeezed but are not to try to keep on the bull's-

FOURTH INSTRUCTION IN TRIGGER SQUEEZE

eye. The object of the practice is to be able to call the shot after the hammer has fallen. The instructor then demonstrates the method of grasping the pistol, taking the firing position, aiming, and squeezing the trigger. The firers take up the pistols, obtain the proper grasp, assume the position and aim at the target. While the sights are being aligned, a light firm pressure is applied on the trigger. The firer now gives his attention to squeezing the trigger with a gradually increasing pressure. While squeezing the trigger, the firer disregards the unsteadiness of his hand, and continues increasing the pressure so long as the two sights are properly aligned with each other. The pressure on the trigger being gradually applied, the firer does not know the exact instant the hammer will fall. When it does fall, the firer notes the point on the target at which the sights are aligned and calls the position of the shot. No effort is made to keep the sights pointed at the bull's-eye. The firer merely notes the point, on which the sights are aligned, so that he may be able to call the shot. During the trial, the coach notes the firer's grasp, position, and particularly his method of squeezing the trigger.

19-99. *FOURTH INSTRUCTION IN TRIGGER SQUEEZE.*—

The same aiming targets are provided as in paragraph 19-98. The instructor explains that in this exercise the object is to squeeze the trigger while the sights are aligned on some part of the bull's-eye. The usual demonstration is given by the instructor and the exercise begins. The firer now gives his attention to squeezing the trigger and continues to gradually increase the pressure on the trigger so long as the sights are aligned on any part of the bull's-eye. Small vibrations of the sights are disregarded. When the sights move off of the bull's eye, the pressure on the trigger is held. When the sights again come on, the pressure is again increased.

19-100. *TIMED FIRE.*—In timed fire with the pistol, the firer proceeds as in slow fire until the first shot is fired. The tension of the muscles of the arm and hand is maintained during the recoil, and the flexing of the elbow and wrist resisted thereby. The whole arm moves up with the recoil, with some unavoidable bending of the wrist. As soon as possible after the shot, the firer releases the trigger, starts bringing the sights on the bull's-eye by the shortest route, and again starts to apply pressure on the trigger. By the time the sights are again aligned there should be considerable pressure on the trigger. Exactness of the aim

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should not be required in the early exercises. Emphasis is placed on the correct trigger squeeze. The two sights must, however, be properly aligned with each other and the firer must be able to call the shots.

19-101. *INSTRUCTION IN TIMED FIRE*.—Each man is provided with a piece of strong cord four feet long. One end of this cord is tied to the hammer of the pistol and the other end is held in the left hand. The instructor explains the exercise and demonstrates the use of the cord. The aiming position is assumed and the trigger squeezed as for the first shot. The instructor now gives a strong jerk on the cord with the left hand. This recocks the pistol and disturbs the aim, in somewhat the same manner as does the recoil. The instructor now brings the sights on for the next shot and continues the procedure until five shots have been simulated. The firers take up the pistols and carry out the exercise. The alternation of firer and coach should take place after two strings of 5 shots each. No time limit is placed on the firing of any one string. Men who have difficulty in getting the shots off quickly should, at first, be permitted to complete a trial with less than 5 shots.

19-102. *RAPID FIRE*.—This is essentially the same as timed fire. The method of firing is the same. Men should not be advanced to the practice of rapid fire until they have acquired considerable facility in timed fire. As in timed fire the emphasis is placed on the correct trigger squeeze and the sight alignment. Exactness of alignment on the bull's-eye should not at first be required. In rapid fire, the breath is held throughout the firing of the 5-shot string. The tension of the muscles of right arm and hand is maintained throughout the string. As soon as one shot is fired the trigger is released and the squeeze for the next shot begun while the aim is being perfected. By the time the sights are on the bull's-eye there should be almost enough pressure on the trigger to fire the pistol.

19-103. *INSTRUCTION IN RAPID FIRE*.—The instruction in rapid fire is similar to that for timed fire. The only differences being the increased rate of fire and the fact that all shots of a string are fired on one breath. Rapid-fire instruction follows naturally after timed-fire instruction. The instructor must avoid trying to advance the men too quickly to the rapid-fire stage. Considerable harm may be done by requiring the men to take up the rapid-fire exercises before they acquire facility in timed fire.

INSTRUCTION IN RAPID FIRE



FIGURE 40.—Cocking the revolver in rapid or timed fire. Side method.



FIGURE 41.—Cocking the revolver in rapid or timed fire. Straight back method.

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19-104. *CARE AND PRESERVATION*.—The pistol should be dismounted after firing and all parts thoroughly cleaned. The bore is cleaned with hot soapy water or powder solvent, thoroughly dried, and given a light coat of oil. All working surfaces are coated with light oil and the pistol reassembled. Men should be instructed in the proper way to disassemble and assemble the pistol, but need not be required to learn the names of all the various parts. In order to guard against possible eye injuries, men will be instructed always to exercise special care to keep the pistol pointed away from themselves and all other persons when removing or replacing the recoil spring and plug. For details of care and preservation see FM 23-35.

19-105. *SAFETY PRECAUTIONS*.—*a*. A long list of safety precautions should be avoided. The few precautions ordered should, however, be rigidly enforced. The following precautions are sufficient:

(1) On taking up a pistol examine it to see if it is loaded. To do this, first remove the magazine then draw back the slide.

(2) Never lay down a loaded pistol. Always remove magazine and lock slide open.

(3) Never turn around on the firing line until the pistol has been unloaded and the slide locked open.

(4) On the range keep the slide open until on the firing line and ready to shoot.

(5) In cleaning a jam, always remove the magazine first.

(6) Never point the pistol at anything unless you want to shoot it.

b. When the pistol is carried on ordinary occasions, as at drill, it will be carried in the holster completely unloaded (with empty magazine and empty chamber). When the nature of the duty requires a moderate degree of readiness for action the pistol may be ordered carried unloaded but with filled magazine (hammer lowered on an empty chamber and then a filled magazine inserted.) On emergency duty requiring a high degree of readiness, it may be carried fully loaded (chamber loaded, hammer back, safety lock engaged, and six rounds in magazine). When carried fully loaded a tendency for the safety lock to become disengaged during withdrawal may be anticipated. This tendency may be reduced by rotating the stock of the pistol away from the leg during the operation of withdrawal.

19-106. *EXAMINATION*.—The examination of the men under

INSTRUCTION STEPS, PISTOL COURSE

instruction with the pistol is to a considerable extent a visual inspection by the instructor. The instructor assures himself, by observing the men, that they grasp the pistol properly and that they assume the proper position. The men are required to simulate the firing of the various stages. During this simulated fire the instructor particularly notes the firer's eye and the motion of the pistol as the hammer falls. In the oral examination the men are required to explain:

- (1) The correct method of breathing.
- (2) The correct method of aiming and aligning the sights.
- (3) How to care for the pistol.
- (4) The safety precautions.

19-107. *INSTRUCTION STEPS, PISTOL COURSE.*—*a. First instruction.*—The organization and methods are the same as for the range instruction for the rifle. Pistols are assigned to men by number and a record kept of the aiming points used at the different ranges. The instructor first repeats the safety precautions. The instructor then explains and demonstrates how to blacken the sights and the firing of slow fire. The instructor sees that all men have cotton for their ears and use it. The men are instructed to concentrate on the trigger squeeze and to keep their sights in line. No attempt is made to keep the shots in the center of the target. The first relay blackens the sights and fires 10 shots. The coach stands on the left of the firer and loads the magazine used by the firer. The coach introduces occasional dummies into the magazine without the firer knowing the order in which they are loaded.

b. Second instruction.—The instructor explains that the object of the exercise is to practice the trigger squeeze and not to make a high score. The first relay is instructed to fire 10 shots slow fire at 25 yards. They are instructed to concentrate on the trigger squeeze and not to try for a good score. So long as they can call the shots accurately the object of the practice is accomplished. The coach takes position on the left of the firer and loads the magazines. The coach introduces an occasional dummy cartridge into the magazine.

c. Third instruction.—The first relay fires 10 shots slow fire at 25 yards.

d. Fourth instruction.—The instructor explains and demonstrates the firing of timed fire. The first relay is instructed not to try for too great accuracy at first, but to keep the sights lined

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with each other and to concentrate on the trigger squeeze. The coach is on the left. The first relay fires two strings.

e. Fifth instruction.—The instructor explains and demonstrates the firing at rapid fire. The first relay makes several dummy runs with an increased time allowance. The first relay fires two strings with an increased time allowance. The firers are told to concentrate on the trigger squeeze and not to try for too great accuracy at first.

SECTION XII

MISCELLANEOUS WEAPONS

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19-108. *SCOPE*.—These instructions cover only the methods of aiming, the positions and the firing at fixed targets. Prior to receiving the instruction herein prescribed, the men under instruction shall be trained in the methods of:

(1) Stripping, assembling, and, in the case of machine guns, head-space adjustment.

(2) Care, cleaning, and points to be observed before and after firing.

(3) Immediate action.

(4) Functioning.

(5) Stoppages.

(6) The preparatory exercises for the service rifle.

19-109. *SIGHTING AND AIMING*.—*a*. With the machine gun the correct method of aiming is the same as that described for the rifle. (See par. 19-27.)

b. With the automatic rifle the sights are aligned with each other in the same manner as that described for the rifle (19-28). Since the automatic rifle is not provided with a wind gage, it will usually be necessary to hold to one side of the point that it is desired to hit. The tip of the front sight should, however, always be kept in the center of the peep.

19-110. *POSITIONS*.—*a*. *Machine gun*.—The sitting position will be used in firing the machine gun course of these instructions. The gunner takes position directly behind the piece. The sitting position used is similar to the sitting position for firing the rifle (par. 19-39). The gunner's elbows are braced against the inner sides of the legs. The gunner's left hand rests lightly on the top of the grip and the right hand grasps the stock lightly with the

MISCELLANEOUS WEAPONS

forefinger on the trigger. The pressure exerted by the hands on the stock is only that necessary to press the trigger properly. The weight of the arms must be supported by the legs and not by the gun or mount. The gunner does not attempt to prevent the vibration of the gun when firing.

b. Automatic rifle.—Only two positions are prescribed:

(1) *Prone position.*—This position is the same as the prone position with the rifle (par. 19-38) except that, due to the shorter stock of the automatic rifle, the firer lies at a lesser angle to the line of fire. The sling is used as with the rifle.

(2) *Sitting position.*—This position and the use of the sling is the same as that used with the rifle (par. 19-39).

19-111. *INSTRUCTION IN POSITIONS.*—The instructor explains and demonstrates each position. The firers are required to assume the position repeatedly, each being coached by the other member of his pair. After several trials the coach and firer exchange places.

19-112. *SIGHT SETTING INSTRUCTION.*—The instructor explains the use of the sight and demonstrates the various settings. The firers are each required to make several settings of the sights as directed by the instructor. The coaches and firers then alternate for the next settings.

19-113. *EFFECT OF SIGHT CHANGES.*—*a. Machine gun.*—For all practical purposes the effects of sight changes on the machine gun are the same as similar changes on the sights of the rifle.

b. Automatic rifle.—The effects of sight changes in elevation are the same for the automatic rifle as for the rifle. The effect of the wind on the bullet is the same as for the rifle; but since there is no wind gage, the automatic rifle must be aimed to one side in order to correct for the effect of the wind.

SECTION XIII

COMPETITION RULES; TROPHIES, MEDALS AND QUALIFICATIONS

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19-114. *COMPETITION RULES.*—The following rules are applicable to all competitions in which all competing teams are from the U. S. Navy. The conduct of the range during competitions shall be as prescribed in Section 19-72 except as modified by the rules for the competition.

a. The chief range officer of the competition is charged with the conduct of the competitions. On questions of procedure or interpretation of the rules of the decision of the chief range officer is final, except that a written protest corroborating an oral one made during the match will be considered by the officer ordering the match after the range officer has commented on such protest. The chief range officer of the competition for the force or fleet matches will be designated by the force or fleet commander. For intership or interdivision competitions where teams from two or more ships compete, the senior commanding officer of the ships competing will designate the chief range officer. For interdivision competitions where all teams are from the same ship, the commanding officer of the ship will designate the chief range officer.

COMPETITION RULES; TROPHIES, MEDALS, AND QUALIFICATIONS

b. In special competitions arranged by mutual agreement with teams outside the U. S. Navy, variations from the rules herein prescribed are permitted, but these variations should be reduced to writing before the competition and each team furnished with a copy of the changes agreed upon. None of the trophies, awards, or prize money allowed under these rules will be awarded as a result of such special competitions.

c. In all competitions the commanding officer of the organization from which the team is selected will certify as to the eligibility of the team members.

d. In all team competitions coaching is permitted. Any member of the team may act as coach on the firing line. Coaching from behind the firing line will not be permitted. The coach may be changed at the discretion of the team captain but must be withdrawn from the line while the change is being effected. Coaches and members on the firing line will occupy their normal positions and will not so dispose themselves as to shield the firer from the effects of the wind, light, or weather. In addition to the team coach, each pair that is firing may have not more than one coach on the line with them.

e. In all rifle team competitions the competitors on each team fire slow fire in pairs, the members of the pair firing alternately and the man on the right firing first.

f. In all pistol competitions the competitors fire singly or may fire slow fire in pairs as above.

g. In all competitions the markers and officials in the pits shall be kept in ignorance of the identity of the competitor or the team firing at any particular target.

h. In rifle competitions the use of pads or gloves to protect the firer will be permitted, but only when such pads or gloves do not afford an artificial support.

i. In rifle competitions the competitors are allowed the use of a micrometer or vernier for setting the sights, the use of a telescope or binocular, and the use of a scorebook.

j. In all competitions the competitors are permitted to blacken the sights, but the use of special sunshades on the sights is prohibited.

k. In pistol competitions the competitor is allowed the use of adhesive tape or other protection on the hand, or the use of a glove, provided that the protective device does not afford any artificial support.

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l. In all competition the time allowed for slow fire shall be at the rate of one minute per shot plus three minutes for each change of pairs or competitors on the firing line. The time allowed for a team is the total time computed as above. In team competition the times of the individual shots or the times for the individual competitors need not be recorded. It is only necessary that the whole team complete its firing within the total allowed time.

m. Additional time may be allowed for slow target service or for interruptions. Claim for additional time must be made to the range officer as soon as the interruption occurs or in sufficient time for the range officer to personally note the condition for which the claim is made. Claims made only at the expiration of the time allowance will not be allowed.

n. Shots fired after the expiration of the time allowance will be recorded but will be "ringed" and will not be recorded on the official score card unless the additional time allowance is granted.

o. Scores shall be recorded both in the pit and on the firing line. If score at firing line is questioned, the pit score will govern. On the firing line, scores shall be recorded on a scoreboard as soon as the values of the shots are signaled. The record shall be visible to the competitors. The team captain shall initial the official score card after the scores are entered.

p. Competitors must call attention to any errors of scoring as they occur. The value of any shot signaled or recorded on the board may be challenged, provided that no subsequent shot is fired at the target before the challenge is made. If a subsequent shot has been fired the challenge will not be allowed.

q. The service rifle, service pistol, and service ammunition as shown in Fig. 1 and Fig. 7 and Fig. 12 shall be used in all U. S. Navy competitions. No rifles, pistols, or ammunition especially selected for accuracy at the place of manufacture will be permitted to be used. In special competitions variations to this rule are permitted as prescribed in paragraph (b).

r. Trigger pulls will be tested on the firing line and must be not less than three (3) pounds for the rifle and four (4) pounds for the pistol. Revolver trigger pull to be no less than two and one-half ($2\frac{1}{2}$) pounds.

s. The officer ordering the match will designate the ammunition to be used in the match. This designation should be made at least 10 days prior to the date set for the match in order that all teams

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may have an opportunity to sight in with the ammunition designated.

t. The ammunition used in the match will be served out to competitors on the firing line. Any competitor having other ammunition in his possession on the firing line will be disqualified, and his score will not be counted.

u. In rifle competitions standard positions only may be used. These are defined as follows:

(1) *Standing*.—Firer stands erect on both feet, rifle supported by hands and shoulder of the firer, without body or artificial rest. Both elbows must be clear of the body. The use of the sling is not permitted.

(2) *Sitting*.—Firer's body is supported by both feet and the buttocks. No other portion of the body may rest on the ground. The use of the sling is permitted when adjusted as described in paragraph 19-33.

(3) *Kneeling*.—Right knee on ground with right buttock resting directly on right heel. Left elbow extended over left knee. Sling permitted as described in paragraph 19-33.

(4) *Prone*.—Lower part of body rests on the ground. Firer's head is toward the target, and upper part of the body is supported by the elbows, which rest on the ground. No part of either arm below the elbow shall rest on the ground. No artificial support is permitted. The sling is permitted when adjusted as described in paragraph 19-33.

v. In pistol competitions the standing position only shall be used. No artificial support is permitted and only one hand may be used in supporting the pistol.

w. All teams shall designate two alternates on the Commanding Officer's certificate of eligibility. In case of injury to a member of a team during the competition firing, an alternate may be substituted to continue the firing from and including the range on which the principal was injured, provided such substitution is authorized by the chief range officer. However, once having been so substituted, the alternate must finish the match unless he also is injured.

x. Ties in rifle competitions are decided in favor of the team or individual:

(1) Having the highest aggregate score at longest range rapid fire or if tied there then at the next stage taking the stages in order; 200 yards rapid fire sitting from standing; 200 yards rapid

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fire kneeling from standing; 200 yards slow fire standing, sitting, and kneeling; then longest slow fire range. If still tied then by:

(2) Having the fewest misses in all classes of fire or the fewest number of shots of lowest value, etc.

(3) Having the fewest misses, shots of lowest value, etc., in the various stages considered in the order given above.

(4) Having the first shot of higher value when the slow fire shots are considered in the inverse order in which they are fired.

y. Ties in pistol competition are decided in favor of the team or individual:

(1) Having the highest aggregate score at the following stages taken in order: 25 yards rapid fire; 25 yards timed fire, slow fire. If still tied then by:

(2) Having the fewest misses in all classes of fire or the fewest number of shots of lowest value, etc.

(3) Having the fewest misses, shots of lowest value, etc., in the various stages considered in the order given above.

(4) Having the first shot of higher value when the slow fire shots are considered in the inverse order in which they are fired.

19-115. *PROFICIENCY*.—Officers and men are graded, according to proficiency, as experts, sharpshooters, marksmen, and unqualified. The unqualified class includes all officers and men who have never qualified and all who have fired but failed to qualify within the small-arms year for which the report is submitted.

19-116. *QUALIFICATION MEDALS*.—a. *Expert rifleman medal*.—One expert rifleman medal will be awarded to each officer or enlisted man who qualifies as an expert rifleman or carbine expert under rules in effect since July 1, 1931. Only one such medal will be awarded to any individual. Requests for medals should be submitted by the commanding officer to the Chief of Naval Operations after each period of firing. The request should give full name, rank or rate, and the service or file number of persons for whom medals are requested. It will be accompanied by a signed copy of Small Arms Sheet 2. Medals should not be requested for men who have received them by previous qualification. Individuals to whom expert rifleman medals have been awarded under rules in effect prior to July 1, 1931, may submit a request to the Chief of Naval Operations for permission to replace such medals at their own expense with the present type of medal. This request should contain information as to the date.

COMPETITION RULES; TROPHIES, MEDALS, AND QUALIFICATIONS

place, and score made on qualification and the name of the ship or station to which attached. The same procedure may be followed in case of a lost medal. Medals will be awarded to Navy personnel for qualification in Navy courses only; however, Navy expert rifleman or expert pistol shot medals will be awarded to Navy personnel who qualify as expert in a Marine Corps rifle (cal. .30), carbine, or pistol (cal. .45) course which, under the provisions of the Marine Corps order in effect at the time of firing, fulfill the following conditions:

(1) Qualification as expert is established for the course, and

(2) Expert badge or bar is awarded by the Marine Corps to Marine personnel for expert qualification in the course.

It is desired that Navy personnel fire Navy courses; they fire Marine courses only when it is impractical or inconvenient to fire Navy courses. Report of scores is required the same as for firing Navy courses. Individuals firing and applying for medals should definitely ascertain Marine Corps Order in effect at the time of firing. Marine Corps personnel will be awarded marksmanship badges for qualification over the Marine Corps courses only as prescribed by the Commandant, U. S. Marine Corps.

b. Expert pistol shot medal.—The provisions of subparagraph *a*, above, also apply to the award of the expert pistol shot medal for qualification with pistol or revolver.

19-117. *DURATION OF QUALIFICATION.*—The duration of qualification as expert rifleman, carbine expert, expert pistol shot, or expert revolver shot is indefinite. It terminates when an individual fires again for record and fails to attain the qualification of "expert." At this time, the individual should cease to wear the ribbon or medal, which may, however, be retained for use in event that qualification as expert is again attained in the future.

19-118. *OBJECTS OF COMPETITIONS.*—The object of small-arms competitions is to furnish commanding officers a means of stimulating interest in rifle and pistol shooting and to provide a morale-building factor. Special matches can be arranged with Army, Marine, and civilian shooting units almost anywhere in the United States, its possessions, or foreign ports. These matches provide recreation and at the same time encourage efficiency in small-arms training. The primary requisite of all competitions is the element of fairness, and to this end it is essential that organizations of approximately equal strength compete. In arranging the competitions commanding officers should be guided by

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this principle of approximate strength of the organizations competing. In force matches, the force commander may designate a group of smaller vessels, such as a destroyer squadron, as an equivalent of the largest type of vessel competing, such as a battleship.

19-119. *PRIZE MONEY*.—Prize money is paid to enlisted men of the Navy and to enlisted men of the Marine Corps. Prizes are awarded to the members of certain winning teams as announced annually by the Navy Department. Prizes should be paid without delay as soon as the official results of the competitions are available. Commanding officers are authorized to direct the payment of the prizes to which men are entitled. The letter directing the payment will list the men's names, rates, service numbers, divisions, kind of prize and value thereof. Prize money for enlisted men of the Navy shall be charged to the appropriation "Pay and Subsistence of Naval Personnel"; for enlisted men of the Marine Corps to "Pay, Marine Corps." The values of the prizes awarded for the various competitions will be announced annually by the Navy Department. The limitation of funds available for the payment of prizes makes it necessary to limit the number of competitions for which prizes are authorized. This should not, however, be considered as a limitation on the number, or kind, of competitions which may be held. On the contrary, opportunities to hold competitions should be sought as competition is of itself a great incentive for the men to become proficient in the use of the service small arms. Prize money will be paid only to those teams which make an average score per competitor, equal to the score required for qualification as expert. No prize money is paid to officers.

19-120. *INTERDIVISION COMPETITIONS*.—The members of any one team in these competitions must be from the same ship's division. Each ship may conduct one interdivision rifle and one interdivision pistol competition for prize money each small-arms year. Each division may enter one rifle and one pistol team. In competitions for which prize money is authorized, there shall be eight firing members on each rifle team and four firing members on each pistol team. The rifle course fired shall be the expert course. The pistol course fired shall be the expert course. Provided the ammunition allowance is not exceeded, there is no limitation on the number of interdivision competitions which do not involve prize money.

COMPETITION RULES; TROPHIES, MEDALS, AND QUALIFICATIONS

19-121. *INTERSHIP COMPETITIONS*.—The members of any one team in these competitions must be from the same ship. Each ship may enter one team in one intership rifle competition and one intership pistol competition for prize money in each small-arms year. In competitions for which prize money is authorized there shall be eight firing members on each rifle team and four firing members on each pistol team. The rifle course fired shall be the expert course. The pistol course fired shall be the qualification course. Not less than six of the firing members of each rifle team which competes for prize money in any intership competition shall be enlisted men and not more than two of the firing members of such a rifle team may be from the Marine Corps. All of the firing members of each pistol team which competes for prize money in an intership competition shall be enlisted men and not more than one of the firing members of such a team may be a Marine. Intership competitions may include an officers' pistol match, although prize money therefor is not authorized. Each of the four firing members of an officers' pistol team shall be a commissioned or warrant officer, and not more than one of the firing members of such a team may be a Marine officer. Provided the ammunition allowance is not exceeded there is no limitation on the number of intership competitions which do not involve prize money.

19-122. *FLEET MATCHES*.—Each Fleet of the Navy is authorized to hold annually one fleet rifle match, one fleet pistol match, and one officers' fleet pistol match. The fleet matches are intership competitions and each ship of each of the fleets is entitled to enter one team in each of the three fleet matches of that force in addition to the teams entered in the intership competitions described in paragraph 19-121. With the restriction that the minimum number of teams competing in any fleet match cannot be less than four, the fleet commander may designate the time and place for conducting the fleet matches for his command.

19-123. *FLEET RIFLE MATCH*.—*a*. One team captain and one team coach shall be designated for each team. There shall be eight firing members on each team. Either or both the team captain and the coach may also be firing members.

b. Not less than six of the firing members of each team shall be enlisted men.

c. Not more than two firing members of each team may be from the Marine Corps.

FLEET PISTOL MATCH

d. Not less than three of the firing members of each team shall be enlisted men who have not competed in any fleet or force rifle match prior to the gunnery year in which the match is fired.

e. The course fired shall be the rifle expert course.

f. The rules prescribed in paragraph 19-114 will apply.

19-124. *FLEET PISTOL MATCH.*—*a.* One team captain and one team coach shall be designated for each team. There shall be four firing members on each team. Either or both the team captain and the coach may also be firing members.

b. All firing members must be enlisted men and not more than one Marine may fire on each team.

c. Not less than two members of each team must be men who have never competed in any fleet or force pistol match prior to the gunnery year in which the match is fired.

d. The course fired shall be the pistol qualification course.

e. The rules prescribed in paragraph 19-114 will apply.

19-OFFICERS' *FLEET PISTOL MATCH.*—*a.* One team captain and one team coach shall be designated for each team. Either the team captain or team coach may, if otherwise qualified, act as firing members.

b. Each team shall consist of four officer-firing members.

c. Not more than one firing member may be a Marine officer.

d. Not less than two firing members must be officers who have not competed in any fleet or force pistol match prior to the gunnery year in which the match is fired.

e. The course fired shall be the pistol qualification course.

f. The rules prescribed in paragraph 19-114 will apply.

19-126. *FLEET TROPHIES.*—In the Fleets, a fleet trophy will be awarded to the team making the highest aggregate score in each of the Fleet rifle match and the fleet pistol match; provided that not less than four teams must compete in any competition for which a fleet trophy is awarded. No trophies are awarded for officers' fleet pistol matches. The fleet trophies will be transferred upon the completion of the matches for which they are awarded. The name of the winning vessel will be engraved on the trophy as soon as practicable after its receipt on board, and the cost of the engraving will be charged to the appropriation "Fleet Training, Navy," for the current fiscal year. The Navy Department shall be promptly informed of the amount expended for such engraving. Trophies will be retained by the winning

COMPETITION RULES ; TROPHIES, MEDALS, AND QUALIFICATIONS

ship until 30 days prior to the next matches of that fleet when they will be returned to the fleet commander for award in the coming matches.

19-127. *UNITED STATES FLEET MATCHES*.—Chief of Naval Operations is authorized to conduct annually one United States Fleet rifle match, one United States Fleet pistol match, and one United States Fleet officers' pistol match. These matches are competitions between the Fleets. Each of those units will enter but one team in each of the three matches of the United States Fleet. Each team will be formed entirely of personnel from the fleet represented. Competition of teams and rules governing the U. S. Fleet matches will be as prescribed in paragraph 19-114.

19-128. *U. S. FLEET TROPHIES*.—A U. S. Fleet trophy will be awarded to the team making the highest aggregate score in each of the U. S. Fleet rifle match and the U. S. Fleet pistol match. No trophy is awarded for the officers' U. S. pistol match. The U. S. Fleet trophies will be transferred upon the completion of the matches for which they are awarded to the flagship of the winning fleet. The name of the winning fleet will be engraved on the trophy as soon as practicable after its receipt and the cost of the engraving will be charged to the appropriation "Fleet Training, Navy," for the current fiscal year. The Navy Department shall be promptly informed of the amount expended for such engraving. Trophies will be retained by the winning fleet until 30 days prior to the next U. S. Fleet matches when they will be returned to the Commanders in Chief for award in the coming matches.

19-129. *TEAM MEDALS*.—A suitably engraved medal may be awarded by the officer ordering the match to each firing member of the winning team in each of the U. S. Fleet and fleet rifle and pistol matches. The medal so awarded becomes the property of the competitor to whom awarded. These medals must not be confused with the place medals described in paragraph 19-130, which are awarded for individual standing.

19-130. *PLACE MEDALS*.—*a.* Suitably engraved medals shall be awarded by the officer ordering the matches to the leading individuals for places in each of the U. S. Fleet and fleet matches. Competitors shall be ranked in the order of their individual aggre-

DISTINGUISHED MARKSMAN

gate scores. The number of medals awarded shall be in the following proportions:

U. S. Fleet Rifle match.—A total number of medals equal to twice the number of competing teams.

U. S. Fleet pistol match and officers' U. S. Fleet pistol match.—A total number of medals equal to the number of competing teams.

Fleet rifle match.—A total number of medals equal to one for each 12 competitors, plus one medal for a remainder greater than 7 competitors.

Fleet pistol match and officers' fleet pistol match.—A total number of medals equal to one for each 8 competitors.

b. No place medal shall be awarded to any competitor making an aggregate score of less than expert with the rifle or pistol.

c. Place medals must not be confused with team medals described in paragraph 19-129, which are awarded to members of winning teams.

19-131. *DISTINGUISHED MARKSMAN.*—A gold medal is awarded to officers or enlisted men of the Navy who are designated as distinguished marksmen by the Chief of Naval Operations. The designation as distinguished marksman will be made only upon receipt of an individual written application from those officers or men, in the active or reserve naval service, who have the qualifications herein specified. The qualifications for a distinguished marksman are:

(a) The applicant must have won three (3) medals (legs).

(b) Medals (legs) must have been won in either or both of the national rifle matches, namely, the national rifle team match and the national individual rifle match; or

(c) Having won any one (1) of the above medals, must have won two (2) medals (legs) for team or place in a United States Fleet rifle match.

(d) A total of one (1) leg will be recognized from sources other than the Navy in making this award.

(e) At least one (1) leg will be obtained as prescribed in paragraph (b) above.

(f) The necessary credits must have been obtained while the applicant was on the active or Reserve list of the Navy, except in the case of honoring one (1) leg as prescribed in paragraph (d) above.

COMPETITION RULES; TROPHIES, MEDALS, AND QUALIFICATIONS

19-132. *DISTINGUISHED PISTOL SHOT*.—A gold medal is awarded to officers or enlisted men of the Navy who are designated as distinguished pistol shots by the Chief of Naval Operations. The designation as a distinguished pistol shot is made only upon receipt of an individual written application from those officers or men in the active or Reserve Naval service who have the qualifications herein specified. The qualifications for a distinguished pistol shot are:

(a) The applicant must have three (3) medals (legs).

(b) Medals (legs) must have been won in either or both of the national pistol matches, namely, the national pistol team match and the national individual pistol match; or

(c) Having won any one (1) of the above medals, must have won two (2) medals (legs) for team or place in a United States Fleet Pistol Match.

(d) A total of one (1) leg will be recognized from sources other than the Navy in making this award.

(e) At least one (1) leg will be obtained as prescribed in paragraph (b) above.

(f) The necessary credits must have been obtained while the applicant was on the active or Reserve list of the Navy, except in the case of honoring one (1) leg as prescribed in paragraph (d) above.

SECTION XIV
RECORDS, REPORTS AND FORMS

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19-133. *ANNUAL REPORT*.*—The annual report shall be submitted in duplicate immediately upon completion of the small-arms year. The report shall consist of Small-Arms Sheet 1; Small-Arms Sheet 2 made out for all officers and men who qualified as expert during the year; and Small-Arms Sheet 3, all forwarded as enclosures to a letter which shall, in addition, cover the following points:

a. Request for the issue of such medals for qualification as have not previously been requested.

b. Comment on methods of training, dates and places of firing, and any other items of interest in connection with small-arms firing.

c. Report of ammunition expended.

Every vessel in commission in a fully operative status and those shore organizations which conduct small-arms training shall submit the annual report. Reports of Navy small-arms practices fired by Marine detachments afloat will be submitted as a part of the ships' reports, and an additional copy will be furnished the Commandant of the Marine Corps.

19-134. *REPORT OF PRIZE MONEY COMPETITIONS*.—Immediately upon the completion of a competition in which prize money is awarded, a report in dispatch form shall be made by the

* Note:—The annual small-arms report has been suspended until further notice.

RECORDS, REPORTS, AND FORMS

officer ordering the competition to the Commander in Chief, U. S. Fleet, giving the amount expended in prizes and the class of competition in which awarded. A report by mail shall also be submitted on Small-Arms Sheet 3 immediately upon completion of the competition.

19-135. *REPORT OF PLACE MEDALS*.—Immediately upon completion of a fleet or force small-arms competition, the Commander in Chief ordering the competition shall forward to the Chief of Naval Operations a report in duplicate giving the following information:

Date and place of each match.

Standing and aggregate score of each team.

Name, organization, and aggregate score of each competitor to whom a place medal was awarded. (See par. 19-130.)

19-136. *PIT RECORD*.—In the record practice a rough copy of the “**Report of scores**” (Small-Arms Sheet 2) will be kept in ink or indelible pencil in the pits by the chief pit officer. This copy is known as the pit record and will be kept by relays. Names of firers will not be entered but identification will be by relay and target number. Scores are then entered by the chief pit officer in the pit record in a manner similar to the method prescribed for the firing line. (See par. 19-72.) Pit cards will be used one for each target for each string. These will be collected by the chief pit officer and the data transferred to the pit record.

19-137. *FIRING LINE RECORD*.—In record practice another rough copy of the “**Report of scores**” (Small-Arms Sheet 2) will be kept in ink or indelible pencil at the firing line by the officer in charge of the firing line. This copy is known as the firing line record and will be kept by relays. Each firer will be identified by name as well as relay and target number. The data for this record is obtained from the score boards, by the officer in charge of the firing line, in the manner prescribed in paragraph 19-72. Score boards will be in the form of portable blackboards at the firing line, one for each target. Scores will be checked against the pit record before announcement of qualifications and before preparation of the smooth copy of Small-Arms Sheet 2 (par. 19-138.) In order that the pit record may be kept properly, the order of the relays must be maintained. If the officer in charge of the firing line fires for record his performance must be observed and score kept by another officer at the firing line, who will submit a separate report of scores in his case.

REPORT OF SCORES

19-138. *REPORT OF SCORES*.—Instructions for use of the “Report of scores” (Small-Arms Sheet 2) are printed on its back. Immediately after the close of each record practice, the officer in charge of the firing line will prepare and submit to each commanding officer concerned a smooth copy typewritten or in ink (in quadruplicate) of Small-Arms Sheet 2. Each copy will be certified, in the spaces provided, by both the chief pit officer and the officer in charge of the firing line. This smooth copy is compiled from the pit record and the firing line record (pars. 19-136 and 19-137). In case of disagreement between the two records the PIT RECORD WILL CONTROL.

19-139. *ENTRIES IN SERVICE RECORDS*.—Entries in service records of enlisted men are made by the commanding officer upon receipt of Small-Arms Sheet 2 (Report of scores). The entries should simply show the name of the ship or station, the date and the nature of the qualification. If an enlisted man fires record practice but fails to qualify, this fact should also be entered since it affects his eligibility to fire again. The record would then read:

U. S. S. ALASKA, 3/2/38, qualified as expert rifleman (or as the case may be).

(Signature)

or

U. S. S. ALASKA, 3/2/38, unqualified at record rifle (pistol) practice.

(Signature)

In the case of officers this information is forwarded to Chief of Naval Operations for eventual inclusion in the officers' file jacket in Bureau of Personnel.

19-140. *FORMS*.—Forms may be obtained from the Chief of Naval Operations or may be prepared from the samples shown herein. Samples of score board, pit card, and Small-Arms Sheets 1, 2, and 3 follow herewith:

RECORDS, REPORTS, AND FORMS

SCORE BOARD

Target No. —

Name and relay	Shot No.																Course						Total
																	Slow fire			Rapid fire			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Sit 200	K 200	P 500	Sit 200	K 200	P 300	
1																							
2																							
3																							
4																							
5																							

Qualification.....

FIGURE 42.—Sample score board.

PIT CARD

[illegible]

NOTE.—The pit card is not furnished by the Department.

U. S. N., Pit Officer

FIGURE 43.—Sample pit card.

FORMS

Small Arms—Sheet 1
(2 copies required by Department)

U. S.S.
....., 19.....

From: Commanding officer.

To: Chief of Naval Operations.

Subject: Annual Report of small-arms practice.

1. The following are the results attained by this vessel for the small-arms year ending June 30, 19.....

Table of officers and men who fired, with qualifications.

Number firing (A)	Course	Number qualified as (B)	Percent: (B) ÷ (A)
	Course A.....	Rifle Marksman	
	Course B.....	Rifle Marksman Rifle Sharpshooter Rifle Expert	
	Course C.....	Carbine Marksman Carbine Sharpshooter Carbine Expert	
	Course D.....	Pistol Marksman	
	Course E.....	Pistol Marksman Pistol Sharpshooter Pistol Expert	
	Course F.....	Revolver Marksman Revolver Sharpshooter Revolver Expert	
	Course G.....	Submachine Gun	
	Course H.....	Ground Machine Gun	
	Course I.....	Automatic Rifle	
	Course J.....	Boat Machine Gun	

Landing force complement.....officers,enlisted.
Authorized allowance.....officers,enlisted.
....., Commanding
(Signature)

FIGURE 44.—Small-arms sheet No. 1.

RECORDS, REPORTS, AND FORMS

Small Arms—Sheet 2.
(2 copies required by department.)

REPORT OF SCORES

[See instructions on reverse of this sheet]

U. S. S. _____ Division _____
Place _____ Date _____, 19____
Relay number _____

Target No.	Name	Rank or Rate	Scores : Course						Quali- fica- tion
								Total	

I certify that the above record practice was conducted in accordance with regulations.

(Name)

(Rank)
U. S. Navy, Officer in Charge of Firing Line.

Number of sheets in this report _____
This is sheet _____

NOTE.—On pistol ranges having no pits, chief pit officer's signature is not required.

FIGURE 45.—Small-arms sheet No. 2.

INSTRUCTIONS

- 1. This Report of Scores is to be kept both on the firing line by the officer in charge of the firing line and in the pit by the chief pit officer.
- 2. In main column "Scores", enter the course fired. In sub-columns, enter ranges fired showing type of fire by abbreviations (Slow fire—S.F.; Rapid fire—R.F.; Timed fire—T.F.; Semiauto-

FORMS

matic—S.A.; Automatic—A) and distance. Example: 500 yards slow fire—S.F. 500; 300 yards rapid fire—R.F. 300.

3. Data for the Report of Scores are obtained from two sources, viz:

(a) From the score boards on the firing line by the officer in charge of the firing line, who enters the name of the officer or man firing in the space opposite the number of the target on which such officer or man fired.

(b) From the pit cards in the pit by the chief pit officer who enters the score made on a target in the space opposite the number of the target.

The relay number shall always be entered on the Report of Scores. All entries on the Report of Scores shall be typewritten or in ink. It is desirable to group men from the same division or ship together on one sheet. If this is not done, the firer's ship and division should be shown with his name.

4. At the close of the firing the officer in charge of the firing line announces the results to the firers before they leave the range. He then transmits a smooth copy of the Report of Scores, free from erasures and interlineations to the commanding officer concerned. This smooth copy shall be appropriately certified by the chief pit officer and the officer in charge of the firing line.

5. This report is to be kept by commanding officers until the close of the small-arms year following.

6. Use abbreviations as follows: E, Expert; S, Sharpshooter; M, Marksman; U, Unqualified.

7. If pit cards are used, they may be sent to the firing line in place of the Report of Scores; but the Report of Scores must be kept, as it constitutes the official record.

8. The Report of Scores is designed to be kept in suitable binders. Copies of the form will be furnished on application to the Chief of Naval Operations.

9. One signed copy of Sheet 2 will accompany all requests for medals for qualifications when such requests are submitted separate from the annual report.

10. Two copies of Sheet 2 for all officers and men who qualified as experts during the year shall be submitted with the annual report.

RECORDS, REPORTS, AND FORMS

Small Arms—Sheet 3
(See note at bottom of sheet)

RANGE RECORD FOR TEAM COMPETITIONS

[Underline the proper competition]

INTERDIVISION AND INTERSHIP

Team Captain..... Course fired
..... Division. U.S.S.
Location of range..... Date....., 19....

Name	Rank or Rate	Total Scores		Aggregate	Qualification
		Slow fire	Rapid fire		
.....					
.....					
.....					
.....					
Total					

.....,
U. S. N., Score Taker.

.....,
U. S. N., Team Captain.

Other teams competing, their scores, and standing

Team	Total Scores		Aggregate	Order
	Slow fire	Rapid fire		
.....				
.....				
.....				
.....				

Standing of team..... Value of prize to each man.....
Draft of order for prizes submitted to commanding officer
....., 19....

.....,
U. S. N., Officer in Charge.

NOTE.—For each prize-winning team one copy of the Range Record for Team Competition is forwarded immediately to the Chief of Naval Operations and two copies are attached to and forwarded with the Annual Report of Small Arms Practice.

FIGURE 46.—Small-arms sheet No. 3.

SECTION XV

TARGET MATERIALS; INSTRUCTION SCHEDULES

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19-141. *TARGET MATERIALS.*—The Navy stocks certain standard items of target material which may be requisitioned, without charge, on request addressed to (a) Supply Officer in Command, NSD, Norfolk, Va. (b) Supply Officer in Command, NSD, Oakland, Calif. or (c) Supply Officer, Navy Yard, Pearl Harbor, T. H. Activities requesting nonstandard items must obtain approval of request addressed to Chief of Naval Operations.

STANDARD MATERIALS STOCKED IN NAVY SUPPLY DEPOTS

CENTER, REPAIR TARGET, A-C (For Carbine Marksmanship)

CENTER, REPAIR TARGET, B-C (For Carbine Marksmanship)

CENTER, REPAIR TARGET, D-C (Repair Rifle D Target)

CLOTH, TARGET, 72", yards

DISK, TARGET SPOTTER, 3"

DISK, TARGET SPOTTER, 5"

DISK, TARGET SPOTTER, 10"

FRAME, TARGET, 6 x 6 ft., COMPLETE

MARKER, TARGET, SHORT RANGE, COMPLETE

MARKER, TARGET, MID RANGE, COMPLETE

PASTE, TARGET, DRY, LBS

PASTER, TARGET, BLACK ENVELOPE OF 10,000

PASTER, TARGET, BUFF, ENVELOPE OF 10,000.

SPINDLE, TARGET SPOTTER

TARGET, PISTOL, L

TARGET, PISTOL, 25 YARD, STANDARD AMERICAN

TARGET, PISTOL, 50 YARD, STANDARD AMERICAN

TARGET, RIFLE A

TARGET, RIFLE B

TARGET, RIFLE D

SMALL BORE TARGETS

[For Preparatory Marksmanship Training]

TARGET, GALLERY RIFLE, SB-A-2 (miniature A Target)

TARGET, GALLERY RIFLE, SB-D-2 (miniature D Target)

TARGET, GALLERY RIFLE, OFFICIAL 50 FT.

TARGET, GALLERY PISTOL, OFFICIAL 50 FT. B-2 (Slow Fire)

TARGET, GALLERY PISTOL, OFFICIAL 50 FT. B-3 (Rapid Fire)

TARGET MATERIALS; INSTRUCTION SCHEDULES

19-142. *TARGETS*.—The specifications of dimensions of some targets, together with the values of the hits in their divisions, are as follows:

a. Target, Rifle A, used at 200 yards; 10-inch black aiming bull's-eye, rings as follows:

10 inches diameter	Value 5.
26 inches diameter	Value 4.
46 inches diameter	Value 3.
Remainder of target 6 feet high and 4 feet wide	Value 2.

b. Target, Rifle B, used at 500 yards; 20-inch black aiming bull's-eye, rings as follows:

20 inches diameter	Value 5.
37 inches	Value 4.
53 inches diameter	Value 3.
Remainder of target 6 feet by 6 feet	Value 2.

c. Target, Rifle D, used for rapid fire in .30-caliber rifle firing at 200 and 300 yards, rings as follows:

26" x 19" silhouette	Value 5.
34" x 37" silhouette	Value 4.
51" x 51" silhouette	Value 3.
Remainder of target 6' x 6' rectangle	Value 2

e. Target, gallery rifle, official 50 feet, used for small-bore rifle firing; a rectangle having ten bull's-eye, thereon. The 6, 7, 8, 9, and 10 rings are in the black. The dimensions of the various rings are as follows:

0.150 inch	Value 10.
0.483 inch	Value 9.
0.817 inch	Value 8.
1.150 inches	Value 7.
1.483 inches	Value 6.
1.817 inches	Value 5.

f. Target, gallery rifle, SB-A-2 (miniature A target), used at 50 feet for .22-caliber rifle fire.

0.83 inch	Value 5.
2.17 inches	Value 4.
3.87 inches	Value 3.
4" x 6" rectangle	Value 2.

SHOOTING PODS

g. Target, gallery rifle, SB-D-2 (miniature D target), used at 50 feet for .22-caliber rifle, rapid firing.

2.16" x 1.59" silhouette	Value 5.
2.80" x 3.08" silhouette	Value 4.
4.16" x 4.25" silhouette	Value 3.
6" x 6" rectangle	Value 2.

h. Target, gallery pistol, official 50 feet, B-2 (slow fire).

.90 inch	Value 10.
1.54 inches	Value 9.
2.23 inches	Value 8.
3.07 inches	Value 7.
4.16 inches	Value 6.
5.56 inches	Value 5.
7.33 inches	Value 4.

Only 10, 9, 8, and 7 rings blacked in.

i. Target, gallery pistol, official 50 feet, B-3 (rapid fire).

1.80 inches	Value 10.
3.06 inches	Value 9.
4.46 inches	Value 8.
6.14 inches	Value 7.
8.32 inches	Value 6.

Only 10 and 9 rings are blacked in.

19-143. *SHOOTING PADS*.—*a.* The use of padding on the elbows and on the shoulder is essential for men who are to be instructed in firing the rifle. Shooting coats can be made by adding padding in the correct places to dungaree shirts or coats. For men firing the automatic rifle, the shoulder padding is not needed. For men firing the pistol the use of a small piece of surgeon's plaster may be permitted in order to protect the hand from the rebound of the hammer. The use of a light glove on the left hand may be permitted to men firing the rifle. Men should be instructed in the kinds of padding to be used and should be required to have a padded uniform prepared before the instruction in positions is given. During the preparatory exercises the men under instruction are required to wear the same padding that they will use during the range firing. This is necessary in order to accustom the men to holding and manipulating the rifle when the pads are worn. If this is not done in the preparatory exercises a part of the limited time on the range will be wasted.

TARGET MATERIALS; INSTRUCTION SCHEDULES

b. Elbow pads should be only of sufficient thickness to prevent skinning or bruising the elbows. The firer should be able to feel the ground through the pads and be able to utilize small depressions as supports for the points of the elbows. The great majority of elbow pads are entirely too thick; they form large rounded surfaces which allow the elbows to slip easily. A suitable pad may be made from a piece of sheepskin from which the wool has been clipped to within one-quarter of an inch of the skin. Soft wash leather together with one thickness of bath toweling also makes a suitable elbow pad.

c. Shoulder pads should not be too thick. Two or three thicknesses of bath toweling are sufficient. If sheepskin is used, the wool should be clipped to within about one-half of an inch from the skin.

19-144. *INSTRUCTION SCHEDULES*.—The schedules which follow have been used with excellent results. They are printed as a guide to instructors and may be modified as conditions warrant.

a. *Preparatory exercise*.—First five days.

b. *Range firing*.—Second five days.

(1) Two periods per day available.

(2) A total of 80 hours included.

(3) Instruction in both M-1 Rifle and Automatic Pistol is covered.

INSTRUCTION SCHEDULES

FIRST DAY

Hours	Subject
1	Draw M-1 rifles, shooting coats, score books.
½	General on M-1 rifle and outline of schedule.
½	Training film—TF-7-969 "Sighting and Aiming."
1½	Sighting and aiming exercises (Using sight pictures and sighting device).
2	Nomenclature—Assembly and disassembly.
1	Blackening sights—Safety precautions.
1	Care and cleaning—Demonstration and application.

SECOND DAY

- 1 Training Film—TF-7-652 "Positions."
- 2½ Position Exercises and Use of Sling.
- 2 Sighting and Aiming Exercises (Triangulation Exercise).
- 1 Position Exercises.
- 1 Care and Cleaning.

THIRD DAY

- ½ "Relief" Movie.
 - ½ Training Film TF-7-1094 "Trigger Squeeze."
 - ½ Trigger Squeeze Exercises (snapping in).
 - 2 Position Exercises.
 - ½ General on .22 Rifle and Why Used.
 - 3½ Fire Up to Rapid Fire Stage of "K" Course with .22 Rifle.
- Note: Idle relays review morning exercises.

FOURTH DAY

- ½ Training Film TF-7-1062 "Rapid Fire."
 - 1½ Rapid Fire Exercises (Cadence Exercise); Assuming Positions Quickly.
 - 1½ Fire Rapid Fire Stage of "L" Course with .22 Rifle.
- Note: Idle relays review cadence drills.
- ½ "Relief" Film.
 - ½ Training Film—"Elevation and Windage."
 - 1 Lecture on Windage Rule, Light, Elevation Rule.
 - 2 Rapid Fire Exercises.

FIFTH DAY

- ½ Training Film—TF-7-1101 "Zeroing and Use of Score Book."
 - 1 Lecture on Zeroing and Use of Scorebook.
 - 1 Rapid Fire Exercises and Snapping In.
 - 1 Written Examination Sighting and Aiming, Positions, Trigger Squeeze and Rapid Fire.
 - 4 Fire Complete "K" Course with .22 Rifle.
- Note: Idle Relays Review Cadence Exercises and Snapping in.

TARGET MATERIALS; INSTRUCTION SCHEDULES

SIXTH DAY

Hours

- 4½ Lecture on Range Operation and discipline; Butt Operation; Safety Precautions; Zero .30 Caliber Rifle.
Fire:
4 Rds. Sighters, Prone, Target A, SF 200 yds.
4 Rds. Sighters, Prone, Target D, SF 300 yds.
4 Rds. Sighters, Prone, Target B, SF 500 yds.
4 Rds. Standing, Target A, SF 200 yds.
4 Rds. Sitting, Target A, SF 200 yds.
4 Rds. Kneeling, Target A, SF 200 yds.
8 Rds. Sitting from Standing, Target D, 35 secs. RF 200 yds.
- 3 Fire:
16 Rds. Kneeling from Standing, Target D, 60 secs. RF 200 yds.
8 Rds. Prone from Standing, Target D, 35 secs. RF 300 yds.
8 Rds. Prone, Target B, SF 500 yds.
- 1 Cleaning M-1 Rifle by Shooters.

SEVENTH DAY

- 4½ Fire:
4 Rds. Standing, Target A, SF 200 yds.
16 Rds. Sitting from Standing, Target D, 60 secs. RF 200 yds.
16 Rds. Kneeling from Standing, Target D, 60 secs. RF 200 yds.
16 Secs. Prone from Standing, Target D, 65 secs. RF 300 yds.
8 Rds. Prone, Target B, SF 500 yds.
- 1½ Lecture and Demonstration Firing .45 Caliber Pistol, .30 Caliber Carbine, TSMG, Submachine Gun M-3, and BAR.
- 2½ Fire .22 Caliber Pistol "L" Course.

EIGHTH DAY

- 4½ Fire:
4 Rds. Standing Target A, SF 200 yds.
16 Rds. Sitting from Standing, Target D, 60 secs. RF 200 yds.
16 Rds. Kneeling from Standing, Target D, 60 secs. RF 200 yds.
16 Rds. Prone from Standing, Target D, 65 secs. RF 300 yds.
8 Rds. Prone, Target B, SF 500 yds.
- 1 Lecture on .45 Caliber Pistol.
- 3 Fire:
Pistol Marksman Course with .45 Caliber Pistol for Preliminary Qualification.

NINTH DAY

- ½ Fire:
Pistol Marksman Course for Qualification; Care and Cleaning .45 Caliber Pistol—Field Stripping.
- 4 Fire:
Course "B" for Preliminary Record.

INSTRUCTION SCHEDULES

TENTH DAY

Hours

$\frac{1}{2}$ Fire:

RECORD PRACTICE—Course "B"—

4 Rds. Standing Target A, SF 200 yds.

4 Rds. Sitting, Target A, SF 200 yds.

4 Rds. Kneeling, Target A, SF 200 yds.

16 Rds. Sitting from Standing, Target D, 60 secs. RF 200 yds.

16 Rds. Kneeling from Standing, Target D, 60 secs. RF 200 yds.

4 16 Rds. Prone from Standing, Target D, 65 secs. RF 300 yds.

8 Rds. Prone, Target B, SF 500 yds.

TEXT REFERENCES:

- 1) Chapter 19, Landing Force Manual.
- 2) U. S. Rifle, Caliber .30, M-1 FM 23-5.
- 3) Automatic Pistol Caliber .45 M1911 and M1911 A1 FM 23-35.

TRAINING AIDS:

- 1) Training Chart Series 9-2 (1-11) (War Department).
- 2) Rifle Marksmanship with the M-1 Rifle, Preparatory Training.
 TF-7-969—Sighting and Aiming.
 TF-7-652—Positions.
 TF-7-1094—Trigger Squeeze.
 TF-7-1062—Rapid Fire.
 TF-7-1100—Elevation and Windage.
 TF-7-1101—Zeroing and Use of the Score Book.
- 3) Instructional Sighting Device.

LANDING-FORCE MANUAL

UNITED STATES NAVY

1938

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CHAPTER 19

SMALL ARMS MARKSMANSHIP

(Reprinted 1941 with all changes up to and including No. 5)



UNITED STATES
GOVERNMENT PRINTING OFFICE
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NAVY DEPARTMENT,
Washington, April 18, 1939.

1. Small Arms Markmanship, Chapter 19, Landing Force Manual, United States Navy, is approved for the use and guidance of the Naval Service and will be placed in effect on July 1, 1939.

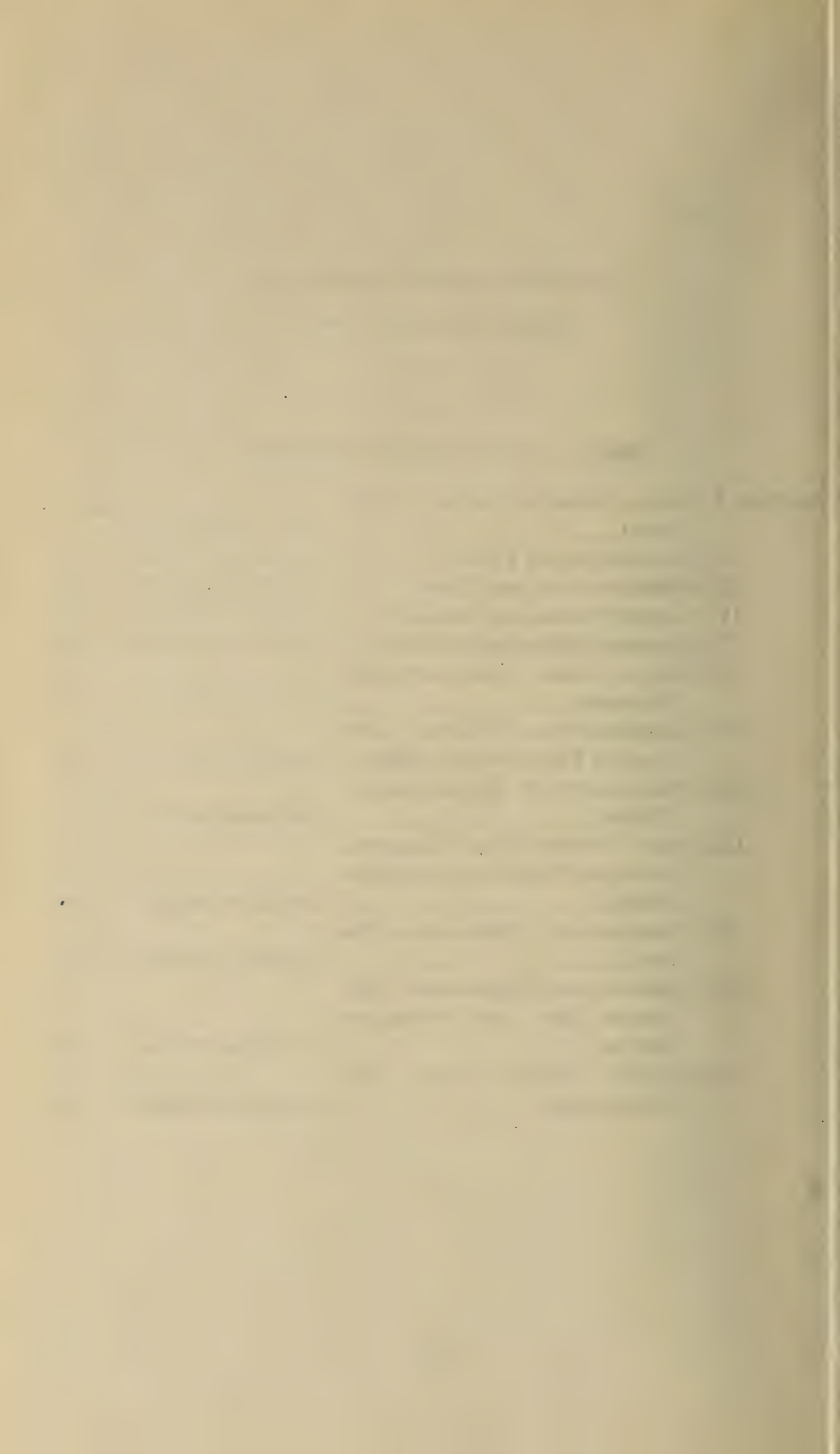
2. This publication supersedes United States Navy Small Arms Firing Regulations and Instructions, 1931.

WILLIAM D. LEAHY,
Acting Secretary of the Navy.

FOREWORD

The Landing-Force Manual, United States Navy, 1938, is published in nineteen chapters as follows:

- CHAPTER 1. INTRODUCTION.
- CHAPTER 2. INDIVIDUAL INSTRUCTION WITHOUT ARMS AND WITH ARMS (RIFLE, AUTOMATIC RIFLE, SUBMACHINE GUN, PISTOL, AND BAYONET).
- CHAPTER 3. DRILL, THE SQUAD, PLATOON, AND COMPANY.
- CHAPTER 4. FORMATIONS OF THE BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 5. CART DRILL.
- CHAPTER 6. DRILL, MACHINE GUN, CALIBER .30.
- CHAPTER 7. DRILL, THE SPECIAL-WEAPONS PLATOON (37-MM. GUN AND 81-MM. MORTAR).
- CHAPTER 8. DRILL, ARTILLERY.
- CHAPTER 9. THE INFANTRY PACK, AND DISPLAY OF EQUIPMENT AND CLOTHING.
- CHAPTER 10. CEREMONIES; AND MANUAL OF THE COLOR, SWORD, AND GUIDON.
- CHAPTER 11. INTERIOR GUARD DUTY AND GUARD MOUNTING.
- CHAPTER 12. MARCHES, SECURITY ON THE MARCH, AND OUTPOSTS.
- CHAPTER 13. TENT DRILL AND SHELTER.
- CHAPTER 14. FIELD SANITATION, PERSONAL HYGIENE, AND FIRST AID.
- CHAPTER 15. EXTENDED-ORDER EXERCISES, COMBAT PRINCIPLES OF THE RIFLE SQUAD AND PLATOON, AND COMBAT SIGNALS.
- CHAPTER 16. TACTICS AND TECHNIQUE OF THE RIFLE COMPANY, AND INFANTRY BATTALION, REGIMENT, AND BRIGADE.
- CHAPTER 17. THE DEFENSE AND ATTACK OF CITIES, RIOT DUTY, AND NATIONAL DISASTERS.
- CHAPTER 18. PHYSICAL DRILL.
- CHAPTER 19. SMALL ARMS MARKSMANSHIP.



SECTION I

SMALL ARMS EXERCISES—GENERAL

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19-1. *OBJECT*.—The object of the exercises prescribed herein is to prepare the Navy for the most effective use in war of all of the service small arms. In order that this may be accomplished it is essential that the correct firing habits become so fixed that the proper method of firing becomes the most natural method. Men in the excitement of battle will then do the correct thing, although they may be unconscious of having done so. This primary object of the exercises must be kept in mind by all officers. No details of organization or of training will be introduced which do not assist in attaining this object.

19-2. *SCOPE*.—The term “small-arms exercises” includes all the forms of practices fired with rifles, pistols, and automatic rifles and the machine-gun practices listed herein. The present publication covers only individual instruction and firing at bull’s eye targets and at known ranges. This limitation in scope is imposed by the limited time available for small arms training. Collective firing, or firing under conditions which simulate battle, removes the firer from the immediate supervision of the instructor, and for this reason can not be profitably employed until after the individual instruction has been completed. It is considered that time and facilities available will ordinarily not permit individual instruction at ranges greater than 500 yards. Advantage should, however, be taken of opportunities to gain greater experience by firing at the longer ranges, pro-

SMALL ARMS EXERCISES—GENERAL

vided that the firing can be done under proper supervision and without exceeding the ammunition allowance.

19-3. *METHODS TO BE FOLLOWED*.—The methods prescribed have been thoroughly tested and are known to produce excellent results when properly carried out. Having due regard for the special conditions existing in the Navy, they conform closely to the methods in use in the Army and Marine Corps. In an organization such as the Navy, where training is subject to interruption by special demands of the service, it is essential that the methods of training be uniform. Where more than one method is used, even if these methods be equally good, a great loss of time and effort will be caused by transfers from one method to the other. For this reason the prescribed methods are made mandatory.

19-4. *ARMS*.—Unless otherwise stated, all exercises will be conducted with the service small arms. The rifles and pistols used in practice firing, record firing, and in the competitions for which prize money is offered will be the service rifle, or service pistol, issued as a regular part of the ordnance equipment of the ship. The arms must be in their designed operating condition, without additions or subtractions. No alterations are permitted, except that in the case of the rifle the rear sight drift slide may be replaced with one having a larger peephole, and that in the case of the pistol the rear sight may be moved and the rear sighting notch enlarged. The replacement of worn or broken parts, the smoothing of roughened bearing surfaces, and the relieving of the barrel from the pressure of a warped or swollen stock are considered to be repairs. Such repairs are permissible when done for the purpose of restoring the arm to its designed operating condition. It is incumbent on all officers and men to see that the spirit of these regulations is not violated.

19-5. *APPARATUS*.—The apparatus used in the preliminary training is of a simple nature and can be readily constructed aboard ship. Care must be used to see that the apparatus presents a neat and finished appearance. The use of complicated apparatus must be avoided, lest the apparatus absorb the time and interest which should be devoted to training.

19-6. *AMMUNITION*.—The ammunition allowance is limited. This fact makes it all the more necessary that the preliminary training be carried out with the utmost thoroughness. Sighting shots have been eliminated because they are unnecessary if proper use is made of the information gained in practice firing. The ammunition used for practice firing, record firing, and unless otherwise authorized, for

INSTRUCTORS

competitions will be the regular ammunition issued to the ship and designated for such use by the Bureau of Ordnance. As there are a number of lots and makes of ammunition issued for target practice, care should be taken to see that each man fires for record with the same kind and lot of ammunition that he used in practice. In competitions the element of fairness can only be preserved by requiring all competitors to use the same kind and lot of ammunition. In their annual report of small-arms firing, ships are required to state the average number of rounds per man used in the preparation for and the firing of each qualification course. Attention is called to the fact that there is a definite relation between the thoroughness of preliminary instruction and the average number of rounds required for qualification.

The allowance of ammunition is as follows:

Rifle:	Rounds
For each officer and man who actually fires.....	165
For each qualified marksman in training for and firing the sharp-shooter and expert course an additional.....	235
Pistol: For each officer and man who actually fires.....	350
Machine gun, or automatic rifle: For each officer and man (up to 20 percent of the authorized allowance) who actually fires—Grade MG.....	360
Team training.....	Prescribed annually by Navy Department

A report of the expenditure of ammunition under each of the above headings shall be included in the annual report. Marine detachments firing the Marine Corps courses shall observe the requirements of current Marine Corps orders as regards ammunition allowances.

19-7. *INSTRUCTORS*.—Proper supervision is essential. The staff of instructors should be organized and instructed in the prescribed methods before the actual training begins. This preliminary instruction is necessary even when the instructor is an expert shot. The ability to shoot well is only one of the qualifications of an instructor. Provided the instructor has the other necessary qualifications, the reputation of being an expert shot will enhance his value as an instructor. Instructors whose performance is satisfactory will have an appropriate entry made in their service records.

19-8. *COACHING*.—Men under instruction should, from the very beginning, be required to coach each other. The activities of the men acting as coaches must, however, be supervised by the instructors.

19-9. *PERSONNEL TO BE TRAINED*.—Under ordinary conditions there will be insufficient opportunity to give a thorough course of small-arms training to the entire complement of a ship. Since training which stops short of thoroughness is very largely wasted, it

SMALL ARMS EXERCISES—GENERAL

has been necessary to restrict the number required to be trained to the number that can be trained thoroughly. The service standard landing force, without band, as prescribed by the commanders of the major subdivisions of the United States Fleet, has accordingly been made the basis for determining the enlisted personnel who are required to be trained. Where no such landing force has been prescribed, the number required to be trained shall be 30 percent of the authorized allowance of the vessel.

The detailed requirements are as follows:

(1) All officers below the rank of commander (except officers of the Medical, Dental, and Chaplain Corps) shall be given training in the pistol courses.

(2) All officers of the landing force below the rank of lieutenant commander (except officers of the Medical, Dental, and Chaplain Corps) shall be given training in the rifle and pistol courses. Medical and dental officers of the landing force shall be given training in the pistol courses.

(3) All enlisted men of the landing force (or 30 percent of the authorized allowance if no landing force is prescribed) shall be given training in the rifle courses, except that Hospital Corps men, and men armed with the pistol need not be so trained.

(4) All enlisted men of the landing force armed with pistols shall be given training in the pistol courses. Hospital Corps men of the landing force shall also be given that training.

(5) All enlisted men of the landing force armed with automatic rifles or machine guns shall be given the training required by (3) above, and also training in the courses for the weapons with which they are armed.

(6) All officers and men who elect to fire for medals shall be given training in the courses that are to be fired.

19-10. *SHIPS THAT FIRE*.—All vessels in commission in a fully operative status shall carry out the exercises herein prescribed unless excused by the commander of the type to which such vessel belongs. When, in the opinion of the commander of the type to which a vessel belongs, the best interests of the service would be served by excusing that vessel from small-arms firing, a statement to that effect will be forwarded in lieu of the regular annual report. Vessels in commission but not in a fully operative status and vessels detailed for training reserve personnel shall carry out such of the practices prescribed herein as, in the opinion of the type commander, will improve their efficiency and as permitted by their operating schedule and the state

TRAINING STATIONS

of training of their personnel. Every effort must be made to hold the exercises. Personnel of Submarine Bases, Naval Air Stations, and Aircraft Squadrons based ashore may be considered analogous to ships in commission, whenever, within the discretion of the commanding officer, sufficient time can be made available for small-arms training.

19-11. *TRAINING STATIONS*.—Recruits at training stations will be given training in the preparatory exercises and range instruction for the marksman's course. This instruction will be as complete as the requirements of the recruit training schedule will permit and, if practicable, will include record firing of the marksman's course. It is not expected that time will allow for thorough training in the more advanced courses.

19-12. *MARINES*.—Officers and enlisted men of the Marine Corps will be governed by these regulations when firing the Navy courses, except that no Navy qualification medals will be awarded them. The courses and methods of training prescribed herein are not mandatory for Marine Corps personnel, however.

19-13. *PROFICIENCY*.—Officers and men are graded, according to proficiency, as expert riflemen, rifle sharpshooters, rifle marksmen, expert pistol shots, pistol sharpshooters, pistol marksmen, and unqualified. The unqualified class includes all officers and men who have never qualified and all who have fired but failed to qualify within the small-arms year for which the report is submitted.

19-14. *SMALL-ARMS YEAR*.—The small-arms year is from July 1 to June 30, except that for vessels of the Asiatic Fleet it shall be from May 1 to April 30.

SECTION II

COURSES TO BE FIRED

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19-15. *THOSE WHO FIRE.*—In paragraph 19-9 are listed the officers and men to whom small-arms training is required to be given. Such of these officers and men who fail to satisfactorily complete the prescribed course of preparatory exercises will not be permitted to fire. Officers and men who qualified as expert riflemen during the year immediately preceding the current small arms year, are not required to fire the rifle marksman's course. With this exception, officers and men who satisfactorily complete the prescribed course of preparatory exercises will fire in accordance with the following table:

Classification of those who fire	Courses to be fired							
	Rifle		Pistol		M. G. A. R.		22 R.	22 P.
	A	B	C	D	E	F	G	H
1. All officers below the rank of commander (except officers of the Medical, Dental, and Chaplains Corps).....			(X or X)				Optional	
2. All officers of the landing force below the rank of lieutenant commander (except officers of the Medical, Dental, and Chaplains Corps) ¹	X	X	(X or X)				Optional	
3. All enlisted men of the landing force except Hospital Corpsmen and those armed with the pistol. (Where no landing force is prescribed the number required to fire shall equal 30 percent of the authorized allowance of the vessel).....	X	X					Optional	
4. All enlisted men of the landing force who are armed with automatic rifles or machine guns.....	X	X			(X or X)		Optional	
5. Hospital Corpsmen and enlisted men of the landing force who are armed with pistols.....			(X or X)				Optional	
6. Any of the above officers and men who may elect to fire additional courses for qualification.....			(Courses elected)					
7. Any officers or men in addition to the above who may elect to fire any courses for qualification.....			(Courses elected)					

¹ Medical and dental officers, courses C or D.

19-16. *COURSES TO BE FIRED.*—*a. Instruction practice.*—The instruction practice courses are intended to serve as guides in the range instruction. Only the general plan of beginning the practice in the prone position with the sandbag rest need be followed. The

COURSES TO BE FIRED

amount of instruction practice in each position and at each range may be varied at the discretion of the officer in charge of the instruction, provided the ammunition allowances (par. 19-6) are not exceeded.

b. Record practice.—Record firing will be conducted in accordance with the rules prescribed in Section III. Once the record firing of any course is commenced it will be fired to completion. The record firing of any one course must be completed in one day.

19-17. *RIFLE MARKSMAN COURSE.*—The positions used will be the standard positions as described in Section VIII.

COURSE A.—RIFLE MARKSMAN
TABLE I (a).—*Instruction practice*

Range	Time limit	Shots	Target	Positions
200 yards.....	None.....	10.....	A	Prone, with sandbag rest.
Do.....	do.....	10.....	A	Prone.
Do.....	do.....	10.....	A	Sitting.
Do.....	30 seconds per string.....	4 strings of 5 each.....	A	Prone.
Total shots, each firing.....				50
Total shots, two firings.....				100

TABLE II (a).—*Record practice*

Range	Time limit	Shots	Target	Positions
200 yards.....	None.....	10.....	A	Prone.
Do.....	do.....	10.....	A	Sitting.
Do.....	30 seconds per string.....	2 strings of 5 each.....	A	Prone.
Total shots record firing.....				30
Maximum score.....				150
Qualifying score—marksman.....				120

19-18. *RIFLE SHARPSHOOTER AND EXPERT COURSE.*—The positions used are the standard positions described in Section VIII. In the standing position the sling is required to be adjusted to the parade position and shall not be used as an aid in firing. In the rapid-fire stages at 200 yards the firer is required to remain standing, with the rifle at the “Ready” until the targets appear.

COURSE B.—RIFLE SHARPSHOOTER AND EXPERT
TABLE III. (b).—*Instruction practice*

Range	Kind of fire	Time limit	Shots	Target	Position
200.....	Rapid.....	1 minute and 10 seconds.	10	A	Prone from standing.
200.....	do.....	1 minute.....	10	A	Sitting from standing.
200.....	Slow.....	None.....	10	A	Standing.
Total shots for one firing.....					30
Total shots for 3 firings.....					90

PISTOL COURSES

TABLE IV (b).—*Instruction practice*

Range	Kind of fire	Time limit	Shots	Target	Position
500.....	Slow.....	None.....	10	B	Prone.
500.....	Rapid.....	1 minute and 20 seconds.	10	B	Do.
Total shots, one firing.....					20
Total shots, two firings.....					40
Total shots, instruction practice (b), Tables III and IV.....					130

TABLE V (b).—*Record practice*

Range	Kind of fire	Time limit	Shots	Target	Position
200.....	Rapid.....	1 minute and 10 seconds.	10	A	Prone from standing.
200.....	do.....	1 minute.....	10	A	Sitting from standing.
200.....	Slow.....	None.....	10	A	Standing.
500.....	do.....	do.....	10	B	Prone.
500.....	Rapid.....	1 minute and 20 seconds.	10	B	Do.
Total shots, record firing.....					50
Maximum score.....					250
Qualifying score—Sharpshooter.....					201
Qualifying score—Expert.....					220

19-19. *PISTOL COURSES*.—The position used is the standing position without artificial support. Only one hand may be used to support the pistol while firing.

COURSE C—PISTOL

TABLE VI (c).—*Instruction practice*

Range	Kind of fire	Time limit	Target	Position	Shots
25 yards.....	Slow.....	None.....	B	Standing.....	14
	Timed.....	30 seconds for 7 shots.....	B	do.....	14
Total shots, each firing.....					28
Total shots, 2 firings.....					56

TABLE VII (c).—*Instruction practice*

Range	Kind of fire	Time limit	Target	Position	Shots
50 yards.....	Timed.....	30 seconds for 7 shots.....	B	Standing.....	14
25 yards.....	Rapid.....	15 seconds for 7 shots.....	B	do.....	14
Total shots, each firing.....					28
Total shots, 3 firings.....					84
Total shots, instruction firing.....					140

COURSES TO BE FIRED

TABLE VIII (c).—*Record practice*

Range	Kind of fire	Time limit	Target	Position	Shots
25 yards.....	Timed.....	30 seconds for 7 shots.....	B	Standing.....	14
Do.....	Rapid.....	15 seconds for 7 shots.....	B	do.....	14
50 yards.....	Slow.....	None.....	B	do.....	14
Do.....	Timed.....	30 seconds for 7 shots.....	B	do.....	14
Total shots record firing.....					56
Maximum score.....					280
Qualifying score:					
Expert.....					245
Sharpshooter.....					225
Marksman.....					200

NOTE.—For method of scoring the "B" target, when used for the pistol course, see paragraph 19-22c.

COURSE D—PISTOL

TABLE IX.—*Record practice*

[To be used only where 50-yard ranges are not available]

[Instruction practice for Course D.—Same as Table VI (c) above]

Range	Kind of fire	Time limit	Target	Position	Shots
25 yards.....	Timed.....	30 seconds for 7 shots.....	B	Standing.....	14
Do.....	Rapid.....	15 seconds for 7 shots.....	B	do.....	14
Do.....	Timed.....	30 seconds for 7 shots.....	L	do.....	14
Do.....	Rapid.....	15 seconds for 7 shots.....	L	do.....	14
Total shots.....					56
Maximum score.....					420
Qualifying score:					
Expert.....					360
Sharpshooter.....					330
Marksman.....					300

No medals allowed for course D.

19-20. *MACHINE GUN AND AUTOMATIC RIFLE COURSES.*—The enlisted men of the landing force who are armed with the automatic rifle or machine gun are required to fire one of these courses. Instruction practice is not specified, but the ammunition allowance for instruction practice is 260 rounds per man.

COURSE E—MACHINE GUN

Record practice

Range	Kind of fire	Time limit	Target	Shots
200.....	Bursts of 3 to 5.....	None.....	B	10
200.....	do.....	35 seconds.....	B	20
200.....	do.....	20 seconds.....	B	20
500.....	do.....	None.....	B	10
500.....	do.....	40 seconds.....	B	20
500.....	do.....	20 seconds.....	B	20
Total shots.....				100
Maximum score.....				500
Qualifying score.....				260

SMALL BORE COURSES

COURSE F—AUTOMATIC RIFLE

Record practice

Range	Kind of fire	Time limit	Position	Target	Shots
200.....	Single shots.....	None.....	Prone with sandbag rest.	B	10.
200.....	Semiautomatic.....	20 seconds.....	Prone.....	B	10.
200.....	do.....	25 seconds for 10 shots.	Sitting.....	B	3 strings of 10 shots each.
500.....	Single shots.....	None.....	Prone.....	B	10.
500.....	Semiautomatic.....	1 minute, 20 seconds.	do.....	B	40.

Total shots.....	100
Maximum score.....	500
Qualifying score.....	300

19-21. *SMALL-BORE COURSES.*—The small-bore courses are not required to be fired, but are highly desirable as a preliminary step to instruction practice, where time and facilities are available.

COURSE G—.22-CALIBER RIFLE

Range	Kind of fire	Time limit	Position	Target	Shots
50 feet.....	Slow.....	None.....	Prone.....	Small bore A, 50 feet.....	20
Do.....	do.....	do.....	Sitting.....	do.....	20

Total shots.....	40
Maximum score.....	400
Qualifying score.....	320

COURSE H—.22-CALIBER PISTOL

Range	Kind of fire	Time limit	Position	Target	Shots
50 feet.....	Slow.....	None.....	Standing.....	L	20

Total shots.....	20
Maximum score.....	200
Qualifying score.....	160

19-22. *TARGETS.*—The specifications of dimensions of the targets, together with the values of the hits in their divisions, are as follows:

a.—Target A, used at 200 yards; 10-inch black aiming bull's-eye, rings as follows:

10 inches diameter.....	Value 5.
26 inches diameter.....	Value 4.
46 inches diameter.....	Value 3.
Remainder of target 6 feet high and 4 feet wide.....	Value 2.

COURSES TO BE FIRED

b.—Target B, used at 500 yards; 20-inch black aiming bull's-eye, rings as follows:

20 inches diameter	Value 5.
37 inches diameter	Value 4.
53 inches diameter	Value 3.
Remainder of target 6 feet by 6 feet	Value 2.

c.—Target B, when used for pistol firing; 20-inch black aiming bull's-eye, rings as follows:

12 inches diameter (the "V" ring)	Value 5.
20 inches diameter	Value 4.
37 inches diameter	Value 3.
53 inches diameter	Value 2.
Remainder of target 6 feet by 6 feet	Value 0.

Note the difference in value of hits when Target B is used for pistol firing.

d.—Target L, used for small-bore pistol firing; 5-inch black aiming bull's-eye, rings as follows:

5 inches diameter	Value 10.
8½ inches diameter	Value 9.
12 inches diameter	Value 8.
15½ inches diameter	Value 7.
19 inches diameter	Value 6.
22½ inches diameter	Value 5.
26 inches diameter	Value 4.
46 inches diameter	Value 3.
Remainder of target 6 feet high by 4 feet wide	Value 2.

e.—Small-bore target A, 50 feet used for small-bore rifle firing; a rectangle having five small targets thereon. The 7, 8, 9, and 10 rings are in the black. The dimensions of the various rings are as follows:

0.150 inch	Value 10.
0.483 inch	Value 9.
0.817 inch	Value 8.
1.150 inches	Value 7.
1.483 inches	Value 6.
1.817 inches	Value 5.

SECTION III

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19-23. *RANGE OFFICER*.—At all ranges a range officer will be appointed who will be charged with the care and police of the range, the necessary repairs to targets, shelters, pits, and firing points, the supervision of permanent details, the condition of the telephone service and the supply of all materials such as disks, spotters, targets, pasters, paste, etc., necessary to the conduct of the fire. He will not be responsible for the details of the instruction of firing parties which use the range but will have general supervision of the firing. He will maintain order, regulate the distribution of targets and ranges to firing parties; prevent infractions of the regulations; take necessary precautions for the protection of firers, scorers, markers, spectators, and passers-by; and in general assist by every proper means to secure efficient and accurate service from the working of the range. Where necessary he will post guards to prevent persons or animals crossing the range, provide means of signaling from the guards to the pits in case it becomes necessary to cease firing and see the necessary danger signals flown as a warning to individuals that firing is in progress.

19-24. *PERMANENT DETAILS*.—Such officers, chief petty officers, and enlisted personnel should be detailed permanently to the range, at least for the practice season, as the commanding officer sees fit. These details should be organized under the range officer in such a way as will best serve the purpose in hand. An officer or chief petty officer should be in general charge of each pit. It will be his duty to see that targets are ready for firing; that they are service-

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able; that target details are provided, as soon as they report, with proper flags, disks, paste, pasters, spotters, etc.; that order is maintained in the pits and that the pit details perform their duties properly. A permanent telephone detail is essential.

19-25. *TEMPORARY DETAILS*.—Commanding officers concerned will furnish such temporary details as are necessary to expedite the firing. Upon receiving the target assignment from the range officer, the officer in charge of the firing party will divide his detachment into relays. Two relays go to the pits, one relay does the scoring, and remaining relays successively go on the firing line. One relay may be employed as coaches on the firing line in the absence of a sufficient number of regular coaches. When one or more relays have fired, details are rotated until all have fired. This system serves to keep the targets and men fully occupied. Officers who are firing may be grouped or distributed at the discretion of the officer in charge of the firing party. The relays will be organized with a leading man in charge of each to march them to and from the pits and supervise their work in the pits.

19-26. *RESPONSIBILITY OF OFFICERS*.—Officers in charge of firing parties are responsible for the equipment of their units with the necessary arms, ammunition, field glasses, etc.; for the organization, administration, discipline, and instruction of their units; and for carrying out the safety precautions. They should report to the range officer upon arrival at the range, obtain the target assignments from him, and deal with him in all matters pertaining to his province as range officer.

19-27. *ORDER OF PROCEDURE*.—There are two phases of the range work—first, range instruction, and second, record practice. Range instruction is carried out until a sufficient number of men are ready for record practice when the record firing is carried out.

19-28. *GENERAL RULES*.—The following general rules will be enforced:

(1) No sighting shots will be allowed. Instruction shots fired by an officer or coach will be permitted in instruction practice only.

(2) In slow fire if the target is withdrawn from the firing position just as the shot is fired, the shot will not be considered and another will be fired.

(3) All shots fired by the firer after he has taken his place on the point, the target being ready, will be counted even though the discharge may have been accidental.

(4) Shots fired on the wrong target will be entered upon the score of the firer as misses.

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(5) When a target has more than the authorized number of shots in rapid or timed fire, the man or men firing on that target must repeat the string, except when all hits have the same value, in which case this value of a hit will be given for each shot fired.

(6) In all firing, except team matches, men will fire singly and not in pairs.

(7) The value of a shot will be indicated to the firing point as follows: A five, with a white disk; a four, with a red disk; a three, with a black and white disk; a two, with a black disk; a miss by waving the danger flag across the target; a ricochet hit, by displaying the disk and danger flag at the same time. Ricochet hits shall be scored as misses.

(8) The limiting line of each division of the target is the outer edge of the line separating it from the exterior division. Whenever this line is touched by a shot it will be signaled and recorded as a hit on the higher division.

(9) In slow fire if two shots strike the target at about the same time, the firer will be awarded the shot of highest value.

(10) In all record firing a commissioned or warrant officer will be detailed as chief pit officer. A pit record of scores will be kept under his supervision. The score will also be kept at the firing point and the firing line record will control.

(11) In record firing additional pit officers or, at least, chief petty officers will be assigned at the rate of one for every four targets. They will carefully supervise the scoring and keeping of the pit record. The pit record does not show the man's name, but it does show the date, the number of the target, and the order of the firing (relay). The record at the firing point will show the date, the man's name, the number of the target, and the order of the relay.

(12) In record practice officers and men in the pit should not know who is firing on any particular target. This may be easily accomplished without confusion as follows: Make up the assignments of targets, relays, and firers in advance. Assign the pit detail for duty for the full day or half day. When the targets are ready for firing announce a "key number" to be added by each man to the number of the target to which he is assigned. Have the firers shift to the new number resulting from adding the key number to the original assignment. Thus, assume 10 targets are available and the key number is announced as 3. No. 1 shifts to No. 4 and No. 10 to No. 3. The firing then begins.

(13) In all slow firing spotters will be used. They will not be used in record rapid fire or timed fire. The disks will be placed over

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the center of the shot holes to indicate the value and location of the hits.

(14) When the pit score shows that a man has completed his record score the target will be placed at half-mast as a signal to the firing point. It will not be again run up until the order is received from the firing point to commence a new string.

(15) In record practice an officer in the pits will verify every miss before it is signaled and will closely observe the marking of his targets to prevent errors or fraud on the part of markers.

(16) In slow fire the hits will be spotted and marked after each shot. In rapid fire and timed fire the hits will be disked at the end of each string, marking the highest values first.

(17) In scoring rifle fire the scorer will sing out the name of the firer and the results, in order that the firer can check the scoring. Thus, in slow fire he will announce: "Seaman Blank, first shot for record a five"; in rapid fire, "Seaman Blank, five fives, two fours, a three, a two, and a miss."

(18) In scoring pistol fire the name of the firer will not be used, but instead the number of the target will be announced. This is to avoid men in the pits knowing the name of the competitor.

(19) If at rapid fire a man fails to fire at all, he will be given another opportunity. If he fires any shots, his score will stand. If the rifle or pistol becomes disabled through no fault of his own, he will be given another chance to fire, but the breaking of the clip in loading will not entitle him to another chance. If there is a misfire with the rifle in slow fire or in a string of rapid fire, another attempt to fire shall be made, after cocking the rifle by pulling back the cocking piece without lifting the bolt handle. If it fails to fire on this second attempt another shot shall be given at slow fire or another string at rapid fire. If a misfire occurs with a pistol another shot at slow fire or another string of rapid or timed fire shall be allowed without further attempt to fire the defective round.

(20) When stationary targets are used for pistol firing, the officer in charge of the firing line shall himself closely examine the targets on record firing and ascertain the scores made, if another officer is not assigned to perform these duties. If the officer in charge of the firing line fires for record, his performance must be observed and score marked by another officer.

19-29. *PROCEDURE IN THE PITS FOR RAPID AND TIMED FIRE.*—In this class of fire the time is regulated in the pits by the chief pit officer. The targets being ready, they are half masted

PROCEDURE ON THE FIRING LINE FOR RAPID AND TIMED FIRE

and the danger flag is displayed at the center target. When word is received from the firing line, **"ready on the firing line,"** the flag is waved and lowered. Five seconds thereafter the targets are run up simultaneously, being fully exposed for the time allotted that range. The chief pit officer gives the commands, **"stand by, up—stand by, down,"** to make certain that the movement of the targets is simultaneous. When the targets are down they are examined, the pit record entered, and the targets run up and marked. They are then pulled down, the shot holes pasted, and the target made ready for further firing.

19-30. *PROCEDURE ON THE FIRING LINE FOR RAPID AND TIMED FIRE.*—As soon as a set of targets is marked the officer in charge on the firing line commands, **"blank relay on the line—load, and lock":** When the **"ready in the pits"** signal appears, the commands, **"ready on the right—ready on the left"** are given. If any man is not ready he reports. When all are ready the command, **"ready on the firing line"** is given and is transmitted by telephone to the pits. At the command, **"ready on the firing line"** pieces are unlocked and the position of **ready** assumed. As soon as the targets start up the firer takes the prescribed position, except at 500 yards, in which case he is already in position, and fires or attempts to fire the prescribed number of shots. As soon as the targets are withdrawn the officer in charge commands: **Unload.** All unfired cartridges are removed from the piece and the bolts or slides are left open. Men remain in position on the firing line until they are ordered off by the officer in charge.

19-31. *TELEPHONES.*—One telephone to a group of from 10 to 15 targets is sufficient. In general, overhead wiring is more satisfactory, since trouble can be located and corrected better than with the underground system. Messages to the pits should be brief and explicit. If a target is to be pulled and marked, say **"Mark No. -----"** If it is to be pulled and reexamined, having been pulled once, say **"Reexamine No. -----"** When a hit is to be disked or disked a second time without pulling the target, say **"Disk"** or **"Redisk No. -----"** Irritating messages to the pits only result in poorer service. If a certain target gives consistently bad service, the proper procedure is to call the one in charge of the markers to the telephone and report the circumstances.

19-32. *RECORD FIRING.*—Record firing will take place in accordance with the rules laid down in this section. An officer or man may fire any particular course for qualification but once in one small-

COURSES TO BE FIRED

arms year, unless he fails to qualify. In that event one additional record firing may be permitted, provided his ammunition allowance is not exceeded. An officer or man who qualifies on the authorized firing of the marksman's course is given an opportunity to fire the combined sharpshooter's and expert's course for qualification and medal. Once a record firing is commenced it must be completed the same day. An uncompleted record firing will be counted as the authorized record firing unless the firer is incapacitated by illness. The object of record practice is twofold; first, to afford a measure of the proficiency of the individual; and, second, to afford an opportunity to qualify for medals. All men must fire under the same rules, and precautions must be taken to avoid unfairness. An officer or man who is transferred subsequent to qualifying will retain the qualification attained.

19-33. *SCORING*.—Scores should be marked on a scoreboard behind each firing point, in plain view of everyone. No score should be erased until it is necessary to do so. Before erasure, the total for each range and class of fire will be recorded by the officer in charge of the firing line on a rough copy of Small-Arms Sheet 2. As soon as the pit records are available, he compares them with firing line records, investigates and adjusts discrepancies, and announces the standings and qualifications. This announcement should be made immediately after the close of the firing and before the men have left the range. When he has recorded the results from the blackboards, he indicates this fact by drawing a line through the recorded portion. The record of shots, except the total for that stage, may then be erased. The record of the scores for the small-arms year shall be retained by commanding officers, subject to call from the Chief of Naval Operations, until the close of the following small-arms year. See Section V for detailed instructions relative to manner of keeping the records.

SECTION IV

COMPETITIONS AND AWARDS

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19-34. *QUALIFICATION MEDALS.*—*a. Expert rifleman medal.*—

One expert rifleman medal will be awarded to each officer or enlisted man who qualifies as an expert rifleman under rules in effect since July 1, 1931. Only one such medal will be awarded to any individual. Requests for medals should be submitted by the commanding officer to the Chief of Naval Operations (Division of Fleet Training) after each period of firing. The request should give full name, rank or rate and in the case of enlisted men the service number, of persons for whom medals are requested. It will be accompanied by a signed copy of Small Arms Sheet 2. Medals should not be requested for men who have received them by previous qualification. Individuals to whom expert rifleman medals have been awarded under rules in effect prior to July 1, 1931, may submit a request to the Chief of Naval Operations (Division of Fleet Training) for permission to replace such medals at their own expense with the present type of medal. This request should contain information as to the date, place, and score made on qualification and the name of the ship or station to which attached. The same procedure may be followed in case of a

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lost medal. The Chief of Naval Operations will award medals to Navy personnel for qualification in Navy courses only. Marine Corps personnel will be awarded marksmanship badges for qualification over the Marine Corps courses only as prescribed by the Major General Commandant.

b. Expert pistol shot medal.—The provisions of subparagraph *a*, above, also apply to the award of the expert pistol shot medal.

19-35. *OBJECT OF COMPETITIONS.*—The object of small-arms competitions is to furnish commanding officers a means of stimulating interest in rifle and pistol shooting. The primary requisite of all competitions is the element of fairness, and to this end it is essential that organizations of approximately equal strength compete. In arranging the competitions commanding officers should be guided by this principle of approximate strength of the organizations competing. In force matches, the force commander may designate a group of smaller vessels, such as a destroyer squadron, as an equivalent of the largest type of vessel competing, such as a battleship.

19-36. *PRIZE MONEY.*—Prize money is paid to enlisted men of the Navy and to enlisted men of the Marine Corps. Prizes are awarded to the members of certain winning teams as announced annually by the Navy Department. Prizes should be paid without delay as soon as the official results of the competitions are available. Commanding officers are authorized to direct the payment of the prizes to which men are entitled. The letter directing the payment will list the men's names, rates, service numbers, divisions, kind of prize and value thereof. Prize money for enlisted men of the Navy shall be charged to the appropriation "Pay, Subsistence, and Transportation of Naval Personnel"; for enlisted men of the Marine Corps to "Pay, Marine Corps." The values of the prizes awarded for the various competitions will be announced annually by the Navy Department. The limitation of funds available for the payment of prizes makes it necessary to limit the number of competitions for which prizes are authorized. This should not, however, be considered as a limitation on the number, or kind, of competitions which may be held. On the contrary, opportunities to hold competitions should be sought as competition is of itself a great incentive for the men to become proficient in the use of the service small arms. Prize money will be paid only to those teams which make an average score per competitor, equal to the score required for qualification as expert. No prize money is paid to officers.

COMPETITION RULES

19-37. *COMPETITION RULES*.—The following rules are applicable to all competitions in which all competing teams are from the U. S. Navy. The conduct of the range during competitions shall be as prescribed in Section III except as modified by the rules for the competition.

a. The chief range officer of the competition is charged with the conduct of the competitions. On questions of procedure or interpretation of the rules the decision of the chief range officer is final, except that a written protest corroborating an oral one made during the match will be considered by the officer ordering the match after the range officer has commented on such protest. The chief range officer of the competition for the force or fleet matches will be designated by the force or fleet commander. For intership or interdivision competitions where teams from two or more ships compete, the senior commanding officer of the ships competing will designate the chief range officer. For interdivision competitions where all teams are from the same ship, the commanding officer of the ship will designate the chief range officer.

b. In special competitions arranged by mutual agreement with teams outside the U. S. Navy, variations from the rules herein prescribed are permitted but these variations should be reduced to writing before the competition and each team furnished with a copy of the changes agreed upon. None of the trophies, awards, or prize money allowed under these rules will be awarded as a result of such special competitions.

c. In all competitions the commanding officer of the organization from which the team is selected will certify as to the eligibility of the team members.

d. In all team competitions coaching is permitted. Any member of the team may act as coach on the firing line. Coaching from behind the firing line will not be permitted. The coach may be changed at the discretion of the team captain but must be withdrawn from the line while the change is being effected. Coaches and members on the firing line will occupy their normal positions and will not so dispose themselves as to shield the firer from the effects of the wind, light, or weather. In addition to the team coach, each pair that is firing may have not more than one coach on the line with them.

e. In all rifle team competitions the competitors on each team fire in pairs, the members of the pair firing alternately and the man on the right firing first.

f. In all pistol competitions the competitors fire singly.

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g. In all competitions the markers and officials in the pit shall be kept in ignorance of the identity of the competitor or the team firing at any particular target.

h. In rifle competitions the use of pads or gloves to protect the firer will be permitted but only when such pads or gloves do not afford an artificial support.

i. In rifle competitions the competitors are allowed the use of a micrometer or vernier for setting the sights, the use of a telescope or binocular, and the use of a score book.

j. In all competitions the competitors are permitted to blacken the sights, but the use of special sunshades on the sights is prohibited.

k. In pistol competitions the competitor is allowed the use of adhesive tape or other protection on the hand, or the use of a glove provided that the protective device does not afford any artificial support.

l. In all competition the time allowance for slow fire shall be at the rate of one minute per shot plus three minutes for each change of pairs or competitors on the firing line. The time allowed for a team is the total time computed as above. In team competition the times of the individual shots or the times for the individual competitors need not be recorded. It is only necessary that the whole team complete its firing within the total allowed time.

m. Additional time may be allowed for slow target service or for interruptions. Claim for additional time must be made to the range officer as soon as the interruption occurs or in sufficient time for the range officer to personally note the condition for which the claim is made. Claims made only at the expiration of the time allowance will not be allowed.

n. Shots fired after the expiration of the time allowance will be recorded but will be "ringed" and will not be recorded on the official score card unless the additional time allowance is granted.

o. Scores shall be recorded both in the pit and on the firing line. The firing line record shall be the official record for the competition. On the firing line, scores shall be recorded on a scoreboard as soon as the values of the shots are signaled. The record shall be visible to the competitors. The team captain shall initial the official score card after the scores are entered.

p. Competitors must call attention to any errors of scoring as they occur. The value of any shot signaled or recorded on the board may be challenged, provided that no subsequent shot is fired at the target before the challenge is made. If a subsequent shot has been fired the challenge will not be allowed.

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g. The service rifle, service pistol, and service ammunition as defined in paragraphs 19-4 and 19-6 shall be used. No rifles, pistols, or ammunition especially selected for accuracy at the place of manufacture will be permitted to be used.

r. Trigger pulls will be tested on the firing line and must be not less than three (3) pounds for the rifle and four (4) pounds for the pistol.

s. The officer ordering the match will designate the ammunition to be used in the match. This designation should be made at least 10 days prior to the date set for the match in order that all teams may have an opportunity to sight in with the ammunition designated.

t. The ammunition used in the match will be served out to competitors on the firing line. Any competitor having other ammunition in his possession on the firing line will be disqualified, and his score will not be counted.

u. In rifle competitions standard positions only may be used. These are defined as follows:

(1) *Standing*.—Firer stands erect on both feet, rifle supported by hands and shoulder of the firer, without body or artificial rest. Both elbows must be clear of the body. The use of the sling is not permitted.

(2) *Sitting*.—Firer's body is supported by both feet and the buttocks. No other portion of the body may rest on the ground. The use of the sling is permitted when adjusted as described in paragraph 19-93.

(3) *Prone*.—Lower part of body rests on the ground. Firer's head is toward the target, and upper part of the body is supported by the elbows, which rest on the ground. No part of either arm below the elbow shall rest on the ground. No artificial support is permitted. The sling is permitted when adjusted as described in paragraph 19-93.

v. In pistol competitions the standing position only shall be used. No artificial support is permitted and only one hand may be used in supporting the pistol.

w. All teams shall designate two alternates on the Commanding Officer's certificate of eligibility. In case of injury to a member of a team during the competition firing, an alternate may be substituted to continue the firing from and including the range on which the principal was injured, provided such substitution is authorized by the chief range officer. However, once having been so substituted, the alternate must finish the match unless he also is injured.

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x. Ties in rifle competitions are decided in favor of the team or individual:

(1) Having the highest aggregate score at 500 yards rapid fire or if tied there then at the next stage taking the stages in order: 200 yards rapid fire, sitting from standing; 200 yards rapid fire, prone from standing; 500 yards slow fire; 200 yards slow fire, standing; 200 yards rapid fire, marksman's course; 200 yards slow fire, sitting; 200 yards slow fire, prone. If still tied then by:

(2) Having the fewest misses in all classes of fire or the fewest number of shots of lowest value, etc.

(3) Having the fewest misses, shots of lowest value, etc., in the various stages considered in the order given above.

(4) Having the first shot of higher value when the slow fire shots are considered in the inverse order in which they are fired.

y. Ties in pistol competition are decided in favor of the team or individual:

(1) Having the highest aggregate score at the following stages taken in order: Rapid fire; 50 yards timed fire; 25 yards timed fire; slow fire. If still tied then by:

(2) Having the fewest misses in all classes of fire or the fewest number of shots of lowest value, etc.

(3) Having the fewest misses, shots of lowest value, etc., in the various stages considered in the order given above.

(4) Having the first shot of higher value when the slow fire shots are considered in the inverse order in which they are fired.

19-38. *INTERDIVISION COMPETITIONS.*—The members of any one team in these competitions must be from the same ship's division. Each ship may conduct one interdivision rifle and one interdivision pistol competition for prize money each small-arms year. Each division may enter one rifle and one pistol team. In competitions for which prize money is authorized there shall be eight firing members on each rifle team and four firing members on each pistol team. The rifle course fired shall be the sharpshooter-expert course. The pistol course fired shall be the qualification course. Provided the ammunition allowance is not exceeded there is no limitation on the number of interdivision competitions which do not involve prize money.

19-39. *INTERSHIP COMPETITIONS.*—The members of any one team in these competitions must be from the same ship. Each ship may enter one team in one intership rifle competition and one intership pistol competition for prize money in each small-arms year.

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In competitions for which prize money is authorized there shall be eight firing members on each rifle team and four firing members on each pistol team. The rifle course fired shall be the sharpshooter-expert course. The pistol course fired shall be the qualification course. Not less than six of the firing members of each rifle team which competes for prize money in any intership competition shall be enlisted men and not more than two of the firing members of such a rifle team may be from the Marine Corps. All of the firing members of each pistol team which competes for prize money in an intership competition shall be enlisted men and not more than one of the firing members of such a team may be a Marine. Intership competitions may include an officers' pistol match, although prize money therefor is not authorized. Each of the four firing members of an officers' pistol team shall be a commissioned or warrant officer, and not more than one of the firing members of such a team may be a Marine officer. Provided the ammunition allowance is not exceeded there is no limitation on the number of intership competitions which do not involve prize money.

19-40. *FORCE MATCHES*.—The Battle Force, the Scouting Force and the Asiatic Fleet are each authorized to hold annually one force rifle match, one force pistol match and one officers' force pistol match. The force matches are intership competitions and each ship of each of the above forces is entitled to enter one team in each of the three force matches of that force in addition to the teams entered in the intership competitions described in paragraph 19-39. With the restriction that the minimum number of teams competing in any force match can not be less than four, the force commander may designate the time and place for conducting the force matches for his command.

19-41. *FORCE RIFLE MATCH*.—*a*. One team captain and one team coach shall be designated for each team. There shall be eight firing members on each team. Either or both the team captain and the coach may also be firing members.

b. Not less than six of the firing members of each team shall be enlisted men.

c. Not more than two firing members of each team may be from the Marine Corps.

d. Not less than three of the firing members of each team shall be enlisted men who are on their first enlistment and who have not competed in any fleet or force rifle match prior to the gunnery year in which the match is fired.

e. The course fired shall be the rifle sharpshooter-expert course.

f. The rules prescribed in paragraph 19-37 will apply.

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19-42. *FORCE PISTOL MATCH*.—*a*. One team captain and one team coach shall be designated for each team. There shall be four firing members on each team. Either or both the team captain and the coach may also be firing members.

b. All firing members must be enlisted men and not more than one Marine may fire on each team.

c. Not less than two members of each team must be men on their first enlistment and who have never competed in any fleet or force pistol match prior to the gunnery year in which the match is fired.

d. The course fired shall be the pistol qualification course.

e. The rules prescribed in paragraph 19-37 will apply.

19-43. *OFFICERS' FORCE PISTOL MATCH*.—*a*. One team captain and one team coach shall be designated for each team. Either the team captain or team coach may, if otherwise qualified, act as firing members.

b. Each team shall consist of four officer-firing members.

c. Not more than one firing member may be a Marine officer.

d. Not less than two firing members must be officers who have not competed in any fleet or force pistol match prior to the gunnery year in which the match is fired.

e. The course fired shall be the pistol qualification course.

f. The rules prescribed in paragraph 19-37 will apply.

19-44. *FORCE TROPHIES*.—In the Battle Force, in the Scouting Force, and in the Asiatic Fleet, a force trophy will be awarded to the team making the highest aggregate score in each of the force rifle match and the force pistol match; provided that not less than four teams must compete in any competition for which a force trophy is awarded. No trophies are awarded for officers' force pistol matches. The force trophies will be transferred upon the completion of the matches for which they are awarded. The name of the winning vessel will be engraved on the trophy as soon as practicable after its receipt on board, and the cost of the engraving will be charged to the appropriation "Training, Education and Welfare, Fleet Training" for the current fiscal year. The Navy Department shall be promptly informed of the amount expended for such engraving. Trophies will be retained by the winning ship until 30 days prior to the next matches of that force when they will be returned to the force commander for award in the coming matches.

19-45. *UNITED STATES FLEET MATCHES*.—The Commander-in-Chief, United States Fleet, is authorized to conduct annually one United States Fleet rifle match, one United States Fleet pistol match, and one United States Fleet officers' pistol match. These

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matches are competitions among the Battle Force, the Scouting Force, the Submarine Force, the Base Force and the Atlantic Squadron. Each of those units will enter but one team in each of the three matches of the United States Fleet. Although a match may be held with but two competing teams, it is desirable that as many as practicable of the above units participate. Each team will be formed entirely of personnel from the force represented. Composition of teams and rules governing the fleet matches will be as prescribed in paragraphs 19-37; 19-41; 19-42; and 19-43.

19-46. *FLEET TROPHIES*.—A fleet trophy will be awarded to the team making the highest aggregate score in each of the fleet rifle match and the fleet pistol match. No trophy is awarded for the officers' fleet pistol match. The fleet trophies will be transferred upon the completion of the matches for which they are awarded to the flagship of the winning force. The name of the winning force will be engraved on the trophy as soon as practicable after its receipt and the cost of the engraving will be charged to the appropriation "Training, Education and Welfare, Fleet Training" for the current fiscal year. The Navy Department shall be promptly informed of the amount expended for such engraving. Trophies will be retained by the winning force until 30 days prior to the next fleet matches when they will be returned to the Commander-in-Chief for award in the coming matches.

19-47. *TEAM MEDALS*.—A suitably engraved medal may be awarded by the officer ordering the match to each firing member of the winning team in each of the fleet and force rifle and pistol matches. The medal so awarded becomes the property of the competitor to whom awarded. These medals must not be confused with the place medals described in paragraph 19-48, which are awarded for individual standing.

19-48. *PLACE MEDALS*.—*a*. Suitably engraved medals shall be awarded by the officer ordering the matches to the leading individuals for places in each of the fleet and force matches. Competitors shall be ranked in the order of their individual aggregate scores. The number of medals awarded shall be in the following proportions:

Fleet rifle match.—A total number of medals equal to twice the number of competing teams.

Fleet pistol match and officers' fleet pistol match.—A total number of medals equal to the number of competing teams.

Force rifle match.—A total number of medals equal to one for each 12 competitors, plus one medal for a remainder greater than 7 competitors.

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Force pistol match and officers' force pistol match.—A total number of medals equal to one for each 8 competitors.

b. No place medal shall be awarded to any competitor making an aggregate score of less than 230 with the rifle or 260 with the pistol.

c. Place medals must not be confused with the team medals described in paragraph 19-47, which are awarded to members of winning teams.

19-49. *FLEET RIFLEMAN.*—A suitably engraved gold badge is awarded to officers or enlisted men of the Navy who are designated as fleet riflemen by the Chief of Naval Operations (Director of Fleet Training). The designation as fleet rifleman will be made only upon receipt of an individual written application from those officers or men, in the active naval service, who have the qualifications herein specified. The qualifications for a fleet rifleman are:

a. The applicant must have qualified as an expert rifleman during the small-arms year in which the application is submitted.

b. The applicant must have won three place medals (par. 19-48) in either a force rifle match or a fleet rifle match, all of which must have been won subsequent to July 1, 1929, and one of which must have been won subsequent to July 1, 1935.

19-50. *FLEET PISTOL SHOT.*—A suitably engraved gold badge is awarded to officers or enlisted men of the Navy who are designated as fleet pistol shots by the Chief of Naval Operations (Director of Fleet Training). The designation as fleet pistol shot will be made only upon receipt of an individual written application from those officers or men, in the active naval service, who have the qualifications herein specified. The qualifications for a fleet pistol shot are:

a. The applicant must have qualified as an expert pistol shot during the small-arms year in which the application is submitted.

b. The applicant must have won three place medals (par. 19-48) in either a force pistol match, a fleet pistol match, an officers' force pistol match, or an officers' fleet pistol match, all of which must have been won subsequent to July 1, 1929, and one of which must have been won subsequent to July 1, 1935.

19-51. *DISTINGUISHED MARKSMAN.*—A gold badge is awarded to officers or enlisted men of the Navy who are designated as distinguished marksmen by the Chief of Naval Operations (Director of Fleet Training). The designation as distinguished marksman will be made only upon receipt of an individual written application from those officers or men, in the active naval service, who

DISTINGUISHED PISTOL SHOT

have the qualifications herein specified. The qualifications for a distinguished marksman are:

a. The necessary credits must have been obtained while the applicant was on the active list of the Navy, and the applicant must have qualified as an expert rifleman during the small-arms year in which the application is submitted.

b. The applicant must have won three medals in either or both of the national rifle matches, namely, the national rifle team match and the national individual rifle match; or

c. Having won any two of the above medals, must have won, subsequent to 1929, a medal for place in either a force rifle match (par. 19-41) or in a fleet rifle match (par. 19-45).

d. These rules shall not be interpreted so as to deprive any officer or man of a designation as distinguished marksman which he may have attained under previous rules.

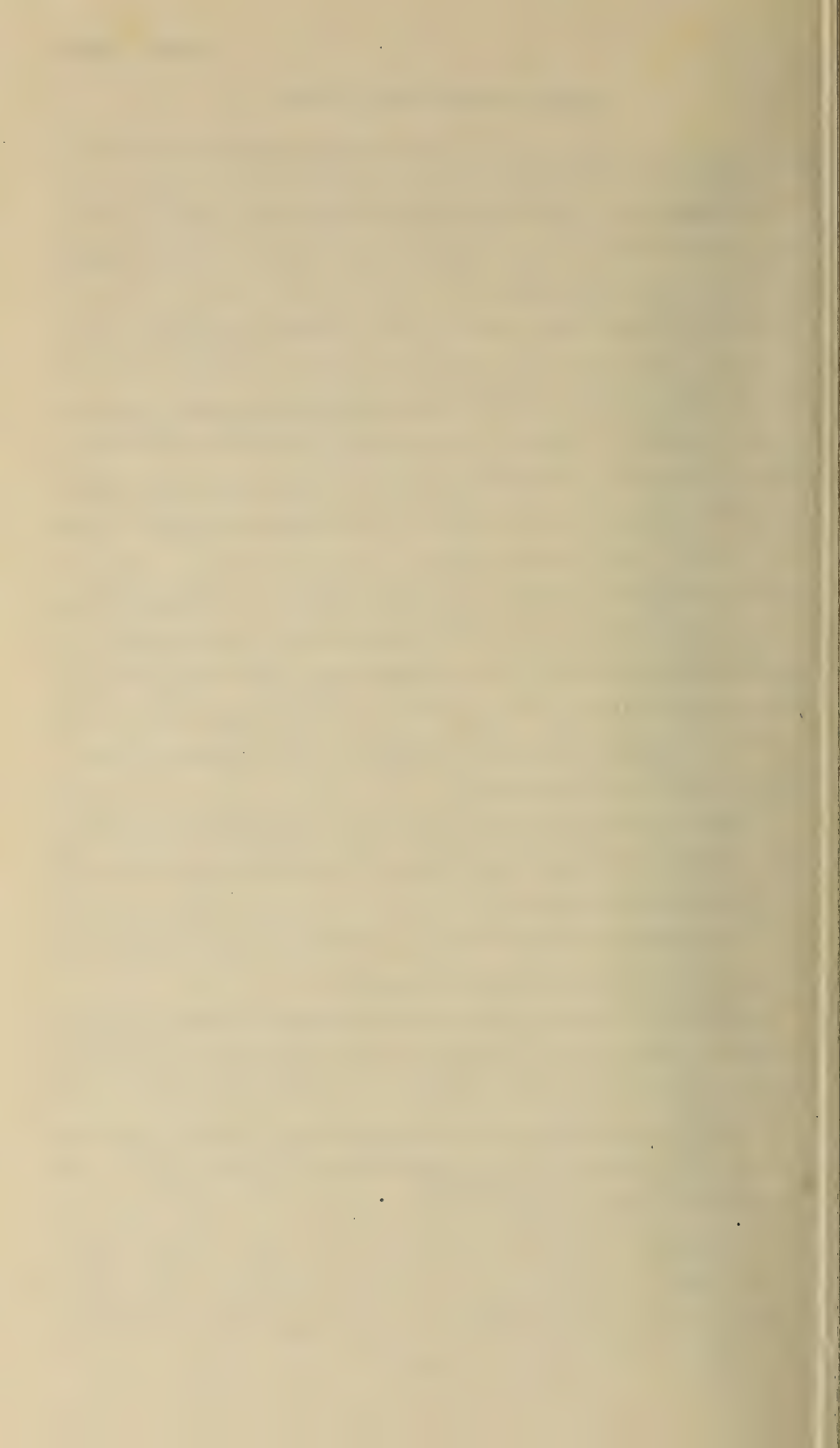
19-52. *DISTINGUISHED PISTOL SHOT.*—A gold badge is awarded to officers and enlisted men of the Navy who are designated as distinguished pistol shots by the Chief of Naval Operations (Director of Fleet Training). The designation as a distinguished pistol shot is made only upon the receipt of an individual written application from those officers or men in the active naval service who have the qualifications herein specified. The qualifications for a distinguished pistol shot are:

a. The necessary credits must have been obtained while the applicant was on the active list of the Navy and the applicant must have qualified as expert pistol shot during the small-arms year in which the application is submitted.

b. The applicant must have won three medals in either or both of the national pistol matches, namely, the national pistol team match and the national individual pistol match; or

c. Having won any two of the above medals, must have won, subsequent to 1929, a medal for place in either a force or a fleet pistol match or an officers' force or fleet pistol match (pars. 19-42; 19-43; and 19-45).

d. These rules shall not be interpreted so as to deprive any officer or man of a designation as distinguished pistol shot which he may have attained under previous rules.



SECTION V

REPORTS, RECORDS, AND FORMS

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19-53. *ANNUAL REPORT*.—The annual report shall be submitted in duplicate immediately upon completion of the small-arms year. The report shall consist of Small-Arms Sheet 1; Small-Arms Sheet 2 made out for all officers and men who qualified as expert during the year; and Small-Arms Sheet 3, all forwarded as enclosures to a letter which shall, in addition, cover the following points:

a. Request for the issue of such medals for qualification as have not previously been requested.

b. Comment on methods of training, dates and places of firing, and any other items of interest in connection with small-arms firing.

c. Report of ammunition expended.

Every vessel in commission in a fully operative status and those shore organizations, enumerated in paragraphs 19-10 and 19-11, which conduct small-arms training, shall submit the annual report or in lieu thereof the report required by paragraph 19-10. Reports of Navy small-arms practices fired by Marine detachments afloat will be submitted as a part of the ships' reports, and an additional copy will be furnished the Major General Commandant.

19-54. *REPORT OF PRIZE MONEY COMPETITIONS*.—Immediately upon the completion of a competition in which prize money is awarded, a report in dispatch form shall be made by the officer ordering the competition to the Chief of Naval Operations giving the amount expended in prizes and the class of competition in which awarded. A report by mail shall also be submitted on Small-Arms Sheet 3 immediately upon completion of the competition.

19-55. *REPORT OF PLACE MEDALS*.—Immediately upon completion of a fleet or force small-arms competition, the Commander-in-Chief or the force commander ordering the competition shall for-

REPORTS, RECORDS, AND FORMS

ward to the Chief of Naval Operations a report in duplicate giving the following information:

Date and place of each match.

Standing and aggregate score of each team.

Standing and aggregate score of each competitor.

Name, organization, and aggregate score of each competitor to whom a place medal was awarded. (See par. 19-48.)

Since the winning of place medals forms the basis for designation as fleet rifleman and fleet pistol shot, it is important that they not be confused with the team medals mentioned in paragraph 19-47.

19-56. *PIT RECORD*.—In record practice a rough copy of the **"Report of scores"** (Small-Arms Sheet 2) will be kept in ink in the pits by the chief pit officer. This copy is known as the pit record and will be kept by relays. Names of firers will not be entered but identification will be by relay and target number. Scores are marked in the pits on blackboards, similar to those in use on the firing line, if available. They are then entered by the chief pit officer in the pit record in a manner similar to the method prescribed for the firing line. (See par. 19-33.) If blackboards are not available pit cards will be used, one for each target for each string. These will be collected by the chief pit officer and the data transferred to the pit record. (See par. 19-60 for sample pit card.)

19-57. *FIRING LINE RECORD*.—In record practice another rough copy of the **"Report of scores"** (Small-Arms Sheet 2) will be kept in ink at the firing line by the officer in charge of the firing line. This copy is known as the firing line record and will be kept by relays. Each firer will be identified by name as well as relay and target number. The data for this record is obtained from the score boards, by the officer in charge of the firing line, in the manner prescribed in paragraph 19-33. Score boards will be in the form of portable blackboards at the firing line, one for each target. (See par. 19-60 for sample form.) Scores will be checked against the pit record before announcement of qualifications and before preparation of the smooth copy of Small-Arms Sheet 2 (par. 19-58). In order that the pit record may be kept properly, the order of the relays must be maintained. If the officer in charge of the firing line fires for record his performance must be observed and score kept by another officer at the firing line, who will submit a separate report of scores (par. 19-58) in his case.

19-58. *REPORT OF SCORES*.—Instructions for use of the **"Report of scores"** (Small-Arms Sheet 2) are printed on its back. Immediately after the close of each record practice, the officer in charge

ENTRIES IN SERVICE RECORDS

of the firing line will prepare and submit to each commanding officer concerned a smooth copy typewritten or in ink (in quadruplicate) of Small-Arms Sheet 2. Each copy will be certified, in the spaces provided, by both the chief pit officer and the officer in charge of the firing line. This smooth copy is compiled from the pit record and the firing line record (pars. 19-56 and 19-57). In case of disagreement between the two records the firing line record will control.

19-59. **ENTRIES IN SERVICE RECORDS.**—Entries in service records of enlisted men are made by the commanding officer upon receipt of Small-Arms Sheet 2 (**Report of scores**). The entries should simply show the name of the ship or station, the date and the nature of the qualification. If an enlisted man fires record practice but fails to qualify, this fact should also be entered since it affects his eligibility to fire again. The record would then read:

U. S. S. *Alaska*, 3/2/38, qualified as expert rifleman (or as the case may be).

(Signature)

or

U. S. S. *Alaska*, 3/2/38, unqualified at record rifle (pistol) practice.

(Signature)

19-60. **FORMS.**—Samples of score board, pit card, and Small-Arms Sheets 1, 2, and 3 follow herewith:

SCORE BOARD
Target No. —

Name and relay	Shot No.											Course						Total
	1	2	3	4	5	6	7	8	9	10	Total	Slow fire			Rapid fire			
												200	200	500	200	200	500	
1-----																		
2-----																		
3-----																		
4-----																		
5-----																		

PIT CARD

Target No.	Shot No.										Total	Relay	Range and kind of fire
	1	2	3	4	5	6	7	8	9	10			

NOTE.—The pit card is not furnished by the Department.

U. S. N., Pit Officer.

REPORTS, RECORDS, AND FORMS

Small Arms—Sheet 1 (Revised)
(2 copies required by Department)

U. S. S. _____,
_____ 19__

From: Commanding Officer.
To: Chief of Naval Operations (Director of Fleet Training).
Subject: Annual Report of Small-arms Practice.

1. The following are the results attained by this vessel for the Small-arms year ending June 30, 19__.

Table of officers and men who fired, with qualifications

Number firing (A)	Qualified as—	Number (B)	Percent: (B) divided by (A)
	Expert rifleman.....		
	Sharpshooter.....		
	Marksman.....		
	Unqualified.....		
	Pistol expert.....		
	Pistol sharpshooter.....		
	Pistol marksman.....		
	Unqualified.....		
	With .22 cal. rifle.....		
	With .22 cal. pistol.....		
	With machine gun.....		
	With automatic rifle.....		

NOTE 1.—Under “number firing (A)” enter the total number who fired the prescribed course with the .30 caliber rifle, .45 caliber pistol, .22 caliber rifle, .22 caliber pistol, the machine gun or the automatic rifle.
NOTE 2.—In column (B) opposite “Unqualified,” enter the number who fired for record and failed to attain the minimum qualification.

Authorized allowance _____ Officers _____ Enlisted.
Landing Force Complement _____ Officers _____ Enlisted.

(Signature) _____
Commanding.

REPORTS, RECORDS, AND FORMS

INSTRUCTIONS

1. This Report of Scores is to be kept both on the firing line by the officer in charge of the firing line and in the pit by the chief pit officer.

2. The Report of Scores is designed for Courses A and B. If other courses are fired, it should be modified accordingly.

3. Data for the Report of Scores are obtained from two sources, viz:

(a) From the score boards on the firing line by the officer in charge of the firing line, who enters the name of the officer or man firing in the space opposite the number of the target on which such officer or man fired.

(b) From the score boards or pit cards in the pit by the chief pit officer who enters the score made on a target in the space opposite the number of the target.

The record kept on the firing line is the official record. The relay number shall always be entered on the Report of Scores. All entries on the Report of Scores shall be typewritten or in ink. It is desirable to group men from the same division or ship together on one sheet. If this is not done, the firer's ship and division should be shown with his name.

4. At the close of the firing the officer in charge of the firing line announces the results to the firers before they leave the range. He then transmits a smooth copy of the Report of Scores, free from erasures and interlineations to the commanding officer concerned. This smooth copy shall be appropriately certified by the chief pit officer and the officer in charge of the firing line.

5. This report is to be kept by commanding officers until the close of the small-arms year following.

6. Use abbreviations as follows: E, Expert; S, Sharpshooter; M, Marksman; U, Unqualified.

7. If pit cards are used, they may be sent to the firing line in place of the Report of Scores; but the Report of Scores must be kept, as it constitutes the official record.

8. The Report of Scores is designed to be kept in suitable binders. Copies of the form will be furnished on application by letter to the Chief of Naval Operations (Division of Fleet Training).

9. One signed copy of Sheet 2 will accompany all requests for medals for qualifications when such requests are submitted separate from the annual report.

10. Two copies of Sheet 2 for all officers and men who qualified as experts during the year shall be submitted with the annual report.

SECTION VI

SMALL ARMS INSTRUCTION—GENERAL

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19-61. *PROCESS OF SLOW FIRE*.—The process of firing slow fire with any form of small arm consists of the performance of three simple mechanical operations:

(1) Aligning the sights with each other and with the point of aim.

(2) Holding the arm so that the sights remain in correct alignment while the trigger is being squeezed.

(3) Squeezing the trigger in such a manner as not to disturb the sight alignment before the piece is fired.

While these are three distinct operations, it must be understood that they are not separated in time, but are performed concurrently. Thus, the operation of holding must be begun as soon as the operation of aligning the sights. While it is possible to delay the beginning of the operation of squeezing the trigger until after the sight alignment is completed, to do so will cause an unnecessary increase in the time and the effort required to fire the shot. It is preferable to start squeezing the trigger before the aim is complete, so that there is a very considerable pressure on the trigger by the time the sights are correctly aligned. This practice also serves to motivate the trigger finger and to prevent freezing, a condition in which the aim and hold are good but the action of the trigger finger is inhibited.

SMALL ARMS INSTRUCTION—GENERAL

19-62. *PROCESS OF RAPID FIRE*.—Rapid fire consists essentially of performing the same three operations as in slow fire. The operations are, however, now performed repeatedly, and without loss of time between the completion of the third operation of one shot and the beginning of the first operation of the shot to follow. No one of the three essential operations is hurried. Speed is attained by the elimination of waste motions.

19-63. *STEPS IN SMALL-ARMS INSTRUCTION*.—In teaching men to shoot, the instruction is divided into two parts:

Preparatory exercises.

Range firing.

In the preparatory exercises the men are taught the principles of good shooting and are drilled in the correct performance of the essential operations. In range firing the men are taught to apply the principles, which they have been taught, to the actual firing of ball cartridges. The combined practice effect of both the preparatory exercises and the range firing is necessary for the formation of correct shooting habits. A thorough course in the preparatory exercises *must* be completed before range firing is commenced.

19-64. *STEPS IN PREPARATORY EXERCISES*.—In the preparatory exercises each of the three essential operations is taken up in order. The men are first taught to align their sights correctly. As soon as their education has reached a point where they do this, without the operation absorbing their whole attention, they are taught the proper method of holding, and to combine holding with aiming. When they can aim and hold, without having to give these combined operations their whole attention, they are taught the proper method of squeezing the trigger, and to combine this operation with aiming and holding. Each operation is thus added to what has gone before. During the first step the men are taught to aim correctly. During the second step they are taught to hold while aiming. During the third step they are taught to squeeze the trigger while aiming and holding. During the fourth step the men are taught to manipulate the piece so as to enable them to repeat the three essential operations without loss of time between shots. The fourth, or rapid fire, step is followed by an examination, which is of sufficient importance to be considered as a step in itself. During the examination, or fifth step, the instructor assures himself that each of the men under instruction understands, and can explain in his own words, all of the points which have been covered in the instruction; and also that each man is proficient in the performance of the essential

NATURE OF RANGE FIRING

operations. No man will be permitted to proceed with the range firing until he has satisfactorily passed this examination. Instruction in safety precautions, nomenclature, care, sight changes, and use of the score book will be given, at times within the discretion of the instructor, prior to the examination of the fifth step.

19-65. *NATURE OF RANGE FIRING*.—Range firing follows immediately upon the completion of the preparatory exercises. Unless the training during the period of the preparatory exercises has been thorough, range firing will do more harm than good. Without careful preparation and supervision, instinctive bad shooting habits will be strengthened and progress rendered extremely difficult. The instruction during range firing is progressive, starting with the shortest ranges and the most steady positions. Firing is continued under the least difficult conditions until the men under instruction are capable of making good groups under those conditions. Especial care is required at this first stage of the range firing in order to overcome the natural tendency to flinch when squeezing the trigger. When the men under instruction are capable of making good groups under one set of conditions they are advanced to the next in the order of difficulty. Men who show a tendency to flinch should be returned to firing under the least difficult conditions until this tendency has been corrected. Once the habit of flinching has been definitely overcome, progress will be rapid and qualification assured.

19-66. *THOROUGH TRAINING ESSENTIAL*.—The training must be thorough and must proceed to the point where correct shooting habits are formed. Merely telling a man how to shoot is not sufficient. This could be done, to the complete understanding of anyone of average intelligence, within the space of a few minutes. The men must not only know how to shoot but must also be drilled in the actual performance of the operations of shooting until the correct performance becomes habitual. Habit formation, involving as it does the training and coordination of several groups of muscles, cannot be done in a day. Not less than two weeks of continued practice are necessary for the formation of correct shooting habits. Even this amount of practice will be found insufficient for a considerable percentage of the men under instruction. Habits once formed, however, are tenacious and will remain active over long periods of time without further practice. Training which stops short of habit formation is very largely wasted, and the effects of such incomplete training will almost entirely disappear within the space of a few months. When the training is carried to the point where the correct

shooting habits are well fixed there will be little loss of skill within the course of one year.

19-67. *DURATION OF INSTRUCTION PERIODS.*—The length of the practice period is limited by the ability of the instructor to maintain the interest and attention of the men under instruction. The monotony of repeating a simple operation in exactly the same way each time will exhaust the average attention in about 15 or 20 minutes. However, it has been found by experience that only minor changes in procedure are necessary to reawaken the interest and to sharpen the attention. By the careful introduction of such changes, the work done by each man can be varied at frequent intervals, and interest and attention sustained. With a well-laid-out schedule and with careful supervision, the practice period may be profitably extended to four hours for one period per day or two three hour periods during the same day.

19-68. *INTERVAL BETWEEN PERIODS.*—The interval between practice periods should be as short as is practicable in order that as much as possible of the effect of one practice period may be carried over to the next. The loss of practice effect is progressive throughout the interval but in something less than a direct ratio to its length. This loss must of course be made up in the succeeding period before any further gain can be made. Consideration of economy in the time spent in training requires that practice be held at least once each day during the training period and that if practicable two practice periods be held each day. Where the training period extends over the week end, at least one practice period should be held on Saturday. A training period which is to extend over the parts of two weeks should be started on Monday if practicable, as otherwise the smaller amount of training received before the week end combined with the length of that interruption will cause a disproportionally large loss in the effect of the training.

19-69. *CONTINUITY OF TRAINING.*—The training must be continuous and the range firing follow immediately after the completion of the preparatory exercises. While the manner of correct performance of the essential operations has been taught during the preparatory exercises, the habit of correct performance of these operations does not become fixed until after a week or more of practice in range firing. The training being incomplete at the end of the period of preparatory exercises, a break in the training will cause a great loss of practice effect. The time spent in preparatory exercises is thus largely wasted if these exercises are not immediately followed

AMOUNT OF PRACTICE REQUIRED

by the range firing. Range firing which is not preceded by a thorough training in the preparatory exercises is not only a waste of time and ammunition, but is actually detrimental to the men under instruction, and makes it harder to instruct them properly at any future time.

19-70. *AMOUNT OF PRACTICE REQUIRED*.—From 22 to 30 hours preparatory exercises, concentrated within the period of one week and followed immediately by one week of range firing, should produce something better than 90 percent of qualifications. This schedule requires that two practice periods be held on each week day and one period on Saturday. If conditions prevent the holding of more than one period per day, then the number of hours spent on the preparatory exercises, should be increased to about 36. Including the time on the range, the total number of practice hours required to attain 90 percent qualifications is from 60 to 75 hours. With the same time spent on preparatory exercises, two weeks of range firing should produce something better than 95 percent of qualifications. The effect of increasing the time spent on the range is more beneficial than is shown by the increased percentage of qualifications. Many men who qualify in the shorter period do so with their shooting habits still in the formative stage. Without the added effect of the increased range practice, these men would lose much of their skill prior to the next target season. Reduction of the time spent on the range to less than one week will produce a disproportionately large decrease in the percentage of qualifications.

19-71. *QUALITY OF INSTRUCTION*.—The quality of the instruction should be of the highest. No pains should be spared in requiring the men under instruction to perform the essential operations in a precise and exact manner. Men under instruction inevitably reflect the attitude of the instructor. If he evinces a lack of interest and a disposition to accept a mediocre performance, the men are certain to show the same lack of interest and to acquire slovenly habits. Excellent instruction is required to avoid waste of time and to reduce the time required for proper training. No degree of excellence in instruction, however, can reduce the time to a point below that which is necessary for habit formation.

19-72. *COACH-AND-PUPIL METHOD*.—For purposes of instruction the men work together in pairs. One man, the "firer," performs the operation in question while the other man, the "coach," watches the performance, calling attention to defects noted. After a short interval of practice, the two men will, at the direction of the in-

SMALL ARMS INSTRUCTION—GENERAL

structor, exchange places so that he who was “firer” now becomes “coach” and vice versa. The two men continue to alternate in this manner, under the direction of the instructor, until the end of the practice period. The alternation of duties so brought about serves four useful purposes:

(1) It provides the frequent slight changes in procedure which are necessary to prevent loss of interest due to monotony and fatigue.

(2) It provides constant personal supervision of the training, and prevents the formation of faulty habits by the correction of minor errors as soon as they occur.

(3) It furnishes the coach an opportunity to see the bad effects caused by faulty performance and better enables him to avoid such mistakes.

(4) It tends to develop the ability of the men as instructors.

19-73. *DIVISION INTO GROUPS*.—Men under instruction are divided into groups of convenient size, usually of eight or ten men. The landing-force squad makes a convenient group. Each group is under the direct supervision of a group instructor, who will ordinarily be a petty officer from the same division as the men under instruction. For the landing-force squad, the squad petty officer should act as the group instructor; provided, of course, that he has the necessary qualifications. The work of the pairs of the various groups must be laid out so that no one is idle during the period of instruction. Nothing is more destructive to interest and attention than standing around with nothing to do.

19-74. *GROUP INSTRUCTORS*.—The first requisite of the group instructor is that he be a petty officer or of petty officer material. He must have the ability to require a correct and whole-hearted performance of the exercises by the men of his group. Second, he must be well grounded in the essentials of good shooting and the methods of instruction. Third, he must be able to recognize good performance when he sees it and be able to analyze a poor performance so as to determine its cause. Fourth, he must be able to talk to the men of his group in such a manner as will make his meaning clear to them and to convey the conviction of the truthfulness of his statements. The ability to shoot well is not essential to the qualifications of an instructor, but will ordinarily follow from his possession of the other qualifications. The reputation of being an excellent shot is an asset to the instructor as it gives weight to his statements and inclines the men to accept them without question. This fact, however, makes it all the more important to see that all instructors, and especially those who

OFFICER IN CHARGE OF INSTRUCTION

are expert shots, thoroughly understand the prescribed methods of instruction.

19-75. OFFICER IN CHARGE OF INSTRUCTION.—The officer in charge of instruction assisted by such officer instructors as he has available will lay out the course of instruction, make allotments of time to the various steps, and assign the subjects to be taken up at each instruction period. He, with his assistants, will supervise the work of the group instructors, keeping informed of the progress of each man and making such changes in time allotment as become necessary as the training progresses. The officer in charge of instruction and his assistants will usually participate in the explanation and demonstration with which each step is opened, and give personal assistance in backward cases.

19-76. METHOD OF INSTRUCTION.—The schedule of instruction for each step is as follows:

- (1) Explanation to the assembled men under instruction.
- (2) A demonstration of the work to be covered in the step.
- (3) Exercise in the work laid out for the step.

The explanation must be carefully prepared ahead of time so that the officer giving it will know exactly what he is going to say. It must not, however, be reduced to the reading of a written lecture. The explanation should be brief and confined to the step under immediate consideration. The language should be strongly affirmative. The object of the explanation is to tell the men what they must do rather than to tell them what they should avoid. The necessity for exactness in the performance of all operations must be stressed.

The demonstration of the work for each step is made by taking one group and showing just how the exercise is carried on. The group is divided into pairs, the pairs assigned a number and a routine established by which the various pairs and the men in these pairs alternate in the performance of the exercises. The work of the group must be organized so that all men are kept busy all of the time.

The exercises are carried on by the groups, each under its own group instructor, in the same manner as has been demonstrated to them. The officer in charge and the officer instructors supervise the work of the group instructors; see that the groups are properly organized so that each man is busy; see that instructions are correctly interpreted; and that the exercises are carried on in a careful and precise manner.

19-77. SHOOTING PADS.—*a.* The use of padding on the elbows and on the shoulder is essential for men who are to be instructed

SMALL ARMS INSTRUCTION—GENERAL

in firing the rifle. For men firing the automatic rifle, the shoulder padding is not needed. For men firing the pistol the use of a small piece of surgeons plaster may be permitted in order to protect the hand from the rebound of the hammer. The use of a light glove on the left hand may be permitted to men firing the rifle. Men should be instructed in the kinds of padding to be used and should be required to have a padded uniform prepared before the instruction in positions is given. During the preparatory exercises the men under instruction are required to wear the same padding that they will use during the range firing. This is necessary in order to accustom the men to holding and manipulating the rifle when the pads are worn. If this is not done in the preparatory exercises a part of the limited time on the range will be wasted.

b. Elbow pads should be only of sufficient thickness to prevent skinning or bruising the elbows. The firer should be able to feel the ground through the pads and be able to utilize small depressions as supports for the points of the elbows. The great majority of elbow pads are entirely too thick, they form large rounded surfaces which allow the elbows to slip easily. A suitable pad may be made from a piece of sheep skin from which the wool has been clipped to within one-quarter of an inch of the skin. Soft wash leather together with one thickness of bath toweling also makes a suitable elbow pad.

c. Shoulder pads should not be too thick. Two or three thicknesses of bath toweling are sufficient. If sheep skin is used, the wool should be clipped to within about one-half of an inch from the skin. When the shoulder pad is too thick the distance from the shoulder to the bolt handle is increased, causing difficulty in manipulating the bolt in rapid fire.

SECTION VII

NOMENCLATURE, CARE, AND SAFETY PRECAUTIONS—RIFLE

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19-78. *NOMENCLATURE*.—*a*. Instruction in nomenclature starts with the demonstration of the rifle itself to the assembled groups under instruction. At this time the following parts should be pointed out and the functions of each explained: Stock, butt, breech, hand guard, upper and lower bands, barrel, muzzle, bore, front sight, rear sight, sight leaf, leaf slide, sight graduation, wind gauge, windage screw, cut-off, extractor, ejector, cocking piece, main spring, firing pin, striker, cocking cams, safety lock, sear, trigger, trigger guard, guard screws, receiver, magazine, floor plate, magazine spring, and follower. The knowledge of the names required will be picked up as the instruction proceeds. It is unnecessary that the names of parts not habitually referred to be learned.

b. The instructor or coach should operate the bolt, demonstrating the use of the magazine cut-off, lock, etc., and should particularly point out the following points: Unless the bolt is drawn fully back the ejector will fail to work, and in magazine fire will cause a jam. When a misfire occurs, press the bolt handle well down, pull the cocking piece to the rear, and try again. Most misfires result from the fact that unless the bolt handle is fully down, the firing pin does not strike. When the cut-off is up and the magazine empty, the bolt is held open. For practicing the motions of rapid fire, turn the cut-off down or "off." For details of nomenclature and functioning, see O. P. 111.

19-79. *RULES FOR CLEANING*.—*a*. The rifle is a fine piece of mechanism. It must be kept clean, free from rust, and well lubricated. Preliminary instruction on the cleaning of the rifle is given the man as soon as he is issued the rifle. This instruction should be reviewed as the firing advances, and all materials, such as rods, patches, oil, grease, cleaning racks, etc., should be available. Near the firing line should be located an armorer with a spare part and tool box, and other materials for upkeep.

NOMENCLATURE, CARE, AND SAFETY PRECAUTIONS—RIFLE

b. The following rules should be observed: The bolt should be removed and the rifle cleaned from the breech end. The fouling, if left in the bore after firing, will rust and injure it. After the day's firing clean the bore by using a cleaning rod and small patches of flannel, about $1\frac{1}{2}$ inches square. The bore should be swabbed out with the patches saturated with warm fresh water, then dried clean and oiled with a slightly oiled rag to prevent rusting. The working parts should be wiped clean and slightly oiled. The use of emery cloth, crocus cloth, or other abrasive materials for cleaning rifles is prohibited. No surplus oil should be used, as it collects dirt, makes the rifle difficult to handle, and, if allowed to collect around the firing pin, flies back in the firer's eye. The bolt handle should be kept dry to avoid slipping in the hand when operating it "rapid fire." The use of tomponions or patches stuck in the bore is prohibited. Such practice retards the circulation of air and promotes rust. It also introduces the danger of rupturing the barrel if a shot is fired with a tomponion in. For details of cleaning, see O. P. 111.

19-80. *CLEANING RACKS*.—Cleaning racks should always be provided near the firing points. These may readily be improvised from boxes or such lumber as may be available. A simple yet effective one can be made up by cutting to a convenient length two 2 by 4 or 2 by 6 and laying them on edge. They should then be notched at intervals great enough to give room for cleaning and deep enough to take the rifle. They are then laid parallel to one another at such a distance apart that when the trigger guard of the rifle is just inside the near one the forward edge of the upper band is just inside the far one. They should be secured in this position by ties across the ends, and raised above the ground on corner posts so that the rear notches are at about the height of a man's waist and the forward ones somewhat lower. If the rack is rigidly secured and the rifle is properly placed in the notches, no motion of the rifle will result when the rod is being worked back and forth in the bore.

19-81. *USE OF OIL*.—The oils to be used in the bores of rifles should be such that no rusting will result from the oils themselves. A light oil like sperm may be used when the rifle is to be fired the next day. A heavy grease should be employed when the rifle is to be put away for some time. With heavy greases it is advisable to warm them before application in order to make certain that they are uniformly distributed in the bore. The oil should always be wiped from the barrel before firing. This is necessary not only from the

SAFETY PRECAUTIONS

standpoint of the inaccuracy which might result in the first shot, but also to avoid the danger of accumulating high pressures in the bore. The use of grease on bullets is extremely dangerous and should not be permitted. A touch of grease on the cocking cam of the firing pin will increase the ease of bolt manipulation.

19-82. *SAFETY PRECAUTIONS*.—Safety precautions should be explained to the men and should be frequently emphasized as the instruction progresses. The following precautions are the most important:

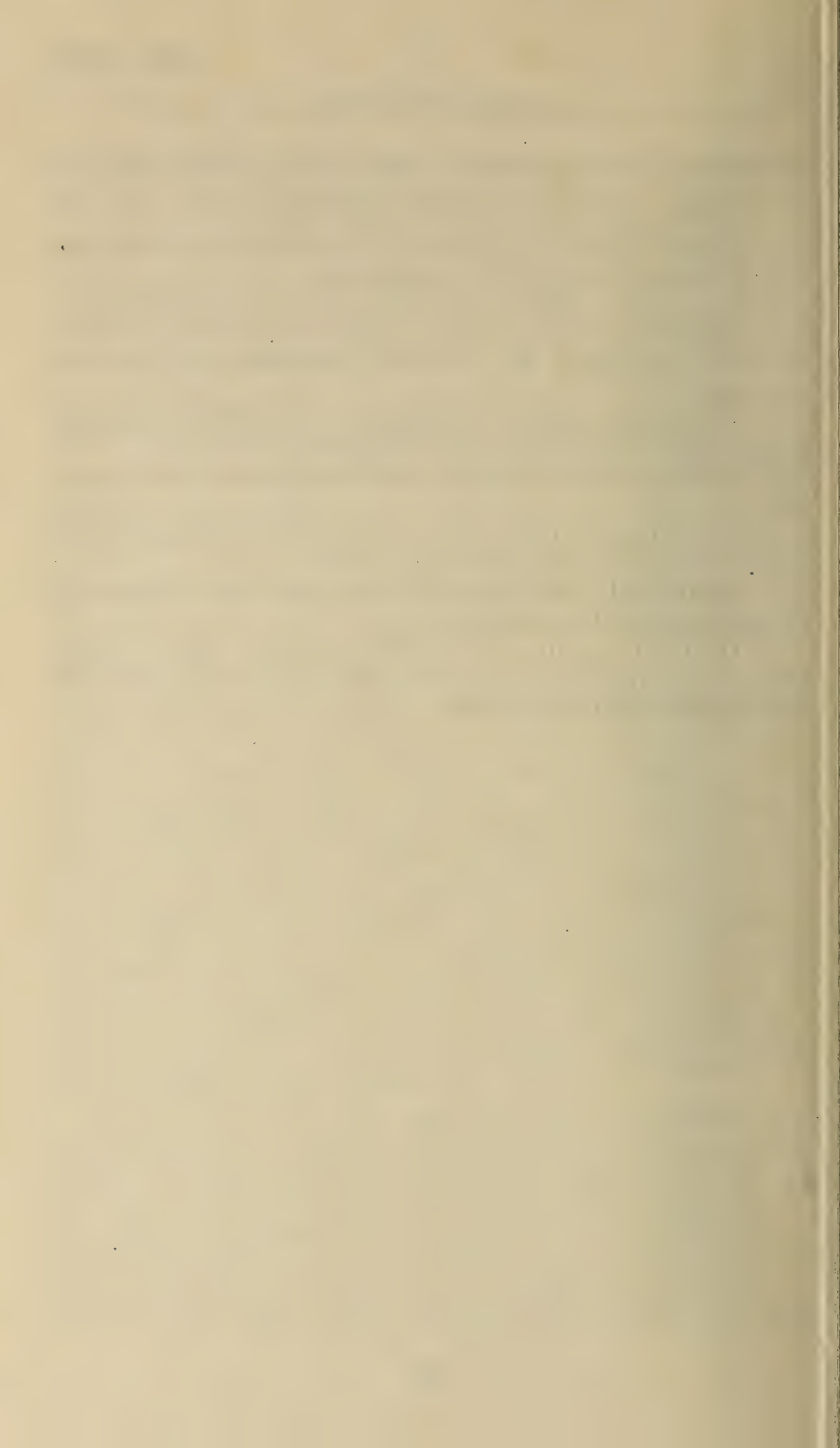
(1) Never point a rifle at anyone you do not intend to shoot nor in a direction where accidental discharge may do harm.

(2) On leaving the firing line open the chamber and keep it open.

(3) Never leave a loaded rifle or one with cartridges in the magazine where it can be picked up by others.

(4) Immediately upon taking up a rifle make sure by personal examination that it is not loaded.

(5) On the firing line, if the rifle is loaded, keep it locked until you are ready to shoot, and do not turn around on the line with a loaded rifle in your hands.



SECTION VIII

PREPARATORY EXERCISES—RIFLE

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19-83. *IMPORTANCE OF SIGHTING AND AIMING.*—The exact alignment of the sights with each other and with the aiming point is necessary for accurate shooting. Due to the short distance between the sights a small error in aligning the sights causes a considerable error at the target. Fortunately, however, the correct method of sighting is very easily learned and very accurate results can be obtained with a small amount of thorough training. With men who have been given the preparatory exercises prescribed herein, poor shooting is seldom, if ever, caused by faulty aiming.

PREPARATORY EXERCISES—RIFLE

19-84. *CORRECT SIGHT ALIGNMENT.*—Service small arms are fitted with two types of sights, the peep and the open sight. Where the peep sight is fitted it should be used for all firing.

a. The peep sight.—The correct alignment of the peep sight is shown in Figure 1. It will be noted that the tip of the front sight is in the center of the peep. The bull's-eye is wholly within the upper half of the peep.

b. The open sight.—The correct alignment of the open sight is shown in Figure 1. It will be noted that the tip of the front sight is level with the top of the open sight bar. The bull's-eye is wholly above the bar.

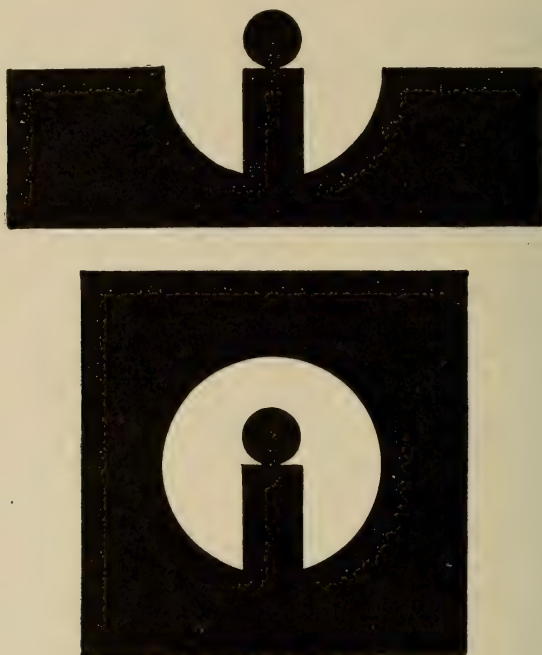


FIGURE 1.—Correct sight alignment.

19-85 *CORRECT METHOD OF AIMING.*—*a.* With the peep sight the eye looks through the peep without focussing on it. The outline of the peep is blurred but the center of it is clear. The tip of the front sight is brought to the center of this clear space. Keeping the two sights so aligned, both sights are moved together until the tip of the front sight is just under the bull's-eye. The front sight should be as close up to the bull's-eye as will allow the bull's-eye to be seen as a full clear circle without blurring or distor-

INSTRUCTION IN SIGHTING AND AIMING

tion. The appearance of the properly aligned sights and bull's-eye is impressed on the memory so that any error of alignment is instantly recognized.

b. With the open sight more attention must be paid to the appearance of the rear sight. The firer must look at the rear sight as well as at the front sight and at the bull's-eye. With somewhat more practice than is required for the peep sight, the correct appearance of the open sights may be memorized so that errors of alignment are readily apparent.

19-86. *INSTRUCTION IN SIGHTING AND AIMING.*—The correct method of aligning the sights is explained and is illustrated by the use of diagrams and the sighting bar. The use of the sighting bar and the rifle rest is demonstrated. The men under instruction are exercised in the use of the sighting bar until they are familiar with the appearance of the sights when correctly aligned on the bull's-eye. The men under instruction are then required to recognize and name small errors of alignment, set on the sighting bar by the group instructors. The foregoing should occupy something less than a full period of instruction. The use of the rifle rest follows the exercises with the sighting bar. Each man under instruction is required to make at least two sighting triangles. Not more than two full instruction periods are required for the separate instruction in sighting and aiming. Aiming instruction is, however, continued in conjunction with the position and trigger squeeze exercises. This is done by providing a series of small aiming bull's-eyes conveniently located for aiming in each of the three positions. These small aiming bull's-eyes should be at least 20 feet from the firers and preferably at a greater distance.

19-87. *CONSTRUCTION OF SIGHTING BAR.*—The sighting bar is illustrated in Figure 2. It consists of a wooden bar 54 inches long, 2 inches wide, and 1 inch thick. At one end is fixed the front sight and on the other end is an eyepiece containing a small sighting hole. Transverse saw cuts are made in the bar 28 and 48.5 inches from the end to which the eyepiece is affixed. Removable miniature targets and rear sights made of blackened sheet metal are provided. In use the rear sight and the target are adjusted in the saw cuts so as to give the correct alignment or to illustrate a particular sighting error. Both open and peep rear sights are provided. No rests are provided for the sighting bars as they are intended to be passed from hand to hand.

PREPARATORY EXERCISES—RIFLE

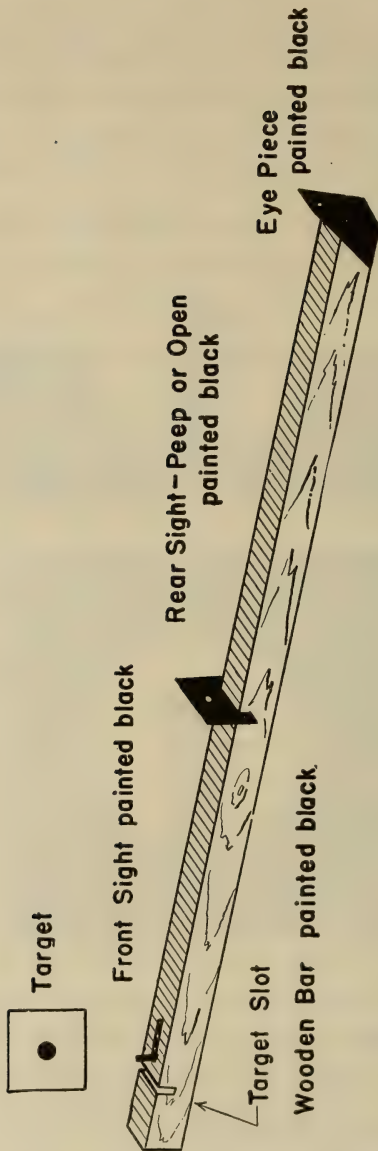


FIGURE 2.—Sighting bar.

RIFLE RESTS

19-88. *RIFLE RESTS*.—*a*. The rifle rests are illustrated in Figure 3. Any well-made box, such as an ammunition box, can be used to make these rests. The notches cut in the ends of the box are of such size that the stock of the rifle fits snugly in them. The boxes are weighted by partially filling them with sand or other heavy material.

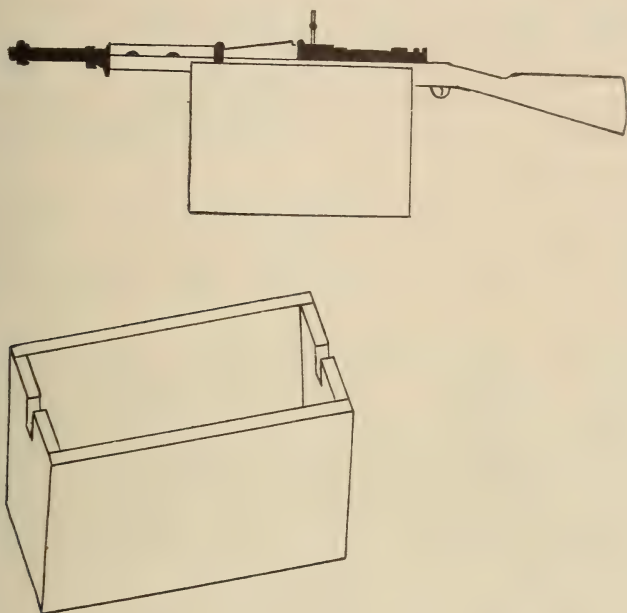


FIGURE 3.—Rifle rest.

b. The rifle rests are used in conjunction with the aiming disks when making the sighting triangles. They are also used with distant bull's-eyes to instruct the men in the correct appearance of the sights when aligned on these distant bull's-eyes.

c. The sighting triangles are made as follows:

(1) A blank sheet of paper is attached to a bulkhead, or other support, which is at least 20 feet distant from the rifle rest.

(2) One man provided with a sighting disk takes station at this sheet of paper and holds the sighting disk against the paper.

(3) The firer takes station at the rifle rest, being careful not to move the rifle or the rest. The firer looks through the sights and directs the sighting disk to be moved up or down, right or left, until it is seen correctly aligned with the sights. The firer then calls "Mark."

PREPARATORY EXERCISES—RIFLE

(4) The man with the sighting disk now holds the disk stationary and marks a dot on the paper by inserting the point of a pencil in the hole in the center of the sighting disk.

(5) This procedure is repeated three times. The three dots so formed are connected to form the sighting triangle. The firer's name is written across this triangle. The rifle rest is moved slightly and the whole procedure repeated with another man acting as firer.

d. The rifle rests are used with the distant bull's-eyes in the following manner:

(1) The instructor moves the rifle rest until the sights are correctly aligned on the bull's-eye, which should be 200 or more yards from the rifle rest.

(2) The men under instruction are required to observe the appearance of the sights and the bull's-eyes.

(3) The rifle rests are moved slightly and the men under instruction required to bring the sights into proper alignment with the bull's-eye.

(4) The instructor checks the alignment and points out any errors.

19-89. *IMPORTANCE OF GOOD POSITION.*—A good position is a requisite to the best results in rifle shooting. The better the position the easier it is to hold, and consequently the less the attention is distracted from the all-important operation of squeezing the trigger while the sights are properly aligned. No degree of excellence in the position will, however, compensate for a lack of practice. The time available for rifle training should be devoted to practice and not to a search for minor variations in positions to suit individual peculiarities.

19-90. *STANDARD POSITIONS.*—The standard positions prescribed in these rules are three in number: Prone, sitting, and standing. These positions have been selected as a result of experience and have been found to produce excellent results with men of all physical types. The untrained man will at first have some difficulty in assuming these positions, but this difficulty will disappear with practice. The initial difficulties experienced by the untrained men produce a tendency to depart from the standard positions and in some cases to a continual experimentation with variations in position. These tendencies should be immediately checked and all men required to use the standard positions. A good position with adequate training is preferable to a better position with less training.

19-91. *CONSIDERATIONS APPLICABLE TO ALL POSITIONS.*—*a.* No rifle supported by the body of the firer is ever per-

CONSIDERATIONS APPLICABLE TO ALL POSITIONS

fectly still. In general, the unsteadiness increases with the number of muscles involved in holding the rifle. Propping the rifle in position with the rigid bony framework of the body increases the steadiness of holding.

b. In any position, with the attention relaxed, the involuntary movements of the body will cause corresponding movements of the

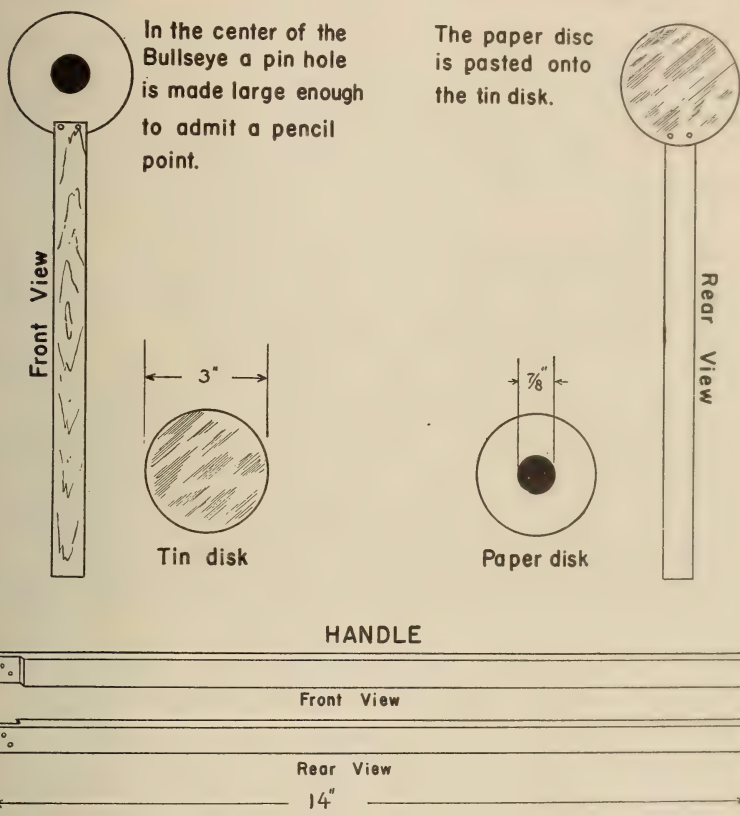


FIGURE 4.—Aiming disk.

rifle. If these movements are observed through the sights, it will be seen that the line of sight moves irregularly back and forth over a definite area of the target. A conscious effort is required to direct the sights at a point outside of this area. When the firer concentrates on squeezing the trigger the conscious effort of holding is somewhat relaxed. This results in the rifle and the shot being deflected toward the area on which the sights align when the attention is relaxed. The position is then correct only when the desired aiming

PREPARATORY EXERCISES—RIFLE

point lies well within the area on which the sights align when the attention is relaxed. The correctness of the position may be checked by closing the eyes for a few seconds, and then, upon opening them, noting the part of the target on which the sights are aligned. If this is not the desired aiming point, the whole body should be moved until the sights align naturally on or near to the desired aiming point.

c. The pulsation of the firer's body and the trembling of his muscles have little effect on the accuracy of the fire. The resulting total displacement of the rifle is small and is such that the barrel remains parallel to its correct position. The parallel movements of the rifle cause only minor deviations in the fall of the shot. Canting the rifle has no appreciable effect at 200 yards.

d. The firer's balance should be sufficiently stable as not to be seriously disturbed by the force of the recoil.

e. The position of the firer's hands and arms should be such that—

(1) He has full control of the rifle at all times.

(2) He can reload with facility without any major change of position and without removing the rifle from his shoulder.

f. The position should be comfortable and one which can be maintained without strain.

g. A conscious effort should be made to relax as much as practicable before concentrating on the squeezing of the trigger.

h. The slack in the trigger should be taken up as soon as the position has been assumed and during the time that the sights are being aligned.

i. During the final operation of squeezing the trigger the breath should be held. The correct method of doing this is to:

(1) Take an ordinary breath.

(2) Let out somewhat less than half of it.

(3) Hold the rest by closing the throat and not by muscular effort. The muscles of the diaphragm should be relaxed.

19-92. *USE OF THE SLING.*—The sling is an important aid to steady holding in the prone and sitting positions. With the elbows resting on the ground or on the knees, the use of the sling permits the rifle to be propped into position with little or no muscular effort. With the muscles properly relaxed, the whole position would collapse if it were not tied together by the sling. The tension on the sling is that due to the weight which it supports. This weight includes the weight of the left forearm, the rifle, the head, and a considerable portion of the weight of the upper part of the body. In-

CORRECT SLING ADJUSTMENT

creasing the tension beyond that necessary to support these weights requires an unnecessary and undesirable expenditure of muscular effort. To one who is accustomed to its use the properly adjusted sling causes no discomfort. Untrained men, however, always believe that the properly adjusted sling is too tight. This is due to the fact that they have not learned to relax properly and are opposing the stricture of the sling by hardening the muscles of the left arm. For this reason the instructor must be the judge of the length of the sling to be used by the untrained man. It will be found that there is surprisingly little difference in the lengths of the slings required by men of different builds. In the standing position, where the left elbow is unsupported, the use of the sling is prohibited.

19-93. *CORRECT SLING ADJUSTMENT*.—To adjust the sling for use in the prone and sitting positions—

(1) Disengage the hook of the short strap from the long strap and hook it into its own part.

(2) Adjust the free loop of the long strap so that when it is pulled back taut the end of the loop comes even with the comb of the stock.

(3) The keeper on the sling should be placed so that it is situated between the hook of the long strap and the free end of the loop.

(4) Bending the left hand back at right angles to the wrist, insert it, from the right side, into the free loop of the long strap.

(5) With the right hand adjust the loop well up on the left upper arm, and push the keeper back against the left upper arm.

(6) With the rifle held approximately horizontally, pass the left hand to the left, then over both parts of the long strap and grasp the stock with the left hand near the lower band swivel.

(7) Slide the left hand out against the pressure of the sling as far as it will go toward the lower band.

19-94. *INSTRUCTION IN USE OF SLING*.—The principal instruction in the use of the sling is given at the beginning of the first period of instruction in positions. After the usual explanation and demonstration, the men under instruction are required to make 10 repetitions of the adjustment of the length of the sling and its proper adjustment on the left arm. Each of these 10 trials starts with the sling in the parade position. Subsequent instruction in the use of the sling is given in conjunction with the instruction in positions and the methods of assuming them.

19-95. *PRONE POSITION*.—*a. Method of assuming*.—In order to avoid the formation of wasteful habits a routine method of assum-

PREPARATORY EXERCISES—RIFLE

ing the prone position should be used from the beginning of the instruction. The following method differs from that used in the other services, but it is equally as rapid and is more suited for practicing on the steel or wooden decks of ships. The procedure is as follows:

- (1) Adjust the sling as described in paragraph 19-93.
- (2) Select the spot on which it is desired to place the left elbow.
- (3) Kneel on the right knee, with knee a few inches to the right and rear of the selected spot.
- (4) Place left elbow on the selected spot and at the same time let the left leg slide to the rear.
- (5) Throw the weight of the body on the left elbow and slide both feet to the rear on the bent toes.
- (6) Bring rifle to the shoulder and place right elbow on the ground.

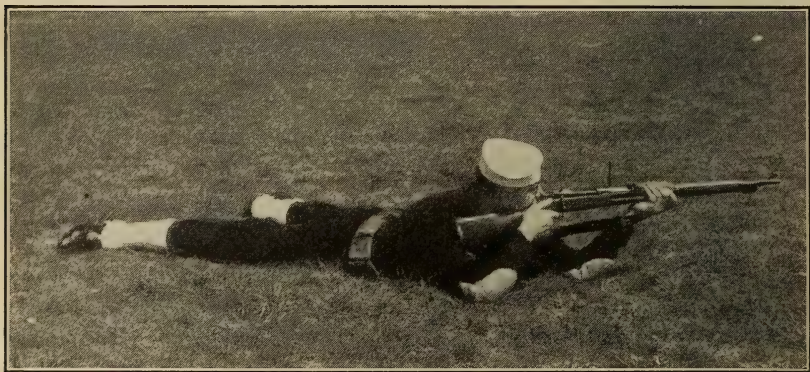


FIGURE 5.—Prone position.

b. Description.—This is the most steady of all the positions where no artificial rest is used. In this position a trained man can for a few seconds at a time hold so steadily that there is no perceptible motion of the sights. The detailed description of the position follows:

- (1) The sling is adjusted as described in paragraph 19-93. The body lies at an angle of about 45° to the line of fire, head toward the target. The legs, abdomen, and lower part of the chest rest on the ground. The legs are spread apart at a comfortable angle, the feet resting naturally on the ground, without straining to put them in any particular position. The butt of the rifle is placed well up on the right shoulder, with care taken to see that it does not rest against the collar bone or shoulder joint. If the rifle is properly

SAND-BAG REST

placed on the shoulder, no ill effects are felt from the recoil. The left elbow is well to the front and is placed directly under the rifle. The left hand is all the way out against the lower band swivel. The rifle merely rests in the left hand and is not grasped by it. The muscles of the left arm are relaxed. The fingers of the left hand are partially closed, so that they will be clear of the line of sight. The right elbow is so placed that the right hand can comfortably reach the stock, and so that the right upper arm is inclined to the ground level at an angle of about 60° . The right hand rests against the small of the stock, grasping it lightly. The grasp of the right hand serves more to maintain the position of that hand than to hold the rifle. The right thumb is extended along the right side of the stock. The head is turned toward the target and the right cheek rests against the stock. The pressure of the right cheek against the stock is only the pressure due to the weight of the head. The position of the head, with reference to the stock, is the natural position in which the head rests with neck muscles relaxed. No attempt is made to strain the head forward in order to get the eye close to the sight. The muscles of the upper part of the body are relaxed, allowing the body to sag down between the shoulders. The sag of the body causes the right shoulder to press against the rifle, forcing it out against the tension of the sling. The result is that the forward part of the body is propped up clear of the ground by the rifle. The rifle in turn is held in place by the sling. The sling is the principal support of the position, which would collapse if the sling were cut.

(2) When in position, the front sight is centered in the peep and the forefinger takes up the slack of the trigger. As far as possible all other muscles are relaxed. The breath is held as described in paragraph 19-91i. The right eye is closed for a few seconds and then opened. If, when the eye is opened, the sights are not aligned on, or very nearly on, the desired point of aim, the whole body is moved so as to cause the sights to align naturally on the desired point of aim. In moving the body, the left elbow remains in place and the whole position pivots around it.

19-96. *SAND-BAG REST*.—With the firer in the prone position, as described in paragraph 19-95 (b) and illustrated in Figure 5, the instructor places a sand bag under the rifle so that it just clears the rifle and the left wrist of the firer. A depression is formed in the sand bag so that it will fit the left wrist and back of the left hand of the firer. The sand bag is now moved toward the firer until it

PREPARATORY EXERCISES—RIFLE

supports the left wrist and hand. The rifle does not touch the sand bag.

19-97. *SITTING POSITION.*—*a.* The sling is adjusted as explained in paragraph 19-93. The body faces about 45° to the right of the line of fire. The buttocks and the bottoms of the feet only rest on the ground. The heels are dug into the ground slightly to prevent slipping. The legs are spread apart to a comfortable extent and the elbows are supported by the knees and legs. Some slight experimentation will be required to find the best position for the elbows. The back of the right elbow is supported by the inner side



FIGURE 6.—Sitting position.

of the right leg. The body should lean far enough forward so that the balance is not disturbed by the recoil, but not so far as to cause difficulty in aligning the sights on the target. The muscles can not be relaxed to as great an extent in the sitting position as is the case in the prone position. Unnecessary hardening of the muscles must, however, be guarded against. The head is supported by the stock with neck muscles relaxed. The body is propped in position by the rifle, which in turn is held by the sling.

b. The front sight is centered in the peep and the forefinger of the right hand takes up the slack of the trigger. As far as practicable the muscles are relaxed. The breath is held as described in paragraph 19-91i. The right eye is now closed for a few seconds and then opened. The point on the target at which the sights are directed is noted when the eye opens. If this point is not the desired point of

STANDING POSITION

aim, the whole body is moved until the sights line up naturally on the desired point of aim.

19-98. *STANDING POSITION*.—*a*. This is the least steady of the three standard positions. In the standing position even the most expert shot will have difficulty in holding the sights in correct alignment for more than a few seconds at a time. The body is faced almost at right angles to the line of fire and is erect with weight equally distributed on both legs. The feet are placed about 15 inches

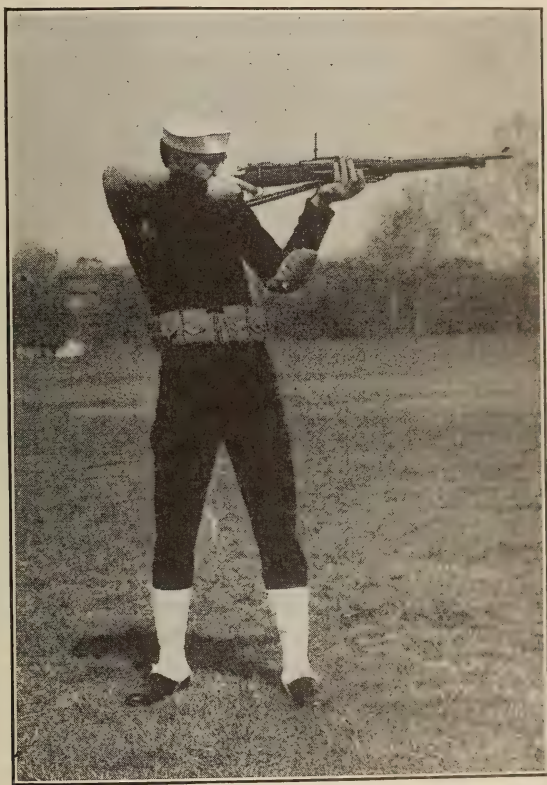


FIGURE 7.—Standing position.

apart, no effort being made to turn the toes either in or out. The left hand grasps the stock lightly between the rear sight and the lower band. The left elbow is under the rifle. The right hand grasps the small of the stock firmly and pulls the stock back hard against the shoulder. The right elbow is at about the height of the shoulder or above it. Most of the weight of the rifle is supported by the pull of the right hand, while the left hand, supporting little of

PREPARATORY EXERCISES—RIFLE

the weight, acts more as a guide. The head rests naturally on the stock with neck muscles relaxed.

b. The front sight is centered in the peep and the right forefinger takes up the slack of the trigger. The right eye is closed for a few seconds and when opened the point at which the sights are directed is noted.

19-99. *INSTRUCTION IN POSITIONS.* a.—The officer in charge of instruction starts with an explanation of the subject matter of paragraphs 19-89 to 19-98, inclusive. One of the instruction groups is used to demonstrate the methods of instruction and to illustrate—

- (1) The method of controlling the breathing.
- (2) The method of taking up the slack.
- (3) The sling adjustment and use of the sling.
- (4) The method of assuming the prone position.
- (5) The prone position.
- (6) The sandbag rest.
- (7) The sitting position.
- (8) The standing position.

The instruction for the first and second periods should cover items (1), (2), (3), (4), and (5). After the demonstration of the items to be covered during the period, the group instructors proceed with the instruction of their groups.

b. The individual instruction consists of—

- (1) Requiring each man of a pair to repeatedly perform the various operations in the prescribed manner; and
- (2) Requiring each man of a pair to observe the manner in which the other member of his pair performs the same operations.

It should be remembered that the amount of training will depend on the number of times each operation is repeated rather than on the amount of time spent in each repetition. After a position has been correctly assumed, little or no training results from the passive maintenance of that position. The beneficial effect is due almost entirely to the active performance of the motions necessary in order to get into the position. Each repetition should start and end with the men standing with pieces at order arms. The first 10 repetitions of the adjustment of the sling should begin and end with the sling in the parade position. After the first 10 repetitions, the sling may be allowed to remain with the loop free and adjusted to the proper length for use in firing. The instruction in sling adjustment is followed by instruction in the prone position and the method of assuming it. With the loop sling loose and adjusted to the correct length, the men are re-

ALLOTMENT OF TIME

quired to get into the sling and to assume the position in the prescribed manner. This includes the taking up of the trigger slack, aiming, breath control, and proper relaxation. Snapping the piece is not included and should not be permitted. As soon as the position has been correctly assumed the men are required to rise, remove the sling, and take the position of order arms. The firer of each pair is required to make 8 or 10 repetitions of this procedure, after which he exchanges places with the coach, who in turn makes the same number of repetitions. The instruction in the sitting and standing positions is carried out in a similar manner.

19-100. *ALLOTMENT OF TIME*.—No attempt should be made to progress beyond the prone position during the first practice period of the second step. Only a few minutes is required for the separate instruction in breathing, and in taking up the trigger slack. About 15 to 20 minutes of the first period and from 5 to 10 minutes of succeeding periods is used for separate instruction in the use of the sling. Breathing, taking up the slack, and use of the sling are included in the position and receive additional practice as parts of it. The second practice period of the second step covers a brief review of the work of the first practice period followed by instruction in the sitting and the standing positions, the greater portion of the time being devoted to the sitting position. Subsequent practice periods available for the second step are about equally divided among the three positions.

19-101. *IMPORTANCE OF TRIGGER SQUEEZE*.—The correct trigger squeeze is, without question, the most important part of small-arms shooting. Men who have mastered the correct method of squeezing the trigger are able to make excellent scores under even the most adverse conditions. Those who have not mastered the correct method of squeezing the trigger are unable to make good scores under any conditions. An incorrect method of squeezing the trigger is the cause of most poor shooting. A man who has mastered the correct method of squeezing the trigger in any one position will have little difficulty in any other position.

19-102. *CORRECT METHOD OF TRIGGER SQUEEZE*.—The mechanical operation of the correct trigger squeeze is a very simple one. The pressure on the trigger is applied straight back, in a line parallel to the bore. If there is any sidewise pressure on the trigger, the release of the sear will result in an unbalanced pressure, which will cause a sidewise deflection of the shot. The pressure on the trigger is increased gradually until it is sufficient to release the sear.

Sudden, jerky increases of pressure disturb the aim and make it impossible to hold on. So long as the increases of pressure are applied smoothly and without jerks, there need be no limit on the rapidity with which they are applied. The whole operation of squeezing the trigger should not take more than 2 or 3 seconds and with practice can readily be reduced to less than 1 second.

19-103. *FLINCHING*.—*a. Cause and effect*.—Flinching is caused by the involuntary, spasmodic, hardening of the muscles in order to withstand the shock of recoil. The bad effect of flinching is due to the fact that the recoil is anticipated. The spasmodic bracing of the body takes place just before the piece is fired, resulting in a serious disturbance of the aim.

b. Flinching a natural reaction.—All men instinctively try to avoid the consequences of an expected blow. A lifetime of habit has strengthened this natural impulse. The man may be perfectly aware that the expected blow is not a serious one, but nevertheless will, unless otherwise trained, brace himself to withstand it. The impulse to flinch is so natural and so habitual that men who flinch are seldom aware of the fact that they do so. The movement due to the recoil ordinarily masks the movement due to the flinch which immediately precedes it.

c. Flinching demonstrated.—It is sometimes difficult to make men believe that they flinch. With such men, nothing can be done until they are convinced of their fault. This is difficult, as men seldom flinch with a rifle or pistol which they know to be unloaded. The best procedure in these cases is for the instructor to load the magazine with a mixture of live and dummy cartridges. The derangement of the aim, due to flinching, will be readily apparent to the firer when he snaps on the dummy cartridges.

d. Flinching detected.—In flinching the firer invariably closes the sighting eye before the shot is fired. In order to detect flinching, the coach need only watch the firer's eye. If the firer's eye can be seen to close, it is a sure indication that he is flinching.

19-104. *METHODS OF PREVENTING FLINCHING*.—Careful instruction is necessary, both in the preparatory exercises and in the range instruction, if the habit of flinching is to be overcome. Without this careful instruction the beginner will not improve, but will get worse the more he fires. The best method of overcoming the habit of flinching is to train the man to fire under conditions which make it difficult for him to flinch. These conditions are—

a. The muscles relaxed.—If the muscles are kept relaxed until the sear is released, it is impossible to flinch in time to disturb the fall

METHODS OF PREVENTING FLINCHING

of the shot. It is, however, very difficult to keep the muscles perfectly relaxed in an unfamiliar or uncomfortable position. For this reason, men must become accustomed to the position, and be able to assume it easily, before instruction in trigger squeeze is given. In order that the instruction in trigger squeeze may not be too long delayed, it should be given first in the steadiest and most comfortable position.

b. Firer required to call the shot.—The firer is instructed to continue the aim until the shot is fired. He is required to designate the part of the target on which the sights were aligned at the instant of discharge. The inability to do this indicates that he closed his eye, i. e., flinched, just before firing. The persistent effort of the firer to see the sights right up to the instant of discharge will assist in preventing flinching.

c. The use of the sandbag rest.—The most steady position, is the one used for the first instruction in trigger squeeze. For the rifle this position is the prone position using the sandbag rest. Before instruction in trigger squeeze is given, even in this position, the instructor should assure himself that the man is familiar with the position, and that his muscles are relaxed. The sandbag rest is used both in the preparatory exercises and for the first few shots fired on the range.

d. The instructor squeezes the trigger.—For the first few trials during the preparatory exercises and for the first few shots on the range, the instructor squeezes the trigger while the firer aims. The purpose of this is to show the firer how to apply the pressure on the trigger, and to demonstrate to him that there is no derangement of the aim when the trigger is properly squeezed. The sandbag rest is used. The instructor takes position alongside of the firer, resting his weight on the right elbow, and supporting the right wrist with the left hand. The instructor's right thumb is placed over the firer's forefinger, which rests on the trigger. The instructor's forefinger is placed in rear of the trigger guard. The instructor squeezes the trigger with a pinching action of the thumb and forefinger. While squeezing the trigger, the instructor watches the back of the firer to note his breathing. When the firer holds his breath, it is an indication that he is aiming and that the sights are properly aligned.

e. The gradual squeeze.—When the instructor squeezes the trigger there is no disturbance of the aim. This is due to two reasons: First, the pressure is applied straight back in a line parallel to the bore, so that there is no unbalanced pressure when the sear is released. Second, the pressure is gradually applied so that the firer does not know

PREPARATORY EXERCISES—RIFLE

exactly when the discharge will take place. The discharge coming unexpectedly, does not give the firer time to brace himself. He does not flinch because he does not know when to do so. In order that a similar effect may be produced when the firer himself squeezes the trigger, he is instructed to increase the pressure gradually. When the trigger is squeezed with a gradually increasing pressure, the firer cannot foretell the exact instant when there will be enough pressure to release the sear, and consequently does not know when to flinch. The firer then squeezes the trigger in such a manner that he does not know exactly when the rifle will be fired.

19-105. *INSTRUCTION IN TRIGGER SQUEEZE*.—The instructor explains the importance of the trigger squeeze and the correct method of performing it. He then selects one pair from the men to be instructed and demonstrates the method of detecting flinching by watching the firer's eye, and the method in which the coach squeezes the trigger while the firer aims. The "firers" and "coaches" are then required to assume their correct positions, and the instructor assures himself that these positions are correct before the individual instruction is allowed to proceed. For the first 10 trials, the coach squeezes the trigger while the firer aims. The firer and coach then exchange places for the next 10 trials. Following this, each man of the pair is given 2 more strings of 10 trials each, still using the sandbag rest but with the firer squeezing the trigger. For the remainder of the period the exercise is carried on without the sandbag. Succeeding periods are begun in a similar manner with an explanation and a demonstration. The sandbag rest is used at the beginning of the second period of instruction but its use may thereafter be discontinued. During the second period the instruction should be confined to the prone position only. In subsequent periods the first instruction is given in the prone position followed by instruction in the sitting and standing positions.

19-106. *RAPID FIRE*.—*a. Movements*.—Rapid fire is merely a succession of single shots fired without a waste of time between shots. Each shot is fired in the same manner and with the same care as is used in firing slow fire. Facility in rapid fire depends upon:

- (1) Having a position that is not unbalanced by the recoil.
- (2) Correct manipulation of the bolt.
- (3) Keeping the rifle at the shoulder during reloading.
- (4) Keeping the eye on the target during reloading.
- (5) Proper loading of the second clip.
- (6) A familiarity with the appearance of the sights when properly aligned on the bullseye.

BOLT MANIPULATION

- (7) A decisive but unhurried trigger squeeze.
- (8) A well-practiced method of assuming the positions.
- (9) The avoidance of any pause between the successive operations of firing.

b. Position.—The position for rapid fire should be the same as for slow fire. If it is found that the recoil will unbalance or unduly disturb the slow-fire position then the slow-fire position must be corrected. No change in the position during the rapid-fire string should be necessary.

19-107. *BOLT MANIPULATION.*—*a. Description.*—The correct manipulation of the bolt requires considerable practice. When properly operated, the bolt is opened or closed in one motion. A coordination of effort between the two hands is required. The left hand twists the rifle to the right and lowers the muzzle at the same time that the right hand is lifting the handle of the bolt. As the bolt is closed the left hand twists the rifle back to the left and raises the muzzle to its original position. In opening the bolt, the right hand should be moving upward when it strikes the bolt handle so that the momentum of the hand will assist in raising the handle. The ball of the bolt handle is caught on top of the closed right forefinger, and the right thumb placed well up on the bolt handle. When the bolt handle is raised the bolt should be jerked back hard against the stops, the right wrist turning up. As soon as the bolt is all the way back it should be started forward again by a wrist motion. If properly done the bolt is slammed forward and the handle turned down in one motion of the wrist. The handle must be all the way down or the rifle will misfire.

b. Exercise in bolt manipulation.—The service rifle is cocked by means of a cam as the bolt is opened. This adds to the difficulty of opening the bolt. In order that the firer may become accustomed to this added difficulty, the earlier manipulation exercises are made with the trigger tied back. In these early exercises the right hand is not removed from the bolt. The bolt is opened and closed as rapidly as the firer can move it. From 30 to 50 openings and closures are made at a trial. The rifle need not be kept at the shoulder for the early manipulation exercises.

c. Keeping the rifle at the shoulder.—The exercises of paragraph 19-107*b* are followed by practice in manipulating the bolt while the rifle is kept at the shoulder. The trigger is kept tied back but the right hand is removed from the bolt and replaced in its proper position on the stock after each closure. Bolt manipulation practice

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with the rifle in position on the shoulder is given first in the sitting position. This is followed by exercise in the prone position. In the sitting position the elbows remain in place on the knees during the working of the bolt. In the prone position both elbows remain in position on the ground. Ten to fifteen openings and closures constitute a trial.

d. Keeping the eye on the target.—The untrained men invariably look into the chamber as the bolt is opened. This causes a loss of time in picking up the target for the next shot and is a frequent cause of firing at the wrong target. The men must be carefully coached on this point as they are usually unaware of the fact that they do not keep their eyes on the target. Men soon learn to count the shots fired and know when the rifle is empty without looking into the chamber.

19-108. *LOADING THE SECOND CLIP.*—The butt of the rifle is slipped down from the shoulder and the clip is inserted in the guide slots by the right hand. The right thumb is placed on the upper cartridge so that the pressure will come on the cartridge case about 1 inch from the clip. The fingers of the right hand are placed under the rifle. The cartridges are stripped from the clip by decisive continued pressure of the right thumb. It is important that this pressure be smoothly applied and that it not be interrupted until the loading is complete. A jerky or hesitant application of the pressure will result in a jamb. Haste is unnecessary and undesirable during the loading of the clip. No effort should be made to speed up this operation other than avoiding pauses between the different parts of the operation. Dummy cartridges are used if available. If no dummies are available the firing pins must be removed from the bolts before starting the practice. Each man is required to make five loads at a trial. The man then gathers up the loose cartridges and reloads them into the clips. Two trials of five clips each is usually sufficient for this practice.

19-109. *AIMING IN RAPID FIRE.*—In rapid fire the aiming should be as accurately and carefully done as in slow fire. In fact the aiming in rapid fire is usually more accurate because there is no time to dwell on the aim, causing the eye to blur.

19-110. *SQUEEZING THE TRIGGER IN RAPID FIRE.*—As soon as the firing position is assumed the slack of the trigger is taken up. While the aim is being completed there should be a firm but light pressure on the trigger. As soon as the aim is correct, the trigger is squeezed with a decisive but smoothly applied increase of pressure. There is plenty of time to allow the pressure to be applied gradually and without jerks. There should, however, be no stoppage or hesita-

ASSUMING THE FIRING POSITION

tion in the increase of pressure. Immediately after the shot is fired the bolt is operated to reload for the next shot and the sights are again brought into alignment with the bull's-eye. As soon as the bolt is closed, and while the sights are being brought back on the target, the slack of the trigger is again taken up and a light, firm pressure put on the trigger. No separate exercises are given in squeezing the trigger in rapid fire.

19-111. *ASSUMING THE FIRING POSITION*.—The method of assuming the prone position is as described in paragraph 19-95. In assuming the sitting position the firer half faces to the right before sitting down. The rifle is held out well in front of the body to assist in keeping the balance while assuming the sitting position. The right hand may be used to break the fall.

19-112. *INSTRUCTION IN RAPID FIRE*.—Each instruction period starts with an explanation and a demonstration of the work for the period. The first period is devoted to instruction in bolt manipulation, bolt manipulation in sitting position with rifle at the shoulder, and keeping the eye on the target while reloading. The second period covers instruction in bolt manipulation in the sitting and prone positions, loading the second clip, and method of assuming the sitting and prone positions. In subsequent instruction periods the men under instruction are required to rehearse the firing of rapid-fire strings. These rehearsals or dummy runs are at first made without time limit and without the use of any ammunition. The practice is followed by dummy runs using dummy ammunition. One man in each pair is required to make five dummy runs in succession, while the other man acts as coach. The men of the pair then exchange places for the next five dummy runs. This alternation of duties at the end of five dummy runs is continued until the end of the period.

SECTION IX

SIGHT SETTING AND EXAMINATION ON PREPARATORY EXERCISES

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19-113. *RANGE AND WIND-GAUGE SCALES.*—*a.* The rear sight of the service rifle is movable both in elevation and in deflection. The elevation scale is marked in hundreds of yards. The numbers on the range scale refer to the marks which are immediately below them. The wind-gauge, or deflection scale is marked in “points.” There are no numbers on the wind-gauge scale and the number of points set on the scale must be counted from one of the two zero marks on the rear sight base.

b. Moving the rear sight to the right causes the shot to move toward the right side of the target. Moving the rear sight to the left causes the shot to move toward the left side of the target. Raising the rear sight raises the shot on the target. Lowering the rear sight lowers the shot on the target.

19-114. *ELEVATION RULE.*—Raising the rear sight 100 yards raises the shot on the target by a number of inches equal to the square of the number of hundreds of yards in the range. Thus at 600 yards raising the sight 100 yards would raise the shot 6 x 6 or 36 inches on the target. Raising the sight 50 yards has one-half the effect of raising it 100 yards. Lowering the sight 100 yards has an equal but opposite effect to that caused by raising the sight 100 yards.

19-115. *WIND-GAUGE RULE.*—Moving the rear sight one-quarter of one point to the right moves the shot toward the right side of the target by a number of inches equal to the number of hundreds of yards in the range. Moving the rear sight to the left one-quarter of one point moves the shot to the left by a number of inches equal to the number of hundred yards in the range. A movement of a full

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point on the wind-gauge has four times the effect of a movement of only one-fourth of a point. The rule as usually expressed is: A quarter point on the wind-gauge equals 1 inch (on the target) for each 100 yards (in the range). Thus at 500 yards one-half of a point right on the wind-gauge moves the bullet 2×5 or 10 inches to the right on the target.

19-116. *WIND EFFECTS*.—The deflection caused by the wind is the only weather effect that need be considered. Winds from the right blow the bullet to the left and require the rear sight to be moved to the right. Left winds have an opposite effect. In order to correct for the effect of the wind it is necessary to move the rear sight into the wind.

19-117. *WIND CLOCK*.—On the rifle range the firer is considered to be at the center of an imaginary clock face and the target is at 12 o'clock. The direction from which the wind is blowing is denoted by the hour on the imaginary clock face. Thus a wind straight up the range from the target is a 12 o'clock wind. A wind from the right, perpendicular to the line of fire, is a 3 o'clock wind. Winds from 1, 5, 7, and 11 o'clock have only one-half the effect of those from 3 or 9 o'clock. Winds from 2, 4, 8, and 10 o'clock have 85 percent of the effect of those from 3 or 9 o'clock.

19-118. *WIND CORRECTION*.—To determine the number of quarter points correction required for a 3 or 9 o'clock wind, multiply the number of miles per hour in the wind velocity by the number of hundreds of yards in the range and divide by 20. Thus a 9 o'clock wind of 15 miles an hour on the 500-yard range would require 15×5 divided by 20 or 3.75 quarter points of left windage. If the wind had been from 7 o'clock the correction would have been one-half that or about 2 quarter points. If the wind had been from 8 o'clock the correction would have been slightly less than from 9 o'clock or about 3 quarter points. The wind corrections as determined in this article are for the M-1 ammunition now used for target practice. For the 150 grain bullet they are about twice as large.

19-119 *ZERO OF THE RIFLE*.—If when firing at 500 yards it is found that the sight bar elevation required to hit the bull's-eye is 450 yards, the normal elevation is said to be 450 yards for that range. Similarly if when firing in a calm at 500 yards it is necessary to use three-quarters of a point left wind, the zero of the rifle is said to be three-quarters left at 500 yards. The normal elevation and zero vary with different rifles; with different men firing the same rifle; and with

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the same rifle and same firer the zero may vary with the range. The normal elevations and zeros are determined and their values recorded during the practice firing. In making corrections for the effect of the wind, the value of the zero must be added to or subtracted from the correction. Thus with a 15-mile wind from 8 o'clock on the 500-yard range the correction is three-quarter points left. With a zero of one-half left the wind-scale setting would be five-quarter points left. With a zero of one-half point right the wind-gauge setting would be one-quarter point left.

19-120. *INSTRUCTION IN SIGHT SETTING.*—The instruction starts with an explanation and demonstration. One man of each pair is then directed to make various settings of the range and wind-gauge scales. The other man of the pair checks the settings made. The work of the men in the pairs is alternated after 10 settings have been made by one man. The instruction is followed by requiring the sights to be moved to correct for various errors of the shot on the target. These problems should be prepared ahead of time. The general statement of the problem should be somewhat as follows:

You are firing at 500 yards, your normal elevation is 450 yards and the zero is one-half right. The first shot strikes 25 inches low and 12 inches left. Set the sights so as to bring the next shot into the center of the bull's-eye.

Ten problems are given to each man. These problems are followed by others which require the calculation of the correction for the effect of the wind. The statement of these problems should be somewhat as follows:

(1) "You are firing prone at 200 yards. Your normal elevation is 250 yards. Your zero is one-quarter point left. There is a 10-mile wind from 9 o'clock. Set the sights for the first shot.

(2) The first shot strikes 10 inches high and 6 inches left. Change the sights to put the shot in the center of the bull's-eye."

Ten of these problems are given to each man.

19-121. *EXAMINATION ON PREPARATORY EXERCISES.*—After the completion of the preparatory exercises and before starting range instruction the men are given an examination along the following lines.

a. Sighting and aiming.—

Q. In aiming with the peep sight, where is the tip of the front sight?

A. In the center of the peep.

Q. In aiming with the open sight, where is the tip of the front sight?

SIGHT SETTING AND EXAMINATION ON PREPARATORY EXERCISES

A. In the same place. The top of the circle is removed, so that the top of the front sight just comes even with the top of the rear sight bar.

Q. In aiming with either open or peep sight, where is the bottom of the bull's-eye?

A. Just touching the top of the front sight. The whole bull's-eye is in the upper half of the peep or above the bar of the open sight.

Q. Now take this sighting bar and adjust the peep sights properly. Now the open sights. (These adjustments are verified by the instructor.)

b. Positions.—

Q. How do you breathe while aiming?

A. Take a normal breath, let out a little of it and hold the rest by closing the throat.

Q. When do you take up the slack of the trigger?

A. As soon as I am in position and while I am aligning the sights.

Q. Show me how you get into the sling. (Verified by the instructor.)

Q. Assume the prone position, the sitting position, the standing position. (Verified by the instructor.)

c. Trigger squeeze.—

Q. How do you squeeze the trigger?

A. I squeeze the trigger with such a gradual increase of pressure that I do not know the exact instant that the rifle will go off.

Q. What do you know while squeezing the trigger?

A. I know that the sights are lined on the bull's-eye.

Q. What do you try to do just before squeezing the trigger?

A. I try to relax as much as possible.

Q. What do you try to see just as the rifle goes off?

A. I try to see just where the sights are pointing so that I can call the shot.

Q. How do you squeeze the trigger in rapid fire?

A. In the same way as in slow fire.

Q. Do you have to hurry the trigger squeeze in rapid fire?

A. No.

d. Rapid fire.—

Q. How do you gain time for aiming and for the trigger squeeze in rapid fire?

A. I gain time by taking the position rapidly, working the bolt rapidly, and by keeping my eye on the target while working the bolt.

Q. How does keeping your eye on the target help you to gain time?

EXAMINATION ON PREPARATORY EXERCISES

A. A man who looks into the chamber while working the bolt, works it slowly so as to see the cartridge. He also loses time in finding his own target again.

Q. Show me how you work the bolt in rapid fire in the prone position; the sitting position. (Verified by the instructor.)

Q. Show me how you load the second clip in rapid fire, prone; sitting. (Verified by the instructor.)

e. Sight setting.—

Q. When you move the rear sight, which way does it move the shot on the target?

A. In the same direction as the rear sight is moved.

Q. How much change on the target is caused by moving the wind gauge one-half of a point?

A. Two inches for each hundred yards of the range.

Q. How much change on the target is caused by moving the sight 100 yards in elevation?

A. Multiply the number of hundred yards in the range by itself. The result is the number of inches the shot is moved.

Q. I place this spotter here on this target. The range is 500 yards. Your sights are now set for 500 yards and zero wind. Change your sights to move the shot to the center. (Verified by the instructor.)

Q. What is a 5 o'clock wind?

A. A wind 15° on my starboard quarter when I am facing the target.

Q. What effect does a 5 o'clock wind have?

A. It blows the bullet to the left half the distance that the same strength wind from 3 o'clock would blow it.

Q. How do you find the correction for wind?

A. The number of quarter points for a 3 or 9 o'clock wind is equal to the wind velocity in miles per hour multiplied by the number of hundreds of yards in the range and divided by 20. Winds from 1, 5, 7, and 11 o'clock have only half the effect of 3 and 9 o'clock winds; those from 2, 4, 8, and 10 o'clock have 85 percent of the effect of 3 or 9 o'clock winds.

f. Care.—

Q. How do you clean the rifle?

A. I first swab the bore with rags saturated with water or powder solvent; I then dry the bore with dry rags; I oil the bore with a light film of oil to prevent rust.

g. Safety precautions.—

Q. How do you know that the rifle is unloaded?

SIGHT SETTING AND EXAMINATION ON PREPARATORY EXERCISES

A. I look in the chamber and in the magazine as soon as I pick it up.

Q. How do you carry the rifle when not on the firing line?

A. With the bolt open.

Q. At what things do you point the rifle?

A. I point the rifle only at those things that I want to shoot.

SECTION X

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19-122. REQUIREMENTS FOR ACCURATE PISTOL SHOOTING.—*a.* Accurate pistol shooting requires that:

- (1) The pistol be properly grasped by the hand.
- (2) The sights be properly aligned with each other and with the bull's-eye.
- (3) The pistol be so held that the sight alignment is maintained while the trigger is squeezed.
- (4) The trigger be squeezed in such a manner as not to cause a derangement of the aim.

b. The preparatory exercises in pistol shooting take up the above requirements in order. Additional exercises are then given in timed and rapid fire. Instruction in safety precautions, nomenclature, care and preservation are given during the course of the preparatory exercises, at the discretion of the officer in charge of the instruction, but prior to the examination or the range firing.

PREPARATORY EXERCISES—PISTOL

19-123. *METHODS OF PISTOL INSTRUCTION.*—The methods of instruction follow closely the methods prescribed for the rifle instruction in preceding chapters. The men to be instructed are divided into groups of convenient size and a group instructor appointed for each group. The men of each group work together in pairs, one man going through the exercises as the firer while the other man acts as coach. At frequent intervals the members of the pairs are required to exchange places so that they alternate as firer and coach. Each period of the instruction begins with an explanation and a demonstration of the work for the period. The men then proceed with the prescribed exercises under the supervision of the instructors.

19-124. *SIMPLICITY OF PISTOL SHOOTING.*—The difficulty of pistol shooting has been much exaggerated. The position is necessarily somewhat less steady than the rifle positions. Because of the shorter sight radius of the pistol, errors of sight alignment cause greater angular displacement of the shot. Due, however, to the shorter range at which the pistol is used, and to the fact that the pistol targets are relatively much larger than the rifle targets, it is no more difficult to qualify with the pistol than it is to qualify with the rifle. Any officer or man who gives proper effort and attention to the prescribed exercises and instructions can qualify with the pistol.

19-125. *GRASPING THE PISTOL.*—The hand is as high up on the stock as it will go. The barrel is in the prolongation of the arm. The thumb, including the submerged joint is entirely to the left of the pistol. The thumb is straight and is parallel to the bore of the pistol. This position of the hand feels somewhat awkward at first, and new men must be watched to see that they do not place the thumb across the rear of the stock. The pressure of the hand on the stock is firm but not hard. The correct pressure is best illustrated by the instructor grasping the hand of the man under instruction. The handclasp should be about that used in greeting a friend. Too great a pressure causes a tremor of the muscles and tires the firer unnecessarily. Too light a pressure allows the pistol when fired to change its position in the hand and causes a loss of time in firing a second accurately aimed shot.

19-126. *INSTRUCTION IN GRASPING PISTOL.*—The instructor explains the correct method of grasping the pistol and demonstrates it. The firers are then required to take up the pistols and to fit them into their right hands, in the correct manner. The firer's left hand should be used to assist in settling the pistol well back into the

INSTRUCTION IN GRASPING THE PISTOL

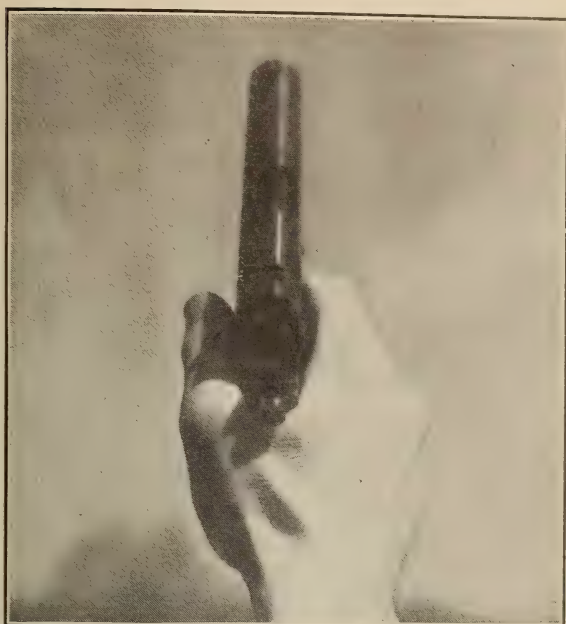


FIGURE 8.—Correct grasp (rear view).



FIGURE 9.—Correct grasp (side view).

PREPARATORY EXERCISES—PISTOL

fork of the hand. As soon as the firer's grasp is seen to be correct, he is required to lay the pistol down, and to again place it properly in his hand. This practice is continued until each firer has had 10 trials, being coached meanwhile by the other member of his pair. The coach and firer of each pair then exchange places for the next 10 trials. This alternation is continued.

19-127. *SIGHTING AND AIMING*.—The instructor starts by explaining the correct alignment of the sights and demonstrates the correct alignment by means of diagrams and by means of the sighting bar, using the open sight. The correct alignment of the open sight is illustrated in Figure 1, Section VIII. The sighting bars, with sights correctly adjusted on the bull's-eye, are passed around to all men under instruction. The sights of the sighting bar are then thrown out of alignment and each man required to make 10 trials in correcting the sight alignment. No further special exercises in sighting and aiming need be given, but during the explanations and demonstrations of subsequent periods, the instructor should emphasize the necessity for the correct aim and should illustrate it by means of a diagram.

19-128. *POSITION OF THE BODY*.—The firer faces nearly at right angles to the line of fire. The feet are placed about 15 inches apart. The weight is equally distributed on both legs. The hips are slightly forward and muscles of the diaphragm relaxed. No effort is made to hold the abdomen in. The right arm is fully extended, and the right shoulder slightly raised. The head is turned so as to see the target through the sights. The ease with which the head can be turned to see the sights determines how far the body is faced to the left. There should be no strain on the neck muscles. The head is balanced on the neck in an upright position. The whole position with the exception of the right arm is one which can be maintained with the least muscular effort. The body is balanced rather than held in position. The muscles of the right shoulder and arm are necessarily somewhat hardened in order to sustain the weight of the pistol and to maintain the correct pressure of the hand. Excess hardening of the muscles should, however, be avoided. Whatever tension there is on the muscles of the right arm and hand should be maintained, even after the hammer falls. This will be found to assist in getting off a second shot quickly. The left hand may be placed at the waist or may hang naturally at the side.

19-129. *INSTRUCTION IN POSITION*.—The instructor explains the positions of the various parts of the firer's body and illustrates this by himself assuming the position. The men are then

CORRECT METHOD OF BREATHING

required to take the position and are coached until their positions are correct. As soon as the position is correct the firer is required to lay down the pistol, and then to repeat the taking of the position. Each firer is given 10 trials in assuming the position, being coached by the



FIGURE 10.—Position of the body.

other member of his pair. The coaches and firers then exchange places and continue to alternate until the end of the period.

19-130. *CORRECT METHOD OF BREATHING.*—*a.* When firing slow fire the following procedure is followed for each shot.

(1) When in position and the sights approximately aligned on the bull's-eye take a normal breath.

(2) Hold this breath by closing the throat, and without effort of the muscles of the diaphragm.

PREPARATORY EXERCISES—PISTOL

b. In rapid fire, the breath is held as above but all shots of the string are fired on one breath.

c. In timed fire the first three shots are fired on one breath. After the third shot a second, shorter, breath is taken and held as in *a* above.

19-131. *TRIGGER SQUEEZE*.—*a. Importance*.—This is the most important part of the process of pistol shooting. All that has gone before is merely a preparation for the act of squeezing the trigger. The use of the correct grasp and the correct position of the body allows the firer to give undivided attention to the squeezing of the trigger. When the correct method of squeezing the trigger has been mastered qualification is assured.

b. *Correct method*.—The pressure on the trigger is applied straight back in a line parallel to the bore, and is applied gradually, without jerks. The fact that the pressure is a gradually increasing one does not mean that the increases are applied slowly, but that they are applied smoothly, and in such a manner that the firer will not know the exact instant that the pistol will fire. During the squeezing of the trigger there should be little if any increase in the pressure applied by the last three fingers of the hand grasping the pistol. The thumb, which is extended along the frame, is pressed firmly against the side of the frame. The sidewise pressure of the thumb may be slightly increased (or decreased) during the squeeze to counteract any observed tendency of the sights to move out of alignment.

19-132. *FIRST INSTRUCTION IN TRIGGER SQUEEZE*.—The instructor explains the correct trigger squeeze and demonstrates it by himself going through the exercise. He then illustrates the method of applying the pressure on the trigger by grasping the left hands of the men under instruction. The first three fingers of the man's hand are grasped as if they were the stock of the pistol. The instructor's forefinger is placed outside of the man's fourth finger which represents the trigger. The instructor's thumb presses against the palm of the man's hand. The instructor now simulates the squeezing of the trigger. Care should be used to see that the correct, firm grip is obtained first, and that then after a definite pause the trigger pressure is applied.

19-133. *SECOND INSTRUCTION IN TRIGGER SQUEEZE*.—The instructor takes the firing position with the pistol properly grasped and, aiming at the sky or other blank background, squeezes the trigger while keeping the sights aligned with each other. The firers and coaches are each provided with pistols and alternate with each other in this procedure. The firer looks only at his sights,

THIRD INSTRUCTION IN TRIGGER SQUEEZE

which should be outlined against the sky or other blank background. The firer endeavors to squeeze the trigger in such a manner that there is no disturbance of the sights when the hammer falls. The coach watches the firer's eye to see if it closes before the hammer clicks. No limit is placed on the time required to squeeze the trigger. The firer and coach alternate after each shot, and the exercise is continued until each has simulated 20 shots.

19-134. *THIRD INSTRUCTION IN TRIGGER SQUEEZE.*—

A number of aiming targets are provided. These targets must be large enough so that there is little difficulty in holding on them. The bull's-eyes of B targets at a range of 50 feet are satisfactory. The instructor now explains to the men under instruction that they are to keep their sights in line with each other while the trigger is being squeezed but are not to try to keep on the bull's-eye. The object of the practice is to be able to call the shot after the hammer has fallen. The instructor then demonstrates the method of grasping the pistol, taking the firing position, aiming, and squeezing the trigger. The firers take up the pistols, obtain the proper grasp, assume the position and aim at the target. While the sights are being aligned, a light firm pressure is applied on the trigger. The firer now gives his attention to squeezing the trigger with a gradually increasing pressure. While squeezing the trigger, the firer disregards the unsteadiness of his hand, and continues increasing the pressure so long as the two sights are properly aligned with each other. The pressure on the trigger being gradually applied, the firer does not know the exact instant the hammer will fall. When it does fall, the firer notes the point on the target at which the sights are aligned and calls the position of the shot. No effort is made to keep the sights pointed at the bull's-eye. The firer merely notes the point, on which the sights are aligned, so that he may be able to call the shot. During the trial, the coach notes the firer's grasp, position, and particularly his method of squeezing the trigger. After 10 trials the firer and coach interchange positions.

19-135. *FOURTH INSTRUCTION IN TRIGGER SQUEEZE.*—

The same aiming targets are provided as in paragraph 19-134. The instructor explains that in this exercise the object is to squeeze the trigger while the sights are aligned on some part of the bull's-eye. The usual demonstration is given by the instructor and the exercise begins. The firer now gives his attention to squeezing the trigger and continues to gradually increase the pressure on the trigger so long as the sights are aligned on any part of the bull's-eye. Small vibrations of the sights are disregarded. When the sights move off

PREPARATORY EXERCISES—PISTOL

of the bull's-eye, the pressure on the trigger is held. When the sights again come on, the pressure is again increased. Each firer is given 10 trials, and the firer and coach then exchange places.

19-136. *TIMED FIRE*.—In timed fire with the pistol, the firer proceeds as in slow fire until the first shot is fired. The tension of the muscles of the arm and hand is maintained during the recoil, and the flexing of the elbow and wrist resisted thereby. The whole arm moves up with the recoil, with some unavoidable bending of the wrist. As soon as possible after the shot, the firer releases the trigger, starts bringing the sights on the bull's-eye by the shortest route, and again starts to apply pressure on the trigger. By the time the sights are again aligned there should be considerable pressure on the trigger. Exactness of the aim should not be required in the early exercises. Emphasis is placed on the correct trigger squeeze. The two sights must, however, be properly aligned with each other and the firer must be able to call the shots.

19-137. *INSTRUCTION IN TIMED FIRE*.—Each man is provided with a piece of strong cord four feet long. One end of this cord is tied to the hammer of the pistol and the other end is held in the left hand. The instructor explains the exercise and demonstrates the use of the cord. The aiming position is assumed and the trigger squeezed as for the first shot. The instructor now gives a strong jerk on the cord with the left hand. This recocks the pistol and disturbs the aim, in somewhat the same manner as does the recoil. The instructor now brings the sights on for the next shot and continues the procedure until seven shots have been simulated. The firers take up the pistols and carry out the exercise. The alternation of firer and coach should take place after two strings of 7 shots each. No time limit is placed on the firing of any one string. Men who have difficulty in getting the shots off quickly should, at first, be permitted to complete a trial with less than 7 shots.

19-138. *RAPID FIRE*.—This is essentially the same as timed fire. The method of firing is the same. Men should not be advanced to the practice of rapid fire until they have acquired considerable facility in timed fire. As in timed fire the emphasis is placed on the correct trigger squeeze and the sight alignment. Exactness of alignment on the bull's-eye should not at first be required. In rapid fire, the breath is held throughout the firing of the 7-shot string. The tension of the muscles of right arm and hand is maintained throughout the string. As soon as one shot is fired the trigger is released and the squeeze for the next shot begun while the aim is being perfected.

INSTRUCTION IN RAPID FIRE

By the time the sights are on the bull's-eye there should be almost enough pressure on the trigger to fire the pistol.

19-139. *INSTRUCTION IN RAPID FIRE*.—The instruction in rapid fire is similar to that for timed fire. The only differences being the increased rate of fire and the fact that all shots of a string are fired on one breath. Rapid-fire instruction follows naturally after timed-fire instruction. The instructor must avoid trying to advance the men too quickly to the rapid-fire stage. Considerable harm may be done by requiring the men to take up the rapid-fire exercise before they acquire facility in timed fire.

19-140. *AIMING OFF*.—The sights of the pistol allow little adjustment. The rear sight may be tapped to one side by means of a bronze hammer, but this adjustment is a semipermanent one. Continued movement of the rear sight will cause it to become loose in its seat. It will usually be found that it is necessary to aim at some other point than the bottom edge of the bull's-eye in order to allow for the individual peculiarities of the pistol. This being so, the instructor should, if time allows, exercise the men in aiming at designated points other than the bottom edge of the bull's-eye.

19-141. *NOMENCLATURE*.—Only such instruction in nomenclature as is necessary to enable the men to follow instructions need be given. No special period need be devoted to this subject. The instructor, from time to time, points out and names such parts as are necessary for a complete understanding of the work at hand. For details of nomenclature and functioning see OP68.

19-142. *CARE AND PRESERVATION*.—The pistol should be dismounted after firing and all parts thoroughly cleaned. The bore is cleaned with water or powder solvent, thoroughly dried, and given a light coat of oil. All working surfaces are coated with light oil and the pistol reassembled. Men should be instructed in the proper way to disassemble and assemble the pistol, but need not be required to learn the names of all the various parts. In order to guard against possible eye injuries, men will be instructed always to exercise special care to keep the pistol pointed away from themselves and all other persons when removing or replacing the recoil spring and plug. For details of care and preservation see OP68.

19-143. *SAFETY PRECAUTIONS*.—*a*. A long list of safety precautions should be avoided. The few precautions ordered should, however, be rigidly enforced. The following precautions are sufficient.

(1) On taking up a pistol examine it to see if it is loaded. To do this, first remove the magazine then draw back the slide.

(2) Never lay down a loaded pistol.

PREPARATORY EXERCISES—PISTOL

(3) Never turn around on the firing line until the pistol has been unloaded and the slide locked open.

(4) On the range keep the slide open until on the firing line and ready to shoot.

(5) In clearing a jam, always remove the magazine first.

(6) Never point the pistol at anything unless you want to shoot it.

b. When the pistol is carried on ordinary occasions, as at drill, it will be carried in the holster completely unloaded (with empty magazine and empty chamber). When the nature of the duty requires a moderate degree of readiness for action the pistol may be ordered carried unloaded but with filled magazine (hammer lowered on an empty chamber and then a filled magazine inserted). On emergency duty requiring a high degree of readiness, it may be carried fully loaded (chamber loaded, hammer back, safety lock engaged and six rounds in magazine). When carried fully loaded a tendency for the safety lock to become disengaged during withdrawal may be anticipated. This tendency may be reduced by rotating the stock of the pistol away from the leg during the operation of withdrawal.

19-144. *EXAMINATION*.—The examination of the men under instruction with the pistol is to a considerable extent a visual inspection by the instructor. The instructor assures himself, by observing the men, that they grasp the pistol properly and that they assume the proper position. The men are required to simulate the firing of the various stages. During this simulated fire the instructor particularly notes the firer's eye and the motion of the pistol as the hammer falls. In the oral examination the men are required to explain—

- (1) The correct method of breathing.
- (2) The correct method of aiming and aligning the sights.
- (3) How to hold off to correct for errors in the sight adjustment.
- (4) How to care for the pistol.
- (5) The safety precautions.

SECTION XI

PREPARATORY EXERCISES—MACHINE GUN AND AUTOMATIC RIFLE

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19-145. *SCOPE*.—These instructions cover only the methods of aiming, the positions and the firing at fixed targets. Prior to receiving the instruction herein prescribed, the men under instruction shall be thoroughly trained in the methods of:

(1) Stripping, assembling, and, in the case of machine guns, head-space adjustment (OP 113, 114, and 406).

(2) Care, cleaning, and points to be observed before and after firing (OP 113, 114, and 406).

(3) Immediate action (OP 113, 114, and 406).

(4) Functioning (OP 113, 114, and 406).

(5) Stoppages (OP 113, 114, and 406).

(6) The preparatory exercises for the service rifle (LFM, Chapter 19, Section VIII).

19-146. *SIGHTING AND AIMING*.—*a*. With the machine gun the correct method of aiming is the same as that described for the rifle. (See par. 19-85.)

b. With the automatic rifle the sights are aligned with each other in the same manner as that described for the rifle (par. 19-85). Since the automatic rifle is not provided with a wind gage, it will usually be necessary to hold to one side of the point that it is desired to hit. The tip of the front sight should, however, always be kept in the center of the peep.

19-147. *INSTRUCTION IN SIGHTING AND AIMING*.—The first instruction in sighting and aiming is to explain and to illustrate the correct sight alignment by means of the sighting bar (par. 19-87). The second exercise consists in making sighting triangles as described in paragraph 19-88b, using the automatic rifle with box rest or the machine gun and its mount, instead of the rifle.

PREPARATORY EXERCISES—MACHINE GUN AND AUTOMATIC RIFLE

19-148. *POSITIONS*.—*a. Machine gun*.—The sitting position will be used in firing the machine gun course of these instructions. The gunner takes position directly behind the piece. The sitting position used is similar to the sitting position for firing the rifle (par. 19-97). The gunner's elbows are braced against the inner sides of the legs. The gunner's left hand rests lightly on the top of the grip and the right hand grasps the stock lightly with the forefinger on the trigger. The pressure exerted by the hands on the stock is only that necessary to press the trigger properly. The weight of the arms must be supported by the legs and not by the gun or mount. The gunner does not attempt to prevent the vibration of the gun when firing. For firing the Lewis machine gun the prone position, illustrated in O. P. 406, will be used in lieu of the sitting position.

b. Automatic rifle.—Only two positions are prescribed:

(1) *Prone position*.—This position is the same as the prone position with the rifle (par. 19-95) except that, due to the shorter stock of the automatic rifle, the firer lies at a lesser angle to the line of fire. The sling is used as with the rifle.

(2) *Sitting position*.—This position and the use of the sling is the same as that used with the rifle (par. 19-97).

19-149. *INSTRUCTION IN POSITIONS*.—The instructor explains and demonstrates each position. The firers are required to assume the position repeatedly, each being coached by the other member of his pair. After 10 trials the coach and firer exchange places.

19-150. *SIGHT SETTING INSTRUCTION*.—The instructor explains the use of the sight and demonstrates the various settings. The firers are each required to make 10 settings of the sights as directed by the instructor. The coaches and firers then alternate for the next ten settings.

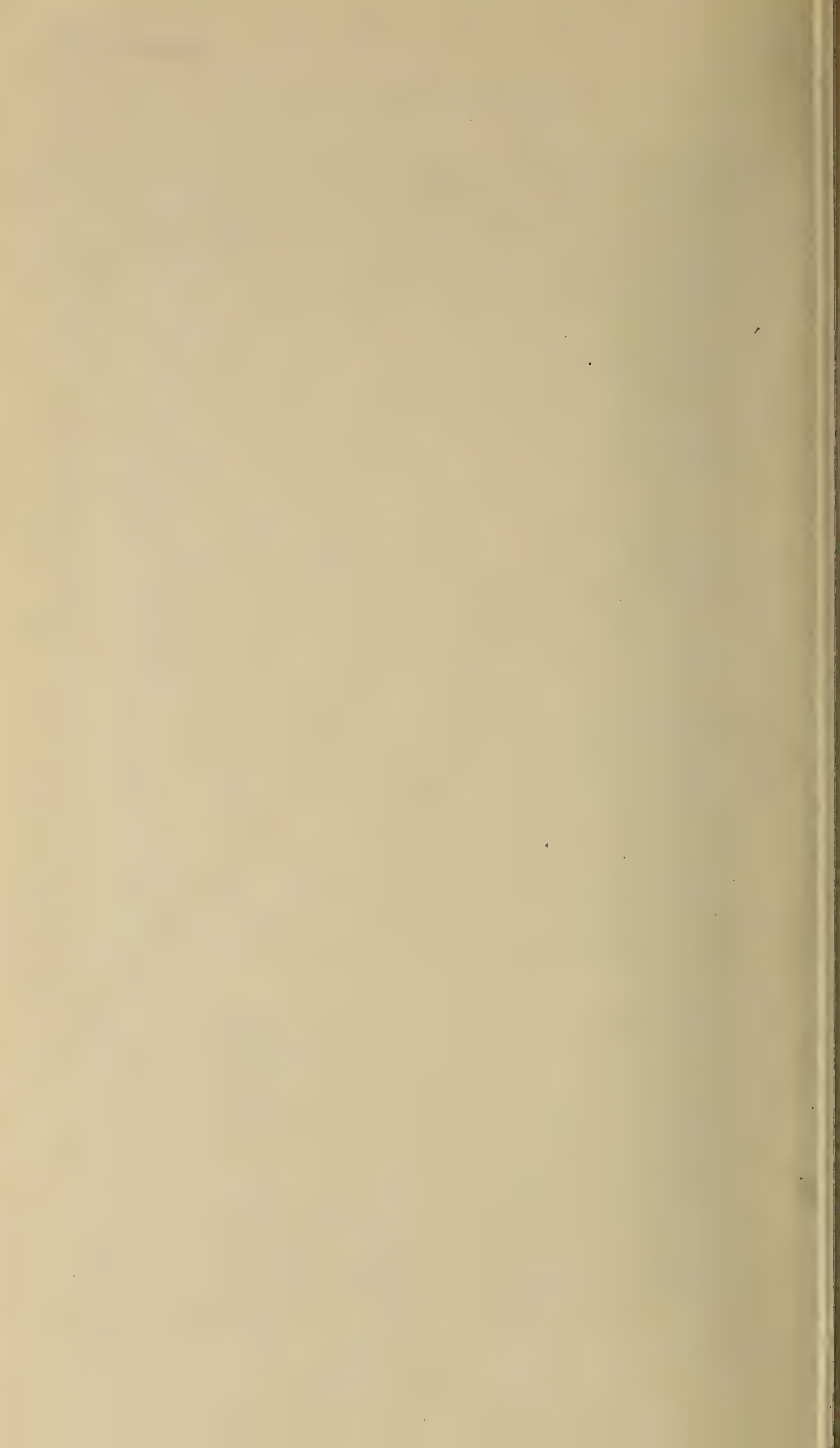
19-151. *EFFECT OF SIGHT CHANGES*.—*a. Machine gun*.—For all practical purposes the effects of sight changes on the machine gun are the same as similar changes on the sights of the rifle.

b. Automatic rifle.—The effects of sight changes in elevation are the same for the automatic rifle as for the rifle (par. 19-114). The effect of the wind on the bullet is the same as for the rifle; but since there is no wind gage, the automatic rifle must be aimed to one side in order to correct for the effect of the wind. To determine the effect of 3 or 9 o'clock winds for M-1 ammunition:

- (1) Square the number of hundreds of yards in the range.
- (2) Multiply this by the miles per hour in the wind velocity.
- (3) Divide by 20.

EFFECT OF SIGHT CHANGES

The result is the number of inches that the shot is deflected by the wind. The automatic rifle must be aimed *up wind* by this amount in order to correct for the effect of the wind. As with the rifle, winds from 1, 5, 7, and 11 o'clock have one half the effect of those from 3 or 9 o'clock; those from 2, 4, 8, and 10 o'clock have 85 percent of the effect of those from 3 or 9 o'clock.



SECTION XII

RANGE INSTRUCTION AND SCHEDULES

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19-152. *ORGANIZATION FOR RANGE INSTRUCTION.*—

a. Range instruction shall not be commenced until thorough instruction in the preparatory exercises has been completed. Range instruction should, however, follow immediately after completion of the preparatory exercises and should immediately precede the record practice.

b. During range instruction the men to be trained are divided into relays. The number in each relay is determined by dividing the total number of men by the number of targets available. From four to six relays can be readily handled during the range instruction. Eight relays can be handled with difficulty and more than eight relays cannot be handled satisfactorily. Employment of the various relays is prescribed in paragraph 19-25. Details for the various relays, special details, courses to be fired, etc., should be prepared before arrival at the firing line. The pit detail should be started out ahead of time and should be well supplied with paste, pasters, spotters, extra target centers, stop watches, pit record sheets, and pencils. The telephones should be tested well ahead of time. Men going to the pit should carry filled canteens. The relay designated as scorers is provided with record sheets, pencils, blackboards, and chalk. The target assignment should be made in sufficient time to allow firing to start promptly at the designated time. Rifles are assigned to men by number and a record kept of the number and of the man to whom assigned. The elevations and zero used in firing at the various ranges are also kept on this record.

19-153. *INSTRUCTION STEPS, MARKSMAN'S COURSE.*—

a.—First instruction.—The instructor explains the work to be done during the period, demonstrates the method of blackening the sights

RANGE INSTRUCTION AND SCHEDULES

and the firing at 200 prone, using the sandbag rest. The instructor then demonstrates the method used by the coach in squeezing the trigger while the firer aims. The first relay blackens the sights and then fires 10 shots at 200 yards prone, using the sandbag rest. The coach squeezes the trigger for three or four shots of this string.

b. Second instruction.—The instructor explains the prone position, shows the position, and explains the duties of the coach during the firing. The first relay fires 10 shots slow fire prone at 200, loading from the magazine. The coach fills the magazine and inserts one or more dummy cartridges in each clip. The firer is kept in ignorance of the order in which the dummies and live cartridges are arranged. The coach takes position alongside of the firer and to the right of him. The coach watches the actions of the firer. The coach pays particular attention to the firer's eye.

c. Third instruction.—The instructor explains the sitting position and fires one or two shots in the position. The first relay fires 10 shots slow fire at 200 sitting. The coach takes position on the right side of the firer. If a firer has difficulty in keeping his shots near the bull's-eye and makes wild shots, the coach should load the rifle and introduce an occasional dummy. If the difficulty persists the man should be returned to firing in the prone position or the prone position with the sandbag rest until the difficulty is overcome.

d. Fourth instruction.—The instructor explains the method of firing the rapid-fire stage of the marksman's course, fires one clip, and loads the second clip. The first relay is given two dummy rapid-fire strings and then fires two 5-shot strings. The coach takes position at the right of the firer and notes any defects. The coach does not call attention to the defects noted until the string is completed. The firers should be coached not to look in the chamber while reloading, but to keep their eye on the target.

19-154. *INSTRUCTION STEPS, SHARPSHOOTER AND EXPERT COURSE.*—*a. First instruction.*—The instructor explains the standing position and fires one or two shots. The men under instruction are warned not to try for too great an accuracy in aim during the first few shots. They should concentrate on the trigger squeeze and merely note the point, at which the sights are pointing when the rifle is fired. The object of the practice is to squeeze the trigger properly and to be able to call the shot. The first relay fires 10 shots.

b. Second instruction.—The instructor explains the method of assuming the positions for the rapid-fire stages of the sharpshooter's course and executes one dummy run in each position. The first relay makes two dummy runs "prone from standing" and then fires one string.

INSTRUCTIONS STEPS, PISTOL COURSE

The coach emphasizes the necessity for getting into a good position before starting to fire. The first relay now makes two dummy runs "sitting from standing" rapid fire and then fires one string. The coaches should particularly note the following:

- (1) That the slide screw of the rear sight is well set up so that it will not jar loose, allowing the slide to drop.
- (2) That the sling is properly adjusted.
- (3) That the correct position is assumed.
- (4) That the firer does not close his eye in firing.
- (5) That the firer keeps the rifle to his shoulder when working the bolt.

(6) That the firer keeps his eye on the target and does not look into the chamber while working the bolt.

(7) That the second clip is properly loaded.

c. Third instruction.—The instructor explains the sight adjustments and shows, by actually firing, how changing the sight moves the shot on the target. The instructor points out how the force and direction of the wind may be estimated, by:

- (1) The range flags.
- (2) Movement of grass and branches of trees.
- (3) The drift of smoke, or of grass or bits of paper thrown in the air.

(4) The instructor points out how the "mirage" may be seen through the telescope and how it may be used to estimate the proper wind correction. The instructor demonstrates how the apparent direction of the mirage is reversed by improper adjustment of the telescope.

19-155. *INSTRUCTION STEPS, PISTOL COURSE.*—*a. First instruction.*—The organization and methods are the same as for the range instruction for the rifle. Pistols are assigned to men by number and a record kept of the aiming points used at the different ranges. The instructor first repeats the safety precautions. The instructor then explains and demonstrates how to blacken the sights and the firing of slow fire. The instructor sees that all men have cotton for their ears and use it. Blank targets without bull's-eyes are provided for the first firing. The men are instructed to concentrate on the trigger squeeze and to keep their sights in line. No attempt is made to keep the shots in the center of the target. The first relay blackens the sights and fires 10 shots. The coach stands on the left of the firer and loads the magazine used by the firer. The coach introduces occasional dummies into the magazine without the firer knowing the order in which they are loaded.

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b. Second instruction.—The instructor explains that the object of the exercise is to practice the trigger squeeze and not to make a high score. The B targets are used. The first relay is instructed to fire 10 shots slow fire at 25 yards. They are instructed to concentrate on the trigger squeeze and not to try for a good score. So long as they can call the shots accurately the object of the practice is accomplished. The coach takes position on the left of the firer and loads the magazines. The coach introduces an occasional dummy cartridge into the magazine.

c. Third instruction.—The first relay fires 10 shots slow fire at 25 yards.

d. Fourth instruction.—The instructor explains and demonstrates the firing of timed fire. The first relay is instructed not to try for too great accuracy at first, but to keep the sights lined with each other and to concentrate on the trigger squeeze. The coach is on the left. The first relay fires two strings.

e. Fifth instruction.—The instructor explains and demonstrates the firing at rapid fire. The first relay makes several dummy runs with an increased time allowance. The first relay fires two strings with an increased time allowance. The firers are told to concentrate on the trigger squeeze and not to try for too great accuracy at first.

19-156. *ORDER OF INSTRUCTION.*—The order in which the foregoing instructions are given may be varied as conditions warrant, but an order approximately that given in paragraphs 19-153, 19-154, and 19-155 will ordinarily produce the best results. After each of the steps in pistol instruction the men should fire normal 7-shot strings for the class of fire being practiced.

19-157. *INSTRUCTION SCHEDULES—RIFLE.*—The schedules which follow have been used with excellent results. They are printed merely as an aid to instructors and may be modified as conditions warrant.

a. Preparatory exercises.—

(1) Two periods per day available.

MONDAY—A. M.

Explanation and demonstration.
Exercise with sighting bar.

MONDAY—P. M.

Exercise with rifle rests—Sighting triangles.
Shoulder and elbow pads.

TUESDAY—A. M.

Explanation and demonstration.
Use of sling—Breathing—Taking up the slack.
Prone position and method of assuming.

TUESDAY—P. M.

Prone position—Sandbag rest—Sitting position.

INSTRUCTION SCHEDULES—RIFLE

WEDNESDAY—A. M.

Explanation and demonstration.
Trigger squeeze in prone position with sandbag rest.

WEDNESDAY—P. M.

Trigger squeeze in prone position.
Sitting and standing positions.

THURSDAY—A. M.

Explanation and demonstration.
Trigger squeeze in prone and sitting positions.

THURSDAY—P. M.

Standing position—Sight-setting exercises.

Trigger squeeze in all positions—Bolt manipulation.

FRIDAY—A. M.

Explanation and demonstration.
Bolt manipulation with rifle at shoulder, all positions.

FRIDAY—P. M.

Loading second clip.—Sight-setting exercises.
Dummy runs at rapid fire.

SATURDAY—A. M.

Explanation.
Dummy runs at rapid fire.
Examination.

(2) Only one period per day available.

MONDAY

Explanation and demonstration.
Exercise with sighting bar.
Use of rifle rests—Method of padding.

TUESDAY

Explanation and demonstration.
Sighting triangles.
Use of sling—Breathing—Taking up the slack.
Prone position and method of assuming.

WEDNESDAY

Explanation and demonstration.
Prone position—Sandbag rest.
Sitting position.

THURSDAY

Explanation and demonstration.
Trigger squeeze in prone position, using sandbag rest.
Trigger squeeze in prone position.
Sitting position—Standing position.

FRIDAY

Explanation and demonstration.
Trigger squeeze in all positions.
Bolt manipulation—Sight setting.
Bolt manipulation, rifle at shoulder, sitting.

SATURDAY

Explanation and demonstration.
Bolt manipulation, rifle at shoulder, all positions.
Loading second clip—Dummy runs.

MONDAY

Explanation and demonstration.
Position exercise all positions (review).
Trigger squeeze all positions (review).
Dummy runs at rapid fire.

TUESDAY

Explanation and demonstration.
Dummy runs at rapid fire.
Examination.

b. Range instruction.—

(1) One week on range available. Where only one week on the range is available it is inadvisable to attempt to put all men through

RANGE INSTRUCTION AND SCHEDULES

both the A and B courses. After the second days' firing two lists should be made. The names of those who are to fire only the marksman's course are on List 1 and the names of those who appear likely to qualify as high marksmen, and are to fire the sharpshooter and expert course, are on List 2. Should any man on List 2 fail to qualify when firing the marksman's course, he will not be permitted to fire the sharpshooter and expert course.

MONDAY—BOTH LISTS

Explanation.

200 slow fire, sandbag rest.

200 slow fire, prone.

Sight setting exercises—Effects of wind.

TUESDAY—BOTH LISTS

Explanation.

200 slow fire, sitting.

Dummy runs, rapid-fire marksman's course.

Rapid-fire marksman's course.

WEDNESDAY—LIST 1

Explanation.

200 yards slow fire, sitting.

Rapid-fire marksman's course.

WEDNESDAY—LIST 2

200 yards standing.

500 yards slow fire.

Dummy runs, rapid-fire sharpshooter and expert course.

Rapid fire 200, prone from standing.

THURSDAY—LIST 1

Explanation.

Practice all stages marksman's course.

THURSDAY—LIST 2

200 yards standing.

200 rapid fire, sitting from standing.

500 yards slow.

500 yards rapid.

FRIDAY—BOTH LISTS

Explanation.

Record practice—marksman's course (men of second list firing first).

FRIDAY—LIST 2

Rapid fire 200 and 500, sharpshooter and expert course.

SATURDAY—LIST 2

Record practice, sharpshooter and expert course.

(2) Two weeks on range available.

MONDAY

Explanation to assembled command.

200 slow fire, prone—sandbag rest.

200 slow fire, prone.

Sight changing exercises—effects of wind.

TUESDAY

Explanation.

200 slow fire, prone.

200 slow fire, sitting.

Dummy runs, rapid fire, marksman's course.

WEDNESDAY

200 slow fire, sitting.

Rapid fire, marksman's course.

THURSDAY

200 slow fire, sitting.

200 slow fire, prone.

Rapid fire, marksman's course.

FRIDAY

200 slow fire, sitting.

200 slow fire, prone.

Rapid fire, marksman's course.

INSTRUCTION SCHEDULES—PISTOL

SATURDAY

Record practice, marksman's course.

MONDAY

200 slow fire, standing.
 Dummy runs, rapid-fire, sharpshooter,
 and expert course.
 200 rapid fire, prone from standing.
 200 rapid fire, sitting from standing.

TUESDAY

200 slow fire, standing.
 200 rapid fire, prone from standing.
 200 rapid fire, sitting from standing.
 500 slow fire.

WEDNESDAY

200 slow fire, standing.
 200 rapid fire, sitting from standing.
 500 slow fire.
 500 rapid fire.

THURSDAY

200 slow fire, standing.
 200 rapid fire, sitting from standing.
 500 rapid fire.

FRIDAY

Record practice—Sharpshooter and expert course.

SATURDAY

Record practice—Sharpshooter and expert course (for any relays which did not fire on Friday).

19-158. *INSTRUCTION SCHEDULES—PISTOL.*—The following schedules have been used with excellent results. The schedule of preparatory exercises is based on two periods per day. If but one period per day is available, the exercises are taken up in the same order and continued into the second week. When the course of preparatory exercises is completed several days before the range is available, each man should be given at least 20 minutes exercise per day in trigger squeeze, timed and rapid fire.

a. *Preparatory exercises.*—

MONDAY—A. M.

Explanation and demonstration.
 Exercise in grasping the pistol.
 Exercises with sighting bar.

MONDAY—P. M.

Safety precautions.
 Position of body.

TUESDAY—A. M.

Explanation and demonstration.
 Grasping the pistol.

Position of the body.
 Breathing.

TUESDAY—P. M.

Method of squeezing trigger.
 Trigger-squeeze exercise, sky background.

WEDNESDAY—A. M.

Explanation and demonstration.
 Squeezing the trigger, sky background.
 Squeezing the trigger—Bull's-eye target—Calling the shot.

WEDNESDAY—P. M.

Timed-fire exercise—Use of cord.

THURSDAY—A. M.

Explanation and demonstration.
Squeezing the trigger—Sky background.
Timed fire—Exercise.

THURSDAY—P. M.

Squeezing the trigger—Calling the shot.
Timed fire—Exercise.

FRIDAY—A. M.

Explanation and demonstration.
Squeezing the trigger—Calling the shot.

FRIDAY—P. M.

Timed-fire exercise.
Rapid-fire exercise.

SATURDAY—A. M.

Timed-fire exercise.
Rapid-fire exercise.
Examination.

b. Range instruction.—The schedule is based on one week only, since the occasions will be rare on which more time is available.

MONDAY

Explanation and demonstration.
Safety precautions.
Slow fire, 25 yards—Calling the shot.
Care and preservation.

TUESDAY

Explanation and demonstration.
Safety precautions.
Slow fire, 25 yards—Calling the shot.
Care and preservation.

WEDNESDAY

Explanation and demonstration.
Safety precautions.

Timed fire, 25 yards.
Slow fire, 50 yards.

THURSDAY

Explanation and demonstration.
Timed fire, 25 yards.
Slow fire, 50 yards.
Timed fire, 50 yards.

FRIDAY

Explanation and demonstration.
Timed fire, 50 yards.
Rapid fire, 25 yards.

SATURDAY

Record practice.



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