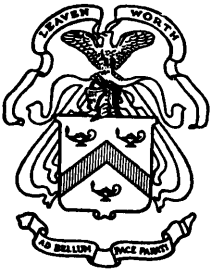
THE COMMAND AND GENERAL STAFF COLLEGE

LIBRARY



Call Number _____

CGSC Form 13 — 11 Dec 72
USACGSC—P5-1498—10M—20 Nov 74

For Review See: R. C. M. W. No._____

Title Cards Completed_____

For Translation See Class_____

99—G. S. Schs., Fort Leavenworth—5-27—25M

General Service and Staff College.

355.07

CADET'S HANDBOOK.

A MANUAL FOR MILITARY STUDENTS AT COLLEGES AND ACADEMIES.

By Captain John A. Lockwood,
U. S. Army.

General Service and Staff College.

6490

PRESS OF
HUDSON-KIMBERLY PUBLISHING CO.,
KANSAS CITY, MO.

Copyright, 1903,
By HUDSON-KIMBERLY PUBLISHING CO.
Kansas City, Mo.

355
.0973
L817c
c.1

General Service and Staff College.

"The effect of compulsory military training upon the German remains with him through life. He walks better, works better, lives a more healthy existence because of it. Much of this benefit could be secured for the youth of the United States by all schools making military drill part of their routine. Besides, such training would greatly increase our reserve force, providing thousands of young men with a certain amount of military knowledge."

—*Major-General Henry C. Corbin, U. S. A.*

LIBRARY
THE GENERAL SERVICE SCHOOLS
FORT LEAVENWORTH, KANSAS

TABLE OF CONTENTS.

CHAPTER I.—Introductory.—Military Colleges..... 9

CHAPTER II.—Discipline.—Duties of Cadet Officers.—Advantages of Military Discipline 13

CHAPTER III.—The United States Army; Its Composition and Organization.—The "Line".. 29

CHAPTER IV.—The Staff and Administrative Departments of the United States Army..... 49

CHAPTER V.—The National Guard.—Duties of Officers.—Constitutional Provisions Regarding the Militia 73

CHAPTER VI.—Orders and Correspondence.—Rosters..... 99

CHAPTER VII.—Flags, Honors, Civil Authority, Arrests..... 108

CHAPTER VIII.—Courts-Martial 119

CHAPTER IX.—Elements of Military Engineering..... 133

CHAPTER X.—Military Hygiene..... 158

CHAPTER XI.—First Aid to the Wounded..... 164

CHAPTER XII.—Camping.—How to Pitch and Strike Tents .. 185

CHAPTER XIII.—Marches..... 196

CHAPTER XIV.—Lines and Bases of Operations..... 200

CHAPTER XV.—The United States Military Academy, West Point.—Method of Appointment, Examination, Etc..... 221

CHAPTER XVI.—How Commissions Are Obtained in the United States Army.—Appendix; Articles of War..... 248

PREFACE.

The writer is indebted for information contained in the chapter on the National Guard to the Adjutant-Generals of Ohio, California, Nebraska, and Louisiana.

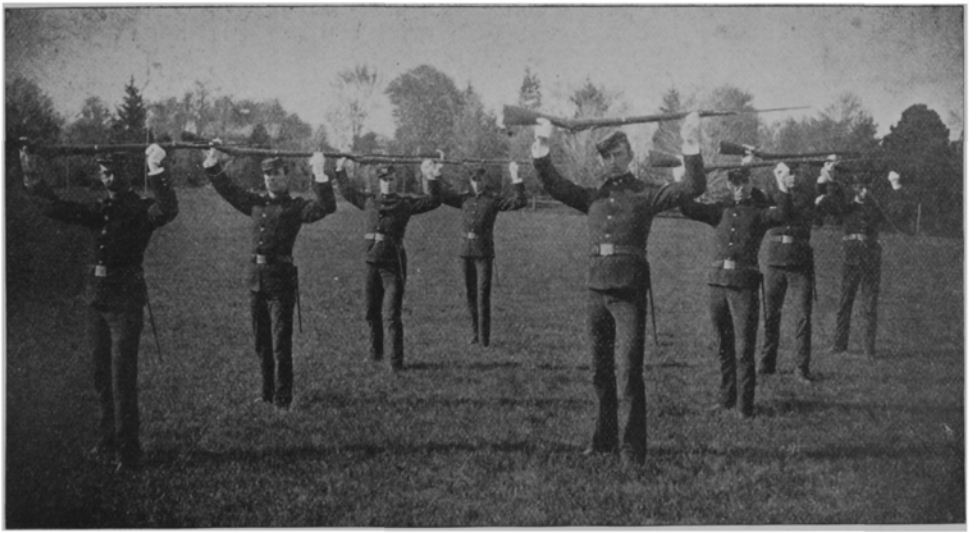
Some of the illustrations in the chapter on Military Engineering were kindly drawn by Major C. McCrory, Louisiana State National Guard.

The following works have been consulted and quoted from:

United States Army Regulations;
United States Hospital Regulations;
Manual of the School of Military Engineering, Chatham, England;
Wheeler's Field Fortifications;
Regulations of the Universities of California and Louisiana;
Journal United States Cavalry Association;
Cavalry, Artillery, and Infantry Drill Regulations.

JOHN A. LOCKWOOD,
Captain United States Army (Retired).

LOUISIANA STATE UNIVERSITY,
Department of Military Science and Tactics,
June, 1903.



BAYONET DRILL, MICHIGAN STATE AGRICULTURAL COLLEGE.

The Western military college under United States patronage never took shape, but another plan for partially attaining the same end has prospered, based upon a deep-seated popular belief that patriotism and education should go hand in hand. Under this plan, for over thirty years, officers of the regular Army, taken either from the active or the retired list, when not required with their regiments, have been detailed at various educational institutions for the purpose of acting as professors of military science and tactics. The law allows one hundred* to be so detailed,

*Section 1225, Revised Statutes of the United States, as contained in General Orders No. 26, March 7, 1891:

"SEC. 1225. The President may, upon the application of any established military institute, seminary or academy, college or university, within the United States, having capacity to educate at the same time not less than one hundred and fifty male students, detail an officer of the Army or Navy to act as superintendent or professor thereof; but the number of officers so detailed shall not exceed fifty from the Army and ten from the Navy, being a maximum of sixty at any time, and they shall be apportioned throughout the United States—first to those State institutions app'ying for such detail that are required to provide instruction in military tactics under the provisions of the Act of Congress of July second, eighteen hundred and sixty-two, donating lands for the establishment of colleges where the leading object shall be the practical instruction of the industrial classes in agriculture and the mechanic arts, including military tactics; and after that, said details to be distributed, as nearly as may be practicable, according to population. The Secretary of War is authorized to issue, at his discretion, and under proper regulations to be prescribed by him, out of ordnance and ordnance stores belonging to the Government, and which can be spared for that purpose such number of the same as may appear to be required for military instruction and practice of the students of any college or university under the provisions of this section, and the Secretary shall require a bond in each case in double the value of the property, for the care and safe-keeping thereof, and for the return of the same when required."

This Act is amended as follows. "This section * * * * is so amended as to permit the President to detail * * * * one hundred officers of the Army of the United States; and no officer shall be thus detailed who has not had five years' service in the Army, and no detail to such duty shall extend to more than four years." * * * Approved November 3, 1893.

and in addition the favored institutions are supplied with arms and equipments by the Government, all free of cost, and at the schools where the course in military science is made a condition of graduation, the names of distinguished cadets are published in the annual *United States Army Register*. It is assumed that appointments of officers "from civil life" to the Army will be largely made in the future, as in the past, from these "distinguished cadets."

Many volunteer regiments which served at different periods in Cuba and in the Philippines were officered almost wholly by young men who received their military education at one or another civil institution of learning.

The value of a military training to the youth of a country like the United States can hardly be overestimated. Our regular Army will always be comparatively small and scattered, and in case of war the main dependence of the land must always be on its citizen soldiery. We have never been engaged in a war yet when at the start enough educated men to act as officers to the raw volunteers could be found. In 1861 General McClellan wrote to a friend from the city of Washington:

"The great trouble is the want of officers of regiments. We have good material, but no officers."

The Inspector-General, United States Army, remarks:

"The law which laid the foundation for this widespread military instruction, so intensely needed under our national circumstances and by our political and commercial interests, originated from the want of officers, which was severely felt during our Civil War, and its enactment was evidently intended to meet future contingencies The primary object, therefore, in fostering military instruction at these educational institutions should be the preparation of student cadets to assume the duties of officers. These young gentlemen cannot expect to learn how to command before they have acquired the art of obeying intelligently, properly, and promptly. The reports show what has been accomplished and what still needs to be done—and should be done now—to meet the spirit of the law. It is the indisputable right of the Government to prescribe the scope and nature of military education and to demand compliance with the conditions and regulations connected with the detail of an Army officer, and it is the duty of the college authorities in accepting the

detail to comply with all the conditions imposed. On the one hand, we have schools that have been munificently endowed by the Government as a condition of military instruction, and are lawfully required to instruct in military tactics; on the other, schools that have agreed to military instruction by accepting the services of an Army officer, and both are equally bound in good faith to make the instruction efficient. And the Government and its officials are equally bound to aid and promote this efficiency.

"Much has been accomplished, and more could be, under a uniform and more progressive system and methods. Much that has been done seems to have been done well; and many of the college cadets who annually leave these institutions, well instructed in military tactics and imbued with a military and patriotic spirit, are well entitled to be relied upon by their country in case of any emergency and have a claim upon the Government which can be wisely recognized in an appropriate way by such legislation as will subserve the best interests of the Government, and stimulate and elevate military instruction in our civil colleges, and produce the highest results possible under the laws under which such military instruction was established; even, if necessary, providing for the appointment to the Army of a proper number of college cadets, and, if it should be found to produce the results anticipated, also insure the accessibility and proper employment of the whole body of graduated and qualified college cadets in time of war. One of the older of these institutions its said to have furnished from its alumni for the Civil War twelve general officers, twenty-five colonels, forty field officers, and one hundred and ninety-eight company officers."

The Secretary of War makes the following statement:

"The officers schools at military posts and the General Service and Staff College will be open for instruction to officers of the National Guard of the several States, to former officers of volunteers, and to graduates of military schools and colleges which have had officers of the Army as instructors. The college staff at the General Service and Staff College, Fort Leavenworth, will make report to the Secretary of War of qualifications of officers of the National Guard, ex-volunteers, and graduates of military schools and colleges who shall have attended the college or shall apply for examination, and shall further certify whether or not they are qualified for service as officers of volunteers, specifying character of the service, whether line or staff, for which they are specially qualified. A special register of the names of persons so reported as qualified will be kept in the War Department."—*Report of the Secretary of War* (1901).

CHAPTER II.

DISCIPLINE.—DUTIES OF CADET OFFICERS.—SOME ADVANTAGES OF MILITARY DISCIPLINE TO CADETS.

"Discipline is an indispensable condition for the existence of good troops. It imparts cohesion and flexibility in an armed body of men. Where there is no discipline, an army is without control. First, an efficient officer; second, discipline; which latter may be defined as follows:

"*Discipline*, in military affairs, is a general name for the rules and regulations prescribed and enforced for the proper conduct and subordination of officers and enlisted men. This is the technical meaning. In a higher sense, discipline is the *habit of obedience*. The individual acquires the habit of subordinating his own will or inclinations to those of his superior in rank without surrendering self-respect or individual rights. Without these qualifications, a command is not efficient."—*Wilhelm*.

An army is a military organization which in time of peace prepares for war and in time of war attempts to accomplish certain results by means of force.

The foundation of an effective army is military discipline.

Military discipline is the habit of obedience to lawful orders of a superior.

Military discipline is obtained by training men to act in accordance with established rules.

Every army has its own rules. In the United States Army they are found in the Army Regulations and Drill Regulations, in unwritten "customs of service," and in general orders.

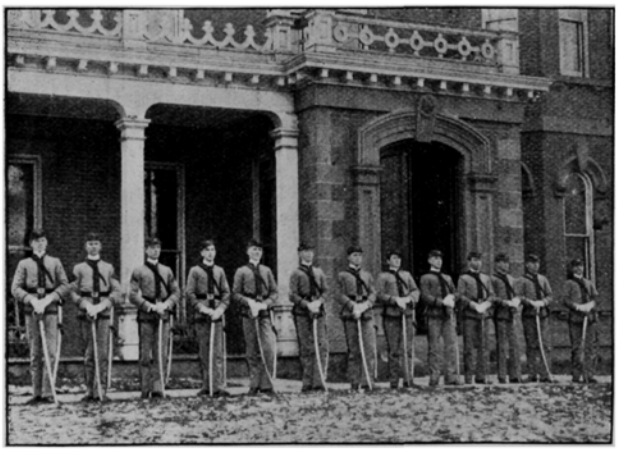
Regular and systematic drill, guard duty, rewards, punishments, and *esprit de corps* are aids to discipline.

"*Esprit de corps*" is the animating spirit of a collective organization. It is shown by pride in an organization and an endeavor to constantly improve it.

Under the term of "discipline" is included every systematic means for insuring the following results:



ARTILLERY DRILL.



SABRE DRILL.

1. Unhesitating obedience in strict enforcement of military law and orders, and a careful observance of the respect and courtesy necessary and customary between the grades and the branches of the military establishment.

2. The health and comfort of troops.

3. Care and accountability for public military property.

4. Information, in the most concise form, showing, at stated times, or on demand, the strength, condition, and situation of forces and supplies.

5. Uniformity in matters of details and correspondence. Neglect in applying the means which may attain these ends is breach of discipline.

Familiarity between officers and enlisted men, and between non-commissioned officers and privates, should not be permitted when on duty. Perfect civility is compatible with the exercise of the strictest command.

Punishments should be strictly conformable to military law, and must follow the offense as promptly as circumstances will permit; but soldiers must be treated with kindess and humanity.

Inferiors must obey strictly and execute with alacrity and good faith the lawful orders of the superiors appointed over them. Whosoever disobeys an order on the ground of illegality does so at his peril. It is understood, however, that orders shall not be manifestly against law and reason; and an officer giving an illegal order subjects himself to trial by court-martial, or such other penalty as may attach to the same. Whether a command is lawful often depends upon circumstances with which the superior is acquainted, but of which the subordinate is ignorant. The limits of authority are not confined by written laws. Whatever is necessary for the maintenance of military discipline falls within the scope of military authority. Prompt, ready, unhesitating obedience on the part of military men to those who are over them is so necessary to the safety of the military state, and to the success of every

military achievement, that it would be pernicious to have it understood that military disobedience, in any event, may go unquestioned. Except in solitary instances, when the illegality of an order is glaringly apparent, or the order, if executed, would effect some palpable outrage against moral obligation, a military subordinate is compelled to a complete and undeviating obedience to the very letter of the command received.

Any officer or enlisted man, deeming himself aggrieved, may lay his complaint before his commanding officer.

Every member of the National Guard is at all times subject to the military law and regulations.

Each subordinate should have complete and exclusive control of his own command; any orders or instructions to it should be issued to the commander, and to none other.

Commanding officers are required to have their non-commissioned officers properly instructed, and to see that they are obeyed by the men.

Upon entering the drill-room, or any room connected with an armory, soldiers should be held to quiet, orderly, and respectful conduct until they depart therefrom.

Deliberations or discussions among military men, conveying praise or censure, or any mark of approbation toward others in the military service, and all publications relative to transactions between military men, either of official or personal nature, whether newspaper or pamphlet or hand-bill, are considered unmilitary and injurious to the public interest.

MILITARY COURTESY.

OFFICERS.

Courtesy among military men is indispensable to discipline; respect to superiors should not be confined to bedience on duty, but should be extended on all occasions.

All officers should salute each other when they meet, the inferior making the first salute.

Officers under arms salute with the sword or hand, according as the sword is drawn or in the scabbard.

Officers salute with the sword or hand in making and receiving all official reports, the junior making the first salute.

On official occasions, officers, when under arms in doors, do not uncover, but they salute with the sword or hand, according as the sword is drawn or in the scabbard; when in doors and not under arms, they uncover and stand at attention, but do not salute.

An officer mounted dismounts before addressing a superior officer not mounted.

Officers in citizens' dress are saluted in the same manner as when in uniform.

All salutes must be acknowledged immediately. When returning salute, officers salute as prescribed in the Drill Regulations.

When several officers in company are saluted, all who are entitled to the salute return it.

Officers out of doors will on no occasion remove their hats or caps in saluting or returning salutes, except in saluting the colors.

Officers arriving at the headquarters of a military geographical division, department, or organized military command, or at a military post, should, as soon thereafter as practicable, call upon the commander thereof and register their names in the office of the assistant adjutant-general or adjutant of the command. If the visiting officer be senior to the commander, the former may send a card, when it will become the duty of the commander to make the first call.

SOLDIERS.

When an officer enters a room where there are soldiers, the word *attention* is given by someone who perceives him,

when all rise, remain standing in the position of the soldier without saluting, and, unless addressed, preserve silence until the officer leaves the room; if at meals, they need not rise.

Soldiers at all times and in all situations pay the same compliments to officers of the Army, Navy, Marines, Volunteers, and Militia as to the officers of their own particular organization.

A non-commissioned officer or private in command of a detachment without arms salutes all officers with the hand; if the detachment be on foot and armed with the rifle, he executes the rifle salute; if the detachment be armed with the saber, he salutes with that weapon if it be drawn; otherwise as though he were unarmed.

The salute with the sword or saber for all enlisted men consists in executing the first motion of the officer's salute.

Whenever a soldier without arms, or with side-arms only, passes an officer, he salutes as prescribed in Drill Regulations, using the hand farthest from the officer. If mounted, the soldier salutes with the right hand; in saluting the colors, he uncovers.

An enlisted man makes the prescribed salute with the weapon with which he may be armed, or (if unarmed) with the hand, before addressing the officer; he also makes the same salute after receiving reply.

In doors a soldier, when unarmed, uncovers and stands at attention, but does not salute unless he addresses or is addressed by the officer; in all other cases he salutes, as prescribed, without uncovering.

In armories, or rooms used for drills or meetings, before the command to fall in for drill or any duty under arms is given, the officers and soldiers present, for the purpose of military courtesy, are considered as being in doors; but after the command to fall in has been given, and until ranks are broken, the officers and soldiers present are considered as being out of doors.

A non-commissioned officer or soldier, being seated, and without particular occupation, rises on the approach of an officer, faces towards him, and salutes; if standing, he faces towards the officer for the same purpose. If the parties remain in the same place or on the same ground, such compliments need not be repeated.

If actually at work, soldiers do not cease it to salute an officer, unless addressed by him.

A mounted soldier dismounts before addressing an officer not mounted.

A mounted soldier in passing an officer salutes him with his saber, if drawn; otherwise, with the hand.

A soldier having occasion to approach an officer in his tent to speak to him should halt at three paces from the tent and salute. After the salute is acknowledged, he may enter the tent or state his business from his position outside, according to the indication of the officer. Upon leaving, he should salute the officer from the same position outside the tent. If the front of the officer's tent is closed, the soldier omits the salute, but, upon arriving at the tent, speaks the officer's name in a respectful manner to attract attention.

DUTIES OF OFFICERS AND NON-COMMISSIONED OFFICERS IN A CADET BATTALION.

The officers and non-commissioned officers are largely responsible for the *esprit de corps*, discipline, efficiency, and general appearance of the cadets, and indirectly for the good reputation and manly bearing of the student body. It is their duty to keep the standard as high as possible by their example and authority.

They must become thoroughly familiar with their drill duties, as prescribed in the authorized manuals. Careful preparation and close attention at drill are essential.

PROPERTY OF U. S. ARMY

FIELD OFFICERS.

The field officer holds a position of high honor and responsibility. He assists the commandant in maintaining discipline and promoting efficiency; supervises the exercises and enforces orders and regulations; corrects mistakes, and gives instruction whenever required. His rank must be respected and instruction followed by all. He must make regular reports and recommendations concerning the orgnizations and cadets under his supervision.

CAPTAIN.

The captain is responsible for the appearance, discipline, and efficiency of his company. He will see that proper care is taken of all public property while in use by his company. At the first call for drill he will proceed to the company parade, and see that the company is properly and promptly formed by the first sergeant. He will inspect his company before each drill, observing the military bearing and dress of each cadet and the condition of the arms and equipments, and strive to correct deficiencies. He will order check roll-calls when necessary. He will "fall out" any cadet who is not up to the required standard of efficiency, and detail a non-commissioned officer to instruct him. He should endeavor to gain the respect and good-will of his company by his thorough knowledge of his duties, by exacting a strict compliance with all regulations and orders, by combining uniform kindness and courtesy with firmness and impartiality. He must preserve a dignified, manly bearing, and command in fact as well as in name his company. He must become thoroughly acquainted with those under him, and recommend the efficient and deserving for advancement.

He will report to the commandant, on the drill-ground, cadets guilty of gross and continued delinquencies.

He will frequently require the lieutenants to drill the company, and will instruct them in their duties.

Cadet's Handbook.

A Manual for Military Students at Colleges and Academies.

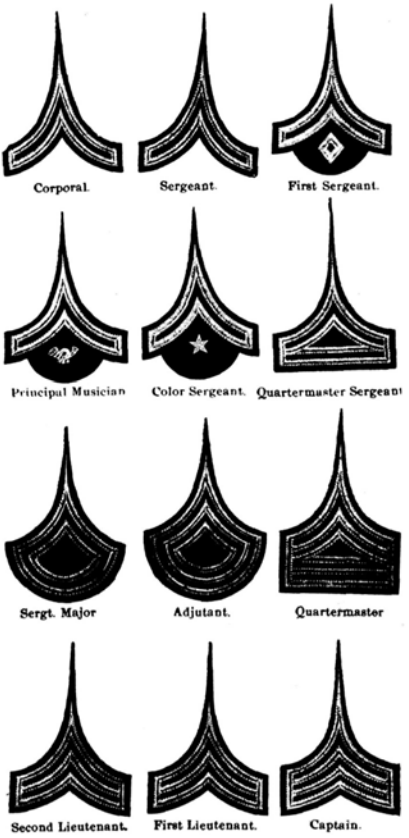
CHAPTER I.

Introductory.

Military drill and instruction in the schools, academies, and colleges of the United States was never so general or so popular as it is to-day. Its great benefits, physical, moral, and mental, are becoming better appreciated as the subject is becoming better known.

But little attention was paid to the military art outside of the regular Army before the Civil War. In the years immediately following that great conflict Americans, sated with fighting, felt themselves to be a nation of veterans, and for a while ceased to interest themselves in the profession of arms. More attention was paid to the art of turning spears into pruning-hooks and swords into ploughshares than to the military art.

A few patriotic souls, however, remembered the military axiom, "In time of peace prepare for war," and remembered that unnecessary sacrifices of men, money, and time on both sides at the beginning of the Civil War were due principally to the lack of sufficient early military training. Finally the United States Senate was induced, in the spring of 1866, to discuss the question of establishing a national military college somewhere in the Northwest.



CHEVRONS TO DENOTE CADET'S RANK.



CADETS AT MICHIGAN STATE AGRICULTURAL COLLEGE.

LIEUTENANT.

He must repair promptly to the place of assembly at the first call for duty. He assists the captain in all his duties, and must be prepared to assume command whenever required to do so. He must thoroughly inform himself as to the duties and responsibilities of the non-commissioned officers, and continuously strive to advance the efficiency of the company.

ADJUTANT.

The adjutant performs the drill duties required by regulations and such office work as may be assigned to him. He supervises the making of reports and returns required of other officers, commissioned and non-commissioned, and, under the direction of the commandant, has charge of the preparation and publication of orders and circulars; he keeps the record of the corps; he keeps all rosters, and prepares the details for special and extra drills.

QUARTERMASTER.

He must familiarize himself with the whereabouts, amount, and condition of all United States and military property, and keep a strict account of it. He must be in the armory immediately before and after each drill and preserve order and system, requiring each cadet to take his proper equipment and to return it to its proper place at the conclusion of the exercise. He assigns the arms and equipments to cadets, and keeps a record of the same.

He will allow no one to use the property and rooms except as officially directed, and he will permit no property to be removed except on a written order from the head of the department, or, in his absence, from the president or superintendent of the institution.

He will take a receipt for articles that are authorized to be removed from his charge. He will keep a list of articles that are not returned at the proper time and of

damaged articles, and report the names of the delinquents to the head of the department.

He prepares all property returns, and performs such other clerical work as may be required.

He must keep the arms and equipments and other property in good condition. Small-arms and field-pieces must be frequently oiled.

ARTILLERY AND SIGNAL OFFICERS.

Officers in command of artillery and signal detachments, in addition to the general qualifications demanded of captains, must possess a thorough knowledge of their special duties. They must keep records of the various kinds of drill, the time devoted to each, the names of cadets participating, and their attendance and proficiency.

BAND LEADER.

He is commander of the band as well as instructor in music, and responsible for its appearance, discipline, and efficiency. He is assisted by the chief and principal musicians, and such other non-commissioned officers as may be appointed. He has charge of the field music.

He has charge of the instruments, music, and other property used by the band, and must keep a record of issues to cadets.

SERGEANT-MAJOR.

The sergeant-major is the highest non-commissioned officer, and his duties are correspondingly important. He assists the adjutant in the performance of his clerical duties. He should be conversant with the duties of all non-commissioned officers and privates. He keeps the consolidated morning report book.

QUARTERMASTER SERGEANT.

The quartermaster sergeant assists the quartermaster, and must be prepared to perform the duties of

sergeant-major. He must be at the armory at the first call for drill.

FIRST SERGEANT.

The first sergeant has, under the direction of the captain, immediate supervision of the company. He receives and transmits the orders of the company commander and sees that they are executed; he sees that every non-commissioned officer performs his duties. He should be thoroughly acquainted with each member of the company. He must preserve order, correct errors, and assist the captain in promoting the efficiency of the company. He acts as second lieutenant when necessary. He repairs to the office of the department immediately before the hour set for any duty, and at such other times as may be designated to receive orders and instructions, which he reports to the company commander. He sees that the details for special and extra duty are formed and reported to the proper officers.

He obtains a list of the sick, the absent with leave, the transfers and all other changes in the company, and preserves a record of them in the report books.

He must proceed to the company parade immediately after the first call, and take his post. At the sounding of the assembly he commands, "Fall in!" and, assisted by the other sergeants, forms the company without delay. *All cadets should be required to be in their proper places by the time the last note of the assembly is sounded.* He then brings the company to the right shoulder and calls the roll, keeping a record of the absentees and the "late."

SERGEANTS AND CORPORALS.

Sergeants and corporals have a general supervision over all the cadets of the company and special charge of the members of the sections and squads of which they are chiefs. They must be thoroughly familiar with their drill duties as laid down in the Drill Regulations and Man-

ual of Guard Duty, and see that the cadets comply promptly with the orders received. Efficiency at drill depends very largely upon the activity and capacity of the non-commissioned officers.

DRUM-MAJOR.

The drum-major is a non-commissioned officer of the band with the rank of sergeant or corporal. He may be detailed as "sergeant-in-charge," with duties similar to those of the first sergeant. He performs the duties prescribed in the Drill Regulations, and assists in preserving discipline and promoting the efficiency of the band.

CLERK.

The clerk must be at the office on drill days and at other times when required, and perform such clerical work as may be assigned to him by the commandant and adjutant. He may be a cadet non-commissioned officer or private, and excused from other duties.

ARTILLERY DETACHMENT.

The detachment is instructed in the school of the cannoneer, the school of the platoon dismounted, in mechanical maneuvers, and in the theory of the employment of artillery in the field. The mechanism and nomenclature of the 3.2″ breech-loading rifle, a description of its ammunition, and the use of range-tables are parts of the course. Saber exercises will be given when the time permits.

The detachment is formed and maneuvered as prescribed for a platoon dismounted.

THE BAND AND FIELD MUSIC.

The band is composed of such cadets as may be selected on account of their musical qualifications. Ordinarily no cadet will be assigned to the band until he has satisfac-

torily completed the "school of the soldier" and the "school of the company."

The leader and non-commissioned officers are selected on account of their superior qualifications, military and musical, for the positions.

Advantages of Military Discipline and Methods of Attaining It.

Under the military system it is usual to offer rewards for good conduct, and to subject those who violate the rules and regulations to some form of punishment.

Among cadets the rewards may consist in prizes, honorable mention, special privileges, appointments to office in the cadet battalion, etc. The punishments may consist in deprivation of privileges, reduction to the ranks, if cadet officers; arrests, demerits, reprimand, dismissal, and expulsion. At some institutions extra tours of guard duty are resorted to as a means of punishment, and in some cases fatigue duty (manual labor in some form), confinement to their rooms, fines, etc., are resorted to.

Cadet officers should consider themselves always in honor bound, by virtue of their offices, to report all gross infractions of discipline, and not to allow their personal feelings towards other cadets to influence their action one way or another.

There is no uniform system at present in force at military schools for rewarding merit or punishing delinquents; but, whatever system is adopted, it should be made to work impartially, as nothing so soon undermines discipline as a feeling of dissatisfaction on account of an unequal system which does not work impartially.

At colleges where the cadets live in dormitories and attend all exercises in military formation, a much better system of discipline can be maintained than where they live in a neighboring town or city and are not under constant military restriction.

If dormitories are used, they should be subject to very frequent inspections, and everything should be kept scrupulously clean.

Where the dormitory system is in use, the cadets should never be allowed to leave the college limits except upon permit issued in regular order. They should be required to be in their rooms at night, after call to study, and all lights should be extinguished together at the hour fixed upon for going to bed.

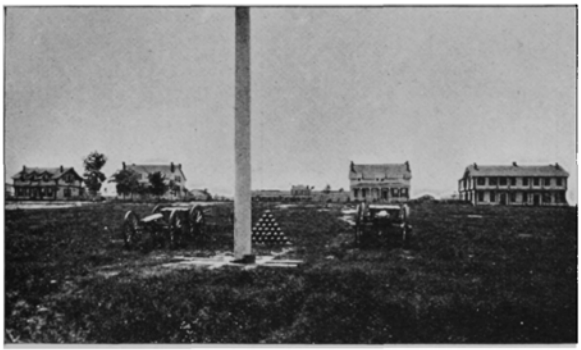
Keeping arms or deadly weapons in possession, drinking intoxicating liquors of any kind, playing cards or other games of chance, and "hazing" of new cadets, are among the things absolutely prohibited at all well-regulated military schools.

"There are certain lessons a young man needs to learn, among the chief of these being obedience, order, promptness; and courtesy. The effect of military training is to develop and foster these virtues, and at the proper time, if the proper progress has been made, to teach the added lessons of equal importance—the discharge of responsibilities and the exercise of authority."

CHAPTER III.

THE UNITED STATES ARMY; ITS COMPOSITION AND ORGANIZATION.—THE "LINE."

The military force of the United States consists of the regular Army (legal strength, maximum, 100,000 men; minimum, 59,500 men) and the National Guard, or State Militia.



ARMY POST IN THE WEST.

The *Army Register* for 1902 gives the following as the *actual* strength of the Army:

		Total Commissioned.	Total Enlisted.	MILITARY ACADEMY		Aggregate.
				Professors and Associate Professors.	Cadets.	
1	General Officers.	22	.....	...	....	22
2	Aides de Camp to General Officers	...	.....	...	....	.....
3	Adjutant-General's Department	28	.....	...	....	28
4	Inspector-General's Department	17	.. ..	...	....	17
5	Judge-Advocate-General's Department	12	.....	...	....	12
6	Quartermaster's Department ..	96	150	...	....	246
7	Subsistence Department	41	200	...	....	244
8	Medical Department....	321	4,000	...	....	4.321
9	Pay Department	53	.....	...	....	53
10	Corps of Engineers	160	1,282	..	....	1,442
11	Ordnance Department.	72	700	.	....	772
12	Signal Corps.....	35	810	...	....	845
13	Record and Pension Office.....	2	.....	...	....	2
14	Chaplains.	57	.....	...	....	57
15	15 Regiments of Cavalry.....	750	14,260	...	....	15,010
16	Artillery Corps.	651	17,742	...	....	18,393
17	30 Regiments of Infantry	1,500	30,550	...	....	32,050
18	Military Academy. . .	....	.... .	8	492	500
19	Enlisted Men Unattached to Regiments	.....	942	...	....	942
20	Indian Scouts.	.....	75	...	....	75
21	Grand aggregate.	3 820	70,711	8	492	75,031
22	Retired Officers.	.....	.....	1	....	800
23	Retired Enlisted Men.	.....	.....	...	....	1,876

Should need arise, Congress would authorize the President of the United States to call for volunteers for a special time. The number called for from each State would be determined by their Congressional representation.

Volunteers so obtained would be mustered into the United States service, and would be subject to the same rules and regulations and entitled to the same privileges and pay as regulars.

The line of an army is its fighting force.

It is composed of three arms, the cavalry, artillery, and infantry. Each arm has a characteristic method of action.

Relative order of rank, United States Army:

1. Lieutenant-general.
2. Major-general.
3. Brigadier-general.
4. Colonel.
5. Lieutenant-colonel.
6. Major.
7. Captain.
8. First lieutenant.
9. Second lieutenant.
10. Veterinarian, cavalry and artillery.
11. Cadet.
12. Sergeant-major, regimental; sergeant-major, senior grade, artillery.
13. Ordnance sergeant; post commissary sergeant; post quartermaster sergeant; electrician sergeant; hospital steward; first-class signal sergeant.
14. Quartermaster sergeant and commissary sergeant, regimental; chief musician.
15. Sergeant-major, squadron and battalion; sergeant-major, junior grade, artillery; color sergeant; chief trumpeter, principal musician; battalion quartermaster sergeant, engineers.

16. First sergeant; drum-major.
17. Sergeant; quartermaster sergeant, company; stable sergeant, battery; acting hospital steward.
18. Corporal.

In each grade, date of commission, appointment, or warrant determines the order of precedence.

A company of infantry varies from less than 100 to 250 men in different armies. It is commanded by a captain, assisted by two or more lieutenants. From two to six (usually four) companies constitute a battalion of infantry, commanded by a major.

From two to four battalions (usually three) constitute a regiment, commanded by a colonel.

Two or more regiments of infantry constitute a brigade, commanded by a brigadier-general. The brigade is the largest body of infantry only.

The *division* consists of two or more brigades of infantry, a certain portion of artillery and cavalry, a company of engineers, and possibly a signal detachment, and is commanded by a major-general.

The *corps* is composed of two or more divisions of infantry, a division of cavalry, all the reserve artillery, a battalion of engineers, a signal detachment, and a bridge train, and is commanded by a lieutenant-general. "The *corps* is the strategical unit. It is, in fact, a small army, complete in all its parts, and is capable of independent action."

Two or more corps constitute an army, the proper command of which would be a general. One corps usually contains about 30,000 men.

Officers of the regular Army, Marine Corps, and Volunteers when commissioned or mustered in to the service of the United States, being upon equal footing, take precedence in each grade by date of commission or appointment. Militia officers, when employed with regular or volunteer

forces of the United States, take rank next after all officers of like grade in those forces.

Between officers of the same grade and date of appointment or commission, other than by promotion by seniority, relative rank is determined by length of service, continuous or otherwise, as a commissioned officer of the United States, either in the regular Army, or, since April 19, 1861, in volunteer forces. When periods of service are equal, precedence, except when fixed by order of merit on examination, is determined, first, by rank in service when appointed; second, by former rank in the Army or Marine Corps; third, by lot, among such as have not been in the military service of the United States.

The relative rank between officers of the Army and Navy is as follows, lineal rank only being considered:

General with admiral;
Lieutenant-general with vice-admiral;
Major-general with rear-admiral;
Brigadier-general with commodore;
Colonel with captain;
Lieutenant-colonel with commander;
Major with lieutenant-commander;
Captain with lieutenant;
First lieutenant with lieutenant (junior grade);
Second lieutenant with ensign.

Command is exercised by virtue of office and the assignment of officers holding military rank who are eligible by law to exercise command. Without orders from competent authority, an officer cannot put himself on duty by virtue of his commission alone. The functions assigned to any officer by title of office devolve upon the officer acting in his place, except when otherwise specified. An officer in temporary command can not, except in urgent cases, alter or annul the standing orders of the permanent commander without authority from the next higher commander.

An officer relieved turns over to his successor all orders in force at the time and all the public property and funds pertaining to his command or duty.



LIEUTENANT OF INFANTRY, U. S. ARYM.

The military establishment is under the orders of the commanding general of the Army in that which pertains

to its discipline and military control. The fiscal affairs of the Army are conducted by the Secretary of War through the several staff departments.

The commander of a department commands all the military forces of the Government within its limits, whether of the line or staff, which are not specially excepted from his control by the War Department. Officers employed on special duty under the Secretary of War are exempted from the supervision of department commanders; but when an emergency demands it, all military men and material within the limits of their jurisdiction come under their control.

Permanent military posts are established under the direction of the Secretary of War, by whom their names are designated.

Permanent posts are styled "Forts," and points occupied temporarily by troops, "Camps."

The commander of a post is responsible for its safety and defense and for the discipline and tactical instruction of his command, to which ends all other garrison duties are made subservient. He is responsible for the preservation and proper application of public property, for the strict enforcement of laws and regulations, and for the proper condition of quarters and defenses. He makes an inspection of his command on the last day of every month, and satisfies himself by frequent personal examination that the disbursements of all officers in charge of funds are in accordance with law and regulations and their accounts correctly stated, and makes such reports of these inspections and examinations as the department commander may direct.

A company in infantry, a troop in cavalry, and a battery in artillery, are the units of organization in the respective arms. The strength of these units varies according to the needs of the service and the money avail-

able for their support, being necessarily greater in time of war than in time of peace.

In the cavalry and infantry arms the regiment is the administrative unit. A cavalry regiment consists of three squadrons of four troops each; an infantry regiment of three battalions of four companies each. The command of a regiment devolves upon the senior officer on duty with it, wherever he may be stationed. The station of the permanent regimental commander is the headquarters of the regiment. Wherever incomplete battalions of the same or different regiments are serving together, the commanding officer may designate provisional battalions. The battalion is the unit for maneuvers and instruction; it is not an *administrative* unit; it has no headquarters, and, when serving in a regiment, no records.

Upon the organization of a regiment its companies receive permanent designations by letters in alphabetical order, and officers are assigned to them in order as lettered, according to rank. Subsequently officers, upon promotion or appointment, are assigned to fill vacancies regardless of relative rank.

INFANTRY.

An infantry soldier, equipped for the field, should carry on his person his arms and 100 rounds or more of ammunition, an entrenching tool, all necessary clothing and bedding and tentage, cooking utensils, and rations for three days. He should be able to take care of himself, even if separated from his command, for days at a time. The weight carried is about 50 pounds in the United States Army by an infantryman in the field.

Unlike cavalry or artillery, infantry can operate on all kinds of ground, and can act either on the offensive or defensive; unlike cavalry, it is effective when at halt, and, unlike artillery, it is effective when in motion.

It can reach an enemy as far as a rifle shot will carry,

and its value is largely dependent on its marksmanship and ability to entrench quickly.



INFANTRY LIEUTENANT IN "FIELD" UNIFORM.

The marching rate of infantry on good roads is three miles per hour, exclusive of halts.

The weapons of infantry, called "small-arms," are the magazine rifle and bayonet; the first used for "fire-action," the second for "shock-action."

The United States Army is now (1903) armed with the magazine rifle known as the Krag-Jorgensen, adopted in 1892 by the War Department after many experiments with other arms. The magazine is made to hold five cartridges in addition to one in the chamber of the rifle. The magazine may be cut off if it is desired to use the piece as a single-loader. The caliber is .30". The cartridge contains a charge of 37 grains of smokeless powder and a lead-core bullet weighing 220 grains, covered with a jacket of cupro-nickeled steel. The "initial velocity" is 2,000 feet per second and extreme range over 3,800 yards. The penetration in oak is 2 feet. This arm, with the knife-bayonet, is carried by the infantry, coast artillery, and engineers. The cavalry carbine is practically the same weapon, but somewhat lighter and without the bayonet.

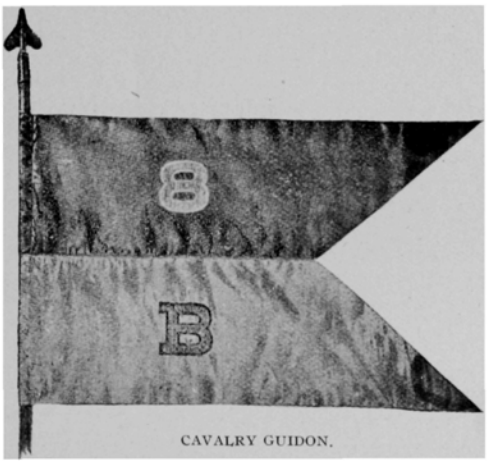
There are four kinds of rifle fire, viz.: (1) Volley fire, or simultaneous firing by the men of a squad or larger unit at the command of one man, who gives the object and range; (2) fire at will, when each man fires independently; (3) fire with counted cartridges, the number not to be exceeded; (4) rapid fire, with the magazine, at 300 yards and under.

The fire of the breech-loading rifle is felt at a distance of more than 2,500 yards, and becomes serious at nearly 1,700 yards, and becomes really effective at 1,000 yards. At 500 yards it is decisive, and at 300 yards it is annihilating.

The infantry, trained to march and fight on foot, is the backbone of an army and the strongest arm numerically, being about 75 per cent of the line.

CAVALRY.

The troop in cavalry corresponds to the company in infantry. Four troops constitute a squadron, which corresponds to the battalion in infantry. Usually three squadrons constitute a regiment of cavalry, and three regiments a brigade of cavalry. What is known as an independent brigade should consist of at least three regiments of cavalry and a battery of horse artillery.



CAVALRY GUIDON.

The commanding officers of troops, squadrons, regiments, and brigades are captains, majors, colonels, and brigadier-generals, respectively.

The division consists of three brigades of cavalry and two or more batteries of horse artillery It is commanded by a major-general.

The cavalry corps consists of two or more divisions

of cavalry. It is commanded by a lieutenant-general. Cavalry is usually assigned to the divisions of infantry, but it may be formed into a corps by itself.

The size of a troop of cavalry varies in different armies. In the United States Army, assuming that it is 100 men, twelve troops to a regiment, an idea of the number of men required for the larger subdivisions can be readily obtained.

The proportion of cavalry in the United States Army, compared to European armies, is large, owing to peculiar conditions which call for mounted men in the Indian country and in our foreign possessions.

The United States cavalryman is armed with the carbine (a somewhat lighter arm than the infantry rifle) and with the saber and revolver. He carries his revolver, and revolver and carbine ammunition, on his person. The carbine and the saber are attached to the saddle of his horse. All other articles which he requires for his use on campaign are either attached to the saddle or carried in the saddle-bags on his horse, even to some extra horseshoes and nails.

The cavalryman is trained to fight on foot as well as on horseback. When about to fight on foot, usually one man in every four is left to care for the horses, which is done by hitching the horses together, as follows: In the clapper-ring on the left side of the bit is fastened a strap, carrying a snap-hook at its extremity, which is snapped into the upper buckle of the cheek-piece. At the moment of dismounting to fight on foot, the trooper disengages the snap-hook and snaps it into the right ring of the bridle-bit of the horse next on his left. In this way a single trooper can, without inconvenience, hold several horses.

The Cavalry Drill Regulations prescribe that in all offensive operations, whenever there is opportunity for its employment, the cavalry shall be mounted. "Cavalry must never wait to be attacked, but must always take the

initiative; its strength is in its impetus; order, uniformity, and the proper employment of reserves are essential to success, the object being to ride the enemy down and complete his overthrow with the saber and pistol."



TROOP OF CAVALRY, U. S. ARMY.

"It is generally expected of cavalry and is its pride to be bold and daring. A cavalry commander who contents himself with sendiag out a skirmish-line often loses a great opportunity. A sudden and bold charge which surprises the enemy is not only successful, but the loss is small in proportion to its success."

The horses used in the United States cavalry service are purchased from contractors after a rigid inspection. They are shipped from place of purchase to the different regiments of cavalry, and are assigned to troops according to color, some troops being made up of bays, some of blacks, some of grays, etc. They are trained under the supervision of troop commanders and non-commissioned

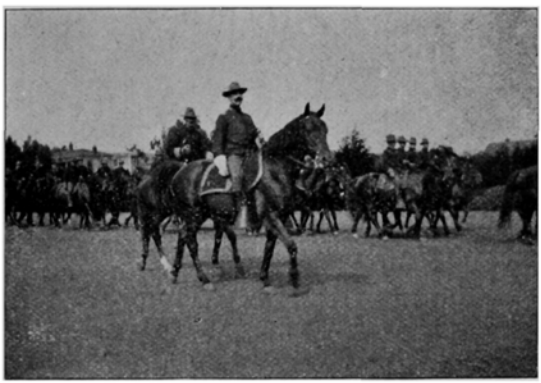


CAVALRYMAN, U. S. ARMY.

officers, and soon learn to stand under fire, to lie down when ordered, to travel at the regular gaits, and to obey some of the bugle calls. Each soldier has a horse assigned to him for his exclusive use. He is required to care for his own horse, and is held responsible for him. Officers are required to buy their own horses, and are not allowed to

use public horses ordinarily. Every cavalry officer is expected to make a study of the horse, and to be able to treat sick horses for their ordinary ailments.

In his first annual message to Congress, President Roosevelt, speaking of the United States cavalryman, used the following language:



TROOP OF CAVALRY, U. S. ARMY.

"The proportion of our cavalry regiments has wisely been increased. The American cavalryman, trained to maneuver and fight with equal facility on foot and on horseback, is the best type of soldier for general purposes now to be found in the world. The ideal cavalryman of the present day is a man who can fight on foot as effectively as the best infantryman, and who is in addition unsurpassed in the care and management of his horse and in his ability to fight on horseback."

A French army officer remarks:

"The horses used in the United States Cavalry are strong and heavy, and of very nearly the size of those of our dragoons. As the American Cavalry rarely fights mounted, it does not make a point of having speedy, quick, and spirited hoses. On the contrary, the colonels of the regiments demand strong and tough horses, able to withstand long marches under heavy loads in severe climates. The cav-

alry is easily mounted, but not always with good animals, because it does not pay enough for them.

'The horses of Kentucky and Tennessee are pre eminently the best fitted for the saddle. The horses of these two States are generaliy characterized by their size and spirit. The neck is long, withers prominent, chest deep, girth well developed, and elbows wide apart. They are often deficient in the loins as well as in fullness of the croup, but they make, nevertheless saddle animals of the first class.



CAVALRY SCOUT.

"In the States of New York, Pennsylvania, Ohio, Michigan, Indiana, Illinois, Wisconsin, Iowa, Missouri, and Kansas, the production is very great, especially of draught animals Height and stockiness are found; spirit, however, is rare. The introduction of English blood several years ago appears to produce horses having more vigor and life. On the other hand, horses are so abundant in these immense regions that excellent and beautiful animals can be found.

"Texas produces a considerable number of horses. The offspring of those which the Spaniards brought over with them, they are generally ill-natured, difficult to train, and incapable of carrying heavy loads. The trials made with them by the American Cavalry

have been very unsatisfactory They are objected to as lacking in roundness of side and of thigh and as having weak limbs and defective hocks On the whole, the form of the animal is not pleasing.

'In Texas, within the last few years, American mares and full- and half-blood English stallions have been introduced. But these experiments are too recent to have produced appreciable results as yet upon the whole of the species.

"California has not yet furnished good material for the military service, although it is improving. Its horses are small, but during the past twenty or twenty five years full-blooded English stallions have been imported into that State, and are already producing good results, and in time these cross-breedings will produce excellent horses, not lacking in good blood. In Maine, New Hampshire, and Vermont the horse does not exceed 15¼ hands in height; he is gentle, coarse and tough."

A cavalryman is armed with a carbine, a saber, and a revolver.

"*Revolver*.—The revolver is a strong weapon, easily kept in order.

"*Saber*.—The saber used in the cavalry is slightly curved, with a guard hilt. The scabbard is of steel. When mounted, the saber is always attached to the saddle, under the left thigh of the trooper; on foot, it is hooked up by two slings.

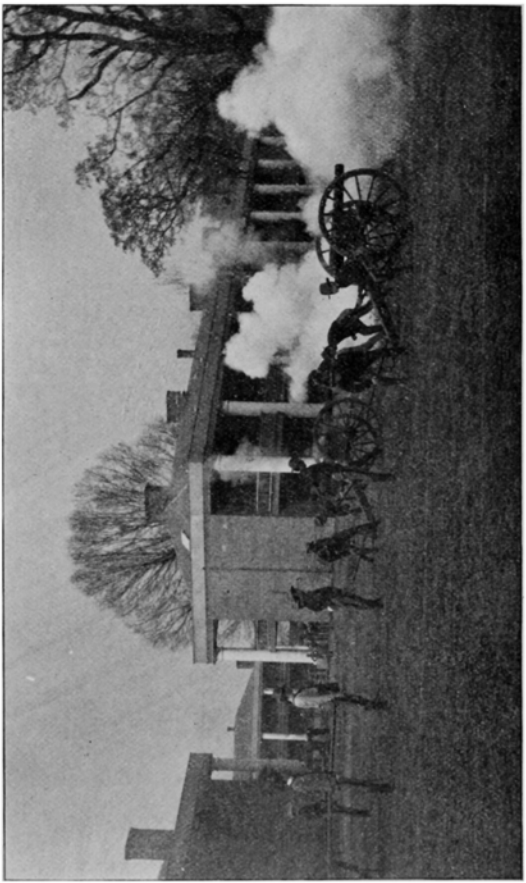
"After the War of Secession, General Sheridan, in consequence of various reports, obtained a decision that the saber should not be taken into the field. Some time ago the question came up again for discussion, and lately it has been decided that the cavalry should again take the saber on field duty.

"*Cartridge Belt*.—The cartridge belt used by the cavalry is of webbing. It is very convenient, and will hold one hundred cartridges. It is carried buckled closely around the body outside all the clothing, including the overcoat. The revolver, in its holster, is attached to the right side."—*Cavalry Journal.*

ARTILLERY.

The artillery in the United States Army is divided into coast artillery and light artillery.

The cannon is the distinctive weapon of artillery, and is technically spoken of as a "gun" and a "piece." It is habitually fired from a carriage, in contradistinction to the hand-arms used by cavalry and infantry. The company is the unit of organization in coast artillery and the battery in light artillery. There is no regimental organization.



ARTILLERY DRILL.

It is the function of coast artillery to man and care for the sea-coast defenses; incidentally it is armed and drilled like infantry.

Light artillery includes horse batteries, where the cannoneers (men who serve the piece) are mounted on horses; and field batteries, where the cannoneers march on foot near the guns, or else ride on the ammunition-chest, axle-seats, and off horses. Mountain batteries, in connection with which pack-mules may be used for transporting the guns, are also considered belonging to light artillery.

Light artillery usually requires six guns to a battery and twenty-five men to a gun, and each battery has a battery-wagon and a forge-wagon.

Light artillery is also divided into heavy and light field batteries, depending on the caliber of the gun used, the light being 3.2″ and the heavy 3.6″.

A battery of six guns, 16 yards from muzzle to muzzle, occupies 87 yards front.

The maximum range of the 3.2″ gun is three and a half miles. It can be fired seventy times an hour with telling effect up to this range.

The carriage on which each gun rests is attached to a limber, a two-wheeled ammunition-chest. Six horses, two abreast, are used to draw the combined gun-carriage and limber.

The caisson is a four-wheeled carriage which accompanies each gun, and is also drawn by six horses. The caisson is used for carrying ammunition, spare wheels, extra parts, etc.

Each pair of horses attached to the gun-carriage and caisson is in charge of a driver, who rides the near horse, which is saddled as well as harnessed.

The sergeants and corporals in charge of the guns and caissons are mounted on other horses. In horse artillery, extra horses are needed for mounting the cannoneers of the gun detachment.

The rate of march of light artillery does not exceed

twenty miles a day on good roads. It usually travels at a walk.

A light battery is divided into three platoons of two guns each. A gun with its carriage, limber, and caisson constitutes a section, there being two sections to a platoon.

Usually light artillery is employed in single batteries or battalions with other arms of the service. A battalion of horse artillery is attached to each division of cavalry. All the artillery attached to an army corps constitutes an artillery brigade.

Siege artillery consists of heavy field guns, which can be transported on ordinary roads.

Machine guns may be either horse, field, or mountain batteries, depending on the character of the gun.

A mortar is a short piece, having a small charge of powder, intended for vertical fire on the decks of vessels and over parapets. It may be used with both coast and light artillery.

The howitzer is a compromise between the long piece and the mortar, and is intended for both direct and high-angle fire. The extreme range of the latter is about 70°.

Serving with infantry or cavalry, the proportion of artillery is from two to four guns per 1,000 men of the other arms. Poor infantry requires a larger proportion of artillery than good infantry; and troops fighting in an open country can use artillery to better advantage than in a close-wooded country.

"Artillery has no independent rôle on the battlefield, but acts in conjunction with other arms. Its duty is to prepare and support."

CHAPTER IV.

STAFF AND ADMINISTRATIVE DEPARTMENTS.

THE ADJUTANT-GENERAL'S DEPARTMENT is the bureau of orders and records of the Army.

Orders and instructions from the President, the Secretary of War, or the general commanding are communicated to the Army through the Adjutant-General.

In the Adjutant-General's office are prepared the miltary records of every officer or soldier who is or who has been in the United States Army, as well as a record of the movements and operations of the troops.

In the Adjutant-General's office accurate records are kept of all appointments, promotions, resignations, and deaths. The *Army Register* is compiled here annually, and commissions are issued as they are required for officers by the Adjutant-General.

THE INSPECTOR-GENERAL'S DEPARTMENT is charged with the duty of inspecting and reporting the results of inspection to the commanding general. Every branch of military affairs comes within the province of this department except when special exceptions are made in regulations or orders.

THE JUDGE-ADVOCATE-GENERAL'S office is the bureau of military justice. The records of all general courts-martial, military commissions, and courts of inquiry are preserved in this department. The Judge-Advocate-General is the legal adviser in military matters of the Secretary of War and general commanding. He represents the United States in all military trials before either legal or civil tribunals.

The duties of the Judge-Advocate-General require a correct knowledge of the fundamental principles of law in

in general, and a thorough special knowledge of the practice of courts-martial.

THE QUARTERMASTER'S DEPARTMENT has charge of all matters relating to transportation, either in peace or war, of troops and supplies. It has charge of the construction of barracks and quarters for men and officers. It makes, or causes to be made, all clothing for the enlisted men of the Army (the officers providing their own). It supplies fuel and lights and animals needed for the Army and the forage for their maintenance. It constructs and repairs roads, railways, and bridges, builds and charters ships, boats, docks, and wharves needed for military purposes. It furnishes camp and garrison equipages, such as tents, kettles, stoves, axes, etc. It has charge of nearly everything concerning the comfort of the soldier except food, and it is by far the most all-embracing and comprehensive of the staff departments.

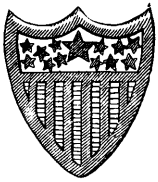
Quartermaster's supplies are kept in general dépôts until required for distribution to the troops.

Every enlisted man has a certain clothing allowance per annum.

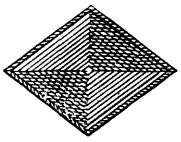
Undrawn clothing represents so much money paid to the soldier upon his discharge. Officers have no clothing allowance.

HORSES AND FORAGE.

All horses for the Army are purchased by the Quartermaster's Department, taking only those broken to the saddle. They are tried mounted before purchase. They must be able to travel in three gaits, to turn to the right and to the left, and be easy to mount. Consequently they are thoroughly broken when they arrive in the regiments. Once assigned to the troops, the captains complete their training, which is done very naturally by daily exercises. The United States Army uses only geldings; mares are not purchased. Officers procure their mounts at their own expense.



Adjutant-General's Department.



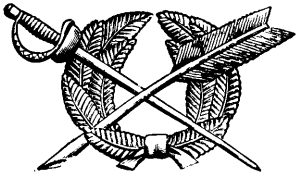
Pay Department.



Inspector-General's Department.



Ordnance Department.



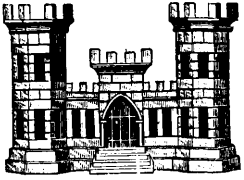
Judge-Advocate-General's Department.



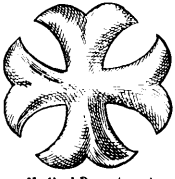
Subsistence Department.



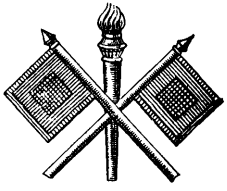
Quartermaster Department.



Engineer Corps.



Medical Department.



Signal Corps.

STAFF DEPARTMENTS, COATS OF ARMS.

Forage is purchased by public contract from the lowest bidder, but the contractor makes his delivery only to the quartermaster, who issues it to the troops.

In the United States Cavalry the regulation forage ration consists of 14 pounds of hay, 12 pounds of oats, corn, barley, or maize, also 3½ pounds of straw per day for bedding.

QUARTERS.

The installing of troops in barracks in the American Army is remarkable. With respect to situation and comfort, handsomer and better arranged quarters cannot be imagined. The military posts always occupy large tracts of land, in admirable localities and, as far as possible, situated on the banks of large water-courses.

The barracks, assigned as quarters for the enlisted men, are situated at some distance from the officers' quarters and hospital. The rule of quartering in barracks, with some slight variations, is always the same; each company has its separate establishment, which contains an orderly-room, a room for the first sergeant, rooms for the non-commissioned officers and men who lodge together, rooms for disciplinary purposes, a mess-room for non-commissioned officers, a mess-room for the men, a kitchen, a washstand- and bath-room, a work-room for the mechanics of the company, a library well supplied with newspapers and periodicals.

THE SUBSISTENCE DEPARTMENT is charged with the duty of furnishing food for the Army.

A ration is the allowance for the subsistence of one person for one day, and varies in components according to the station of the troops or the nature of the duty performed, being severally known as the garrison ration, the field ration, the travel ration, and the emergency ration. The garrison ration is issued to troops in garrison or in permanent camps, the field ration to troops in the field in active campaign, the travel ration to troops traveling

otherwise than by marching or when for short periods they are separated from cooking facilities, and the emergency ration to troops in active campaign for use on emergent occasions. (The emergency ration consists of condensed, highly nutritious food, carried in the saddle-bags or haversack of the soldier. It is put up in air-tight packages. The amount allowed for one meal is about the size of an ordinary biscuit or cracker.)

The Army field ration, exclusive of meat, will weigh, with necessary packages, about 2 pounds, or 1 wagon-load per day per 1,000 men.

Under ordinary circumstances, rations are issued to troops every ten days. In campaigns, or when starting on a march, the men carry upon their persons two, three, and sometimes five days' rations. On marches, whenever practicable, the beef ration is driven on hoof.

For troops in garrison the ration contains as standard articles: fresh beef, flour, beans, potatoes, prunes, coffee, sugar, vinegar, salt, and pepper; and these substitutive articles: fresh mutton, bacon, canned meat, dried fish, pickled fish, canned fish, soft bread, corn-meal, peas, rice, hominy, onions, canned tomatoes, fresh vegetables, and when impracticable to furnish fresh vegetables, desiccated vegetables.

In addition to the ration, company funds are drawn on to purchase delicacies from the subsistence stores. In this way every meal is made most palatable. Of course, much depends upon the company cook, but care is taken in the selection of this important personage, and but few complaints are received concerning the manner in which the food is prepared.

The captain has full control of the mess and regulates all the details thereof. The provisions needed for the mess are supplied by the Government in great abundance. It should, therefore, keep the men in health and strength, and if it fails to do so and to be palatable to the healthy appetite, the fault is in its preparation.

"A few suggestions as to the cooking of the solders' ration are here offered.

"The garrison ration is so abundant that it cannot be wholly consumed, and, according to the liberal system of exchange of food, the surplus can be exchanged in such a way as to give still greater variety. In an organized camp this allows of excellent and varied cookery. But the ration when on the march is much less varied and contains little or no fresh meat or soft bread. It requires, therefore, more skill on the part of the cook to render it palatable and nutritious.

"When the ration consists of salt pork and hard-tack and a choice between beans, peas, rice, and hominy, with tea and coffee and a few condiments, how it is to be best prepared with limited time and with the simplest utensils rests entirely with the cook.

"On the march the breakfast must be substantial, as there can be often no other regular meal until night. The camp-fires or the portable ovens must do their work over night in order to effect this. Only in this way can baked beans or bean soup be added to the bacon and hard-tack, and this addition is necessary if the meal is to afford proper nutrition for the day, and if there is to be no other resource. Pea- and bean-meal will here find a place, and are much preferable to whole beans.

"If there is an issue of fresh beef, the trimmings of what has been used the day before may be simmered with such vegetables and flavors as are at hand and thickened with hard-tack broken in pieces. Such a soup or stew will be relished if well flavored.

"Corn-meal mush cooked long and slowly becomes a well-flavored and nutritious food, instead of being raw and irritating, as it is if cooked hastily. If cooked stiff, it may be moulded in cakes while yet warm, floured, and fried in fat. Hominy and oat-meal may be treated in the same way.

"Rice is an excellent breakfast dish and quickly cooked. It is relished with the addition of condensed milk or syrup."—*Manual for Army Cooks.*

So well fed are American troops that Europe has been making inquiries as to the character and cost of the ration with which they are supplied. These inquiries are the result of the military operations in which the United States has participated during the war with Spain and the Boxer disturbances in China.

Foreign military attachés who have observed the conduct of the American soldiers have made elaborate reports upon their equipment, their soldierly bearing, and their food. So flattering have been the reports made upon the

rations that the military officers attached to the foreign legations have received instructions to ascertain its components, the method of its preparation, its cost, and such other information as may enable modification of the rations in use abroad.

Brigadier-General William Crozier, who was the ordnance officer of the Peking relief expedition, stated that "the food of the American soldier exceeded in quantity, quality, and variety that of any of the allied forces."

The ration on the march to Peking included bacon, hard bread, sugar, coffee, rice, beans, and condiments. Even so, it was better than that carried by the troops of any other nation.

THE PAY DEPARTMENT, as the name implies, has charge of all matters pertaining to the payment of the officers and men of the Army. The enlisted men are mustered on the last day of each month, and paid at any time thereafter. Officers are paid individually on presentation of their pay accounts when due.

Retired officers receive 75 per cent of pay of their rank and no "allowances," which, practically, reduces them to half-pay.

The pay of the enlisted men, like that of the officers (with the exception of general officers), increases with length of service, and is subject to only a slight retention for washing, gloves, and a few minor items of equipment.

Twenty per cent increase on pay proper of all enlisted men is allowed in time of war.

The statement is frequently made that military service in this country offers a poor and unpromising field for intelligent and ambitious young men, since the pay accorded specially to private soldiers is so small, being thirteen dollars a month at the start and never rising above eighteen dollars. Those who regard these wages as meagre and insufficient will be surprised to know that in a recent debate on army reorganization in the English House of Lords, General Wolseley, former Commander-in-

chief of the British Army, quoted the wage-rate in the American Army as an example of the most generous treatment and "high pay." So, indeed, it seems, in comparison with the shilling a day paid to the British private. It was in this same debate that Lord Wolseley alluded to the American Army as the "best in the world."

The following is the United States Army pay table:

GRADE.	PAY OF OFFICERS IN ACTIVE SERVICE.*					
	PAY OF GRADE.		MONTHLY PAY.			
	Yearly.	Monthly.	After 5 years' service.	After 10 years' service.	After 15 years' service.	After 20 years' service.
			10 *per ct.*	20 *per ct.*	30 *per ct.*	40 *per ct.*
Lieutenant-general	$11,000	$916.67	.....	.....	.....	.....
Major-general	7,500	625.00	.....	.....	.....	.....
Brigadier-general	5,500	458.33	.....	.....	.....	.....
Colonel	3,500	291.67	$320.83	$350.00	†$375.00	$375.00
Lieutenant-colonel	3,000	250.00	275.00	300.00	325.00	‡333.33
Major	2,500	208.33	229.17	250.00	270.83	291.67
Captain, mounted	2,000	166.67	183.33	200.00	216.67	233.33
Captain, not mounted	1,800	150.00	165.00	180.00	195.00	210.00
Regtl. adjutant (captains mtd.)	2,000	166.67	183.33	200.00	216.67	233.33
Regtl. quartermaster (capts. mtd.)	2,000	166.67	183.33	200.00	216.67	233.33
Battalion and squadron adjutants	1,800	150.00	165.00	180.00	195.00	210.00
Regimental commissary	1,800	150.00	165.00	180.00	195.00	210.00
First lieutenant, mounted	1,600	133.33	146.67	160.00	173.33	186.67
First lieutenant, not mounted	1,500	125.00	137.50	150.00	162.50	175.00
Second lieutenant, mounted	1,500	125.00	137.50	150.00	162.50	175.00
Second lieutenant, not mounted	1,400	116.67	128.33	140.00	151.67	163.33
Chaplain	1,500	125.00	137.50	150.00	162.50	175.00
Cadet	540					

*Assistant surgeons are entitled to pay of captain after five years' service.
†The maximum pay of a colonel is by law $4,500 per annum.
‡The maximum pay of a lieutenant-colonel is by law $4 000 per annum.

TABLE OF MONTHLY PAY OF ENLISTED MEN OF THE UNITED STATES ARMY.

YEAR IN EACH ENLISTMENT	FIRST FIVE YEARS' SERVICE.*				
	1st year.	2d year.	3d year.	4th year.	5th year.
YEAR OF TOTAL CONTINUOUS SERVICE	1st year.	2d year.	3d year.	4th year.	5th year
RANK AND SERVICE.					
COMPANY.					
Cook—Engineers and Signal Corps	$20	$20	$21	$22	$23 *
Cook—Artillery, Cavalry, and Infantry	18	18	19	20	21
Private—Artillery, Cavalry, and Infantry					
Private—(Second class) Engineers and Ordnance and Signal Corps	13	13	14	15	16
Musician—Engineers, Artillery, and Infantry					
Trumpeter—Cavalry					
Wagoner—Cavalry	14	14	15	16	17
Artificer—Infantry and Field Artillery					
Corporal—Artillery, Cavalry, and Infantry					
Farrier and Blacksmith—Cavalry	15	15	16	17	18
Saddler—Cavalry					
Mechanic—Heavy Artillery (and siege batteries)	18	18	19	20	21
Sergeant—Artillery, Cavalry, and Infantry	18	18	19	20	21
Private—(First class) Engineers and Ordnance and Signal Corps	17	17	18	19	20
Corporal—Engineers, Ordnance, and Signal Corps	20	20	21	22	23
First Sergeant—Artillery, Cavalry, and Infantry	25	25	26	27	28
Sergeant—Engineers, Ordnance, and Signal Corps	34	34	35	36	37
Sergeants—(First class) Signal Corps	45	45	46	47	48
Quartermaster Sergeant—Cavalry, Infantry, and Artillery	18	18	19	20	21
Stable Sergeant—Field Artillery	18	18	19	20	21

*After five years' continuous service, $2 extra per month is allowed.

REGIMENT.					
Commissary Sergeant—Cavalry and Infantry	34	34	35	36	37
Sergeant-Major—Artillery, Cavalry, and Infantry.	34	34	35	36	37
Quartermaster Sergeant—Artillery, Cavalry, and Infantry					
Sergeant-Major and Quartermaster Sergeant—Engineers	36	36	37	38	39
Squadron Sergeant-Major—Cavalry	25	25	26	27	28
Battalion Sergeant-Major—Infantry					
POST.					
Ordnance Sergeant					
Commissary Sergeant					
Post Quartermaster Sergeant	34	34	35	36	37
Electrician Sergeant					
HOSPITAL CORPS.					
Hospital Steward	45	45	46	47	48
Acting Hospital Steward	25	25	26	27	28
Private	18	18	19	20	21
BAND—CAVALRY, ARTILLERY, AND INFANTRY.					
Chief Musician	60	60	61	62	63
Drum-Major	25	25	26	27	28
Chief Trumpeter—Cavalry and Artillery	22	22	23	24	25
Principal Musician—Cavalry, Artillery, and Infantry	22	22	23	24	25
Sergeant	18	18	19	20	21
Corporal	15	15	16	17	18
Cook (Cavalry, Artillery, and Infantry)	18	18	19	20	21
Private	13	13	14	15	16

	FIRST FIVE YEARS' SERVICE.*				
YEAR IN EACH ENLISTMENT	1st year.	2d year.	3d year.	4th year.	5th year.
YEAR OF TOTAL CONTINUOUS SERVICE	1st year.	2d year.	3d year.	4th year.	5th year.
BAND—U. S. MILITARY ACADEMY.					
Musician—(First class)	$34	$34	$35	$36	$37
Musician—(Second class)	25	25	26	27	28
Musician—(Third class)	17	17	18	19	20

*After five years' continuous service, $2 extra per month is allowed.

PAY OF VETERINARIANS, HOSPITAL MATRONS, AND CLERKS AND MESSENGERS AT MILITARY HEADQUARTERS.

Veterinarian, 1st class (senior)	$ 125 per month
Veterinarian, 2d class (junior)	75 per month
Hospital Matron	10 per month
Clerk, class 4	1,800 per annum
Clerk, class 3	1,600 per annum
Clerk, class 2	1,400 per annum
Clerk, class 1	1,200 per annum
Clerk, class E	1,000 per annum
Messenger	60 per month

THE MEDICAL DEPARTMENT of the Army is charged with the duty of caring for the sick and wounded, and has charge of the hygiene of camps and garrisoned posts, both in peace and war. At all permanent garrisons hospitals are provided of a substantial nature, while troops in the field are provided with hospital tents for the use of the sick. Medical officers, known as surgeons, are commissioned with assimilated rank to that of line officers of different grades to serve in the Medical Department. In the United States Army they are assisted by members of the Hospital Corps, who are enlisted as such, by the Army Nurse Corps (female), and by physicians hired under contract for special periods, known as contract surgeons and contract dental surgeons. The commissioned officers of the United States Medical Department are appointed to the lowest grade after a severe competitive examination, having the relative rank of first lieutenants of cavalry. After five years' service, they are promoted to rank as captains, and thereafter are promoted, in order of seniority, as vacancies occur.

The duties of hospital stewards and acting hospital stewards are, under the direction of the medical officer, to look after and distribute hospital stores and supplies; to care for hospital property; to compound and administer medicines; to supervise the preparation and serving of food; to maintain discipline in hospitals and watch over their general police; to prepare the hospital reports and returns; to supervise the duties of the members of the hospital corps in hospital and in the field, and to perform such other duties connected with their positions as may, by proper authority, be required of them.

THE ORDNANCE DEPARTMENT has charge of the purchase or the manufacture of all weapons in use by the Army; such as guns and cannon, rifles, revolvers, sabers, etc., also of ammunition, also of artillery carriages and equipments, apparatus for the service of the artillery, and

all necessary tools, materials, and machinery for manufacturing ordnance articles and supplies.

The Ordnance Department occupies certain places, known as dépôts and arsenals, for the manufacture and safe-keeping of the above-named articles until they are required by the troops.

The modern conditions of warfare demand the service of a trained body of experienced officers for all matters connected with the ordnance of the Army. The officers are transferred from the line from time to time, and a high degree of professional efficiency is expected of them.

The high standard of the Ordnance Department is absolutely essential to the efficiency of the Army. With defective ordnance and poor ammunition the bravest troops will be helpless on the battlefield.

TARGET PRACTICE.

The line of fire is the axis of the bore prolonged.

The plane of fire is a vertical plane, through the line of fire.

The line of sight is the right line from the eye to the object to be hit, passing through the front and rear sights.

The natural line of sight is the right line through the lowest notch of the rear sight, and the front sight.

To aim the piece correctly, the eye, the notch in the rear sight, the front sight, and the object, must be in the same right line, lying in the plane of fire.

An object is at *point-blank* distance when it can be hit by aiming directly at it along the natural line of sight.



A B, line of fire. *C D*, natural line of sight. *E F*, artificial line of sight. *G*, point-blank. *H*, artificial point-blank.

(For further information in regard to target practice, see "Small-Arms Firing Regulations, U. S. Army.")

SIGNAL CORPS.

In the American Army this corps is considered as one of the most important. It collects information of every nature, and procures intelligence of the most varied character. In the field, the officers of this service must have a perfect knowledge of the terrain over which the army is called to operate. They collect and transmit information of all kinds, which they obtain by means of posts of observation, spies, guides, etc.

THE SIGNAL CORPS has charge of the construction, repair, and operation of military telegraph lines and cables, field telegraph trains, balloon trains, and has supervision of the instruction of the Army in military signaling by means of flags, flash-lights, torches, and other methods of communication.

The following instructions governing signaling have been published by the War Department:

ARMY CODE CARD.—THE MYER SYSTEM FOR U. S. ARMY AND U. S. NAVY SIGNALING (PRESCRIBED BY G. O. No. 32, A. G. O., 1895).

A.....22	J.....1122	S.....212
B.....2112	K.....2121	T.....2
C.....121	L.....221	U.....112
D.....222	M.....1221	V.....1222
E.....12	N.....11	W.....1121
F.....2221	O.....21	X.....2121
G.....2211	P.....1212	Y.....112
H.....122	Q.....1211	Z.....2222
I.....1	R.....211	tion.....1112

NUMERALS.

1.....1111	2.....2222
3.....1112	4.....2221
5.....1122	6.....2211
7.....1222	8.....2111
9.....1221	o.....2112

ABBREVIATIONS.

a.....after	n.....not	ur.....your
b.....before	r.....are	w.....word
c.....can	t.....the	wi.....with
h.....have	u.....you	y.....yes

CONVENTIONAL SIGNALS.

End of a word. 3
End of a sentence. 33
End of a message. 333
xx3. . . . . numerals follow (or) numerals end.
sig. 3. . . . . signature follows.
Error. 12 12 3
Acknowledgment, or "I understand". 22 22 3
Wait a moment. 1111 3
Repeat after (word). . . . . 121 121 3 22 3 (word)
Repeat last word 121 121 33
Repeat last message. 121 121 121 333
Move a little to right. . . 211 211 3
Move a little to left. 221 221 3
Signal faster 2212 3
Cease signaling. 22 22 22 333

I C U—International Code Use.
T D U—(Navy) Telegraph Dictionary Use.
G L U—(Navy) Geographical List Use.
G S U—(Navy) General Signal Use.
N L U—Navy List Use.
V N U—Vessel's Numbers Use.
C A U—Cipher "A" Use.
C B U—Cipher "B" Use.
C C U—Cipher "C" Use.
} These calls are for preconcerted use in or with the Navy.

INSTRUCTIONS FOR USING THE SYSTEM.

The whole number opposite each letter or numeral stands for that letter or numeral.

TO SIGNAL WITH FLAG, TORCH, HAND-LANTERN, OR BEAM OF SEARCH-LIGHT.

There are one position and three motions.

The first position is with the flag or other appliance held vertically, the signalman facing squarely toward the station with which it is desired to communicate.

The first motion ("one" or "1") is to the right of the sender and will embrace an arc of 90°, starting with the vertical and returning to it, and will be made in a plane at right angles to the line connecting the two stations.

The second motion ("two" or "2") is a similar motion to the left of the sender.

The third motion ("front," "three," or "3") is downward directly in front of the sender, and instantly returned upward to the first postion.

Numbers which occur in the body of a message must be spelled out in full. Numerals may be used in signaling between stations having naval signal books, using the code calls.

The beam of search-light will be ordinarily used exactly as a flag, the first position being a vertical one.

To break or stop the signals from the sending station, make with the flag or other signal 12 12 12 continuously.

To use the torch or hand-lantern, a foot-light must be used as a point of reference to the motion. The lantern is more conveniently swung out upward, by hand, from the foot-light for "1" and "2" and raised vertically for "3."

TO SEND A MESSAGE.

To call a station, signal its call letter until acknowledged; if the call letter be not known, signal "E" until acknowledged. To acknowledge a call, signal "I understand," followed by the call letter of the acknowledging station.

Make a slight pause after each letter and also after "front." If the sender discovers that he has made an error, he should make 3, followed by 12 12 3, after which he begins the word in which the error occurred.

FLASH SIGNALS WITH LANTERN, HELIOGRAPH, OR SEARCH-LIGHT.

Use short flash for "1," two short flashes in quick succession for "2," and a long steady flash for "3." The elements of a letter should be slightly longer than in sound signals.

The first position is to turn a steady flash on the receiving station; the signals are made by alternate obscuration and revelation.

To call a station, make the call letter until acknowledged. Each station will then turn on a steady flash and adjust. When the adjustment is satisfactory to the called station, it will cut off its flash, and the calling station will proceed with its message.

If the receiver sees that the sender's mirror needs adjusting, he will turn on a steady flash until answered by a steady flash. When the adjustment is satisfactory, the receiver will cut off his flash and the sender will resume his message.

To break the sending station for other purposes, turn on a steady flash and call for repeat, etc., as occasion requires. All other conventional signals are the same as for the flag, etc.

SOUND SIGNALS WITH FOG-WHISTLE, FOG-HORN, OR BUGLE.

Use one toot (about half-second) for "1," two toots (in quick succession) for "2," and a blast (about two seconds long) for "3." The ear, and not the watch, is to be relied upon for the intervals.

The signal of execution for all tactical or drill signals will be one long blast, followed by two toots in quick succession.

In the use of any other appliance, such as a bell, by which a blast cannot be given, three strokes in quick succession will be given in place of the blast to indicate "3."

When more than two vessels are in company, each vessel, after making "I understand," should make her call letter, that it may be certain which vessel has acknowledged.

ADDITIONAL INSTRUCTIONS.

Each word, abbreviation, and conventional signal is followed by "3."

To start the sending station, signal 121 121 3 22 3, followed by the last word correctly received; the sender will resume his message, beginning with the word indicated by the receiver.

To acknowledge the receipt of a message, signal 22 22 3, followed by the personal signal of the receiver. Each station should have its characteristic *call letter*, as Washington, W, and each signalist his *personal signal*, as Jones, Jo.

The full address of a message shall be considered as on sentence, and will be followed by the signal "33."

THE ENGINEER CORPS of the United States Army has charge of the construction and maintenance of what is known as the second line of defense (the Navy having the first), which consists of the permanent fortifications for the protection of the sea coast and of important strategic points. It includes in its work the construction of submarine mines and torpedoes. A system of defense by means of mines and torpedoes serves also for purposes of instruction to the officers at the Torpedo School.

In time of war engineers should repair roads, build bridges, construct field and permanent fortifications, make maps, and plan the sieges of fortified places. In time of peace the United States Engineer Corps is in charge of the work of improving rivers and harbors, for which purpose millions of dollars are annually appropriated by Congress.

Engineer troops are organized as infantry, and may practically be considered as troops of the line, although, for technical considerations, they are classed in one of the staff departments.

MAPS AND RECONNAISSANCES.

1. The commanding officer of every body of troops ordered to march selects a competent person, preferably a commissioned officer, to whom he intrusts the special duty of making the field-notes and keeping the journals hereinafter mentioned for the preparation of a map of the route

traversed. The person so selected is relieved of so much of his routine duties as will enable him to perform this duty. Daily, or more frequently, the commanding officer inspects and verifies the notes and journal.

2. Journals of marches are kept in note-books, and route reconnaissances are recorded on blanks. The books and blanks will be furnished by the Engineer Department. If they cannot be obtained, they are prepared according to standard forms as nearly as practicable.

3. Note-books should be freely used, and, to guard against the loss of valuable data, copies are made, verified, and retained, and the originals forwarded to department headquarters at every convenient opportunity. Whenever a sufficient halt is made, a map of the route up to that point, together with a report thereon, is transmitted in the same manner. These notes are not omitted even when passing over known routes.

4. General instructions for the use and preservation of instruments, the character of the observations to be specially made, and the methods of recording them will be found in printed notes in the book and on the form which the Engineer Department supplies.

REGIMENTAL STAFF.

THE REGIMENTAL STAFF OFFICERS are appointed from the captains, and consist of the adjutant, the quartermaster, and the commissary, and they are so designated, respectively; they are appointed by the regimental commander, who reports his action to the Adjutant-General. The appointments of the quartermaster and commissary are made subject to the approval of the Secretary of War. The battalion staff officers are appointed from the lieuten ants, and consist of the adjutant and the quartermasters and commissary, and they are designated as the battalion (or squadron) adjutant, and as battalion (or squadron) quartermaster and commissary, respectively. They are

appointed by the regimental commander upon the recommendation of the battalion commander. When a battalion is detached and serving at such a distance from regimental quarters that more than fifteen days are required for exchange of correspondence by mail, the battalion staff officers are appointed by the battalion commander, who immediately notifies the regimental commander and the Adjutant-General. Appointment of staff officers are not antedated, and take effect on the day on which actually made. The officers are entitled to the pay pertaining to their appointments from the date they enter upon the duty under it.

The adjutant, under the direction of the regimental commander, has charge of the various rosters of service; he makes, publishes, and verifies all details, keeps the records of the regiment, and performs all such military duties with troops as are required by the regulations. Through him the regimental commander communicates with the officers and men of his command.

The adjutant should be courteous to and on friendly terms with the officers of the command he represents, and will avoid all discussions of the orders or military conduct of his superiors. He should inform himself upon all points of military usage and etiquette, and on proper occasions aid with his advice and experience the subalterns of the regiment, especially those just entering the service. He endeavors at all times to exert the influence belonging to his station in sustaining the reputation, discipline, and harmony of the regiment.

The adjutant, quartermaster, and commissary are, under the regimental commander, responsible for the discipline and efficiency of the non-commissioned staff and band.

The quartermaster is responsible for all quartermaster's supplies of the regiment, and may be required to perform the duties of quartermaster of the post where he is

stationed. The commissary is responsible for all subsistence supplies of the regiment, and may be required to perform the duties of commissary of the post where he is stationed.

A regimental staff officer may be assigned to duty with a company or to any staff duty which his regimental commander may impose. A battalion staff officer is subject to any duty which the commanding officer may impose.

The regimental non-commissioned staff officers consist of the sergeant-major, the quartermaster sergeant, and two color sergeants, and are appointed by the regimental commander. The battalion non-commissioned staff officers are the battalion sergeant-majors, and will be so designated. They are appointed by the regimental commander upon the recommendation of the battalion commander. When a battalion is detached and serving at such a distance from regimental headquarters that more than fifteen days are required for exchange of correspondence by mail, the battalion non-commissioned staff officers are appointed by the battalion comander, who will immediately notify the regimental commander. Each non-commissioned staff officer is furnished with a warrant, signed by the office making the appointment and countersigned by the adjutant. The appointment takes effect upon the day on which it is made, and the warrant may be continued in force upon discharge and re-enlistment, and continuance may be noted on the warrant by the adjutant. Any non-commissioned staff officer may be reduced to ranks by sentence of a court-martial, or by order of the commander having authority to appoint such non-commissioned officer. Non-commissioned staff officers will preferably be selected from the non-commissioned officers of the regiment most distinguished for efficiency, gallantry, and soldierly bearing.

VETERINARIANS.

Veterinarians are appointed by the Secretary of War, subject to competitive examinations as to eligibility, capacity, and fitness. Veterinarians are required for service in the cavalry and field artillery. They are allowed the pay and allowance of a second lieutenant of cavalry —$1,500 per annum, with 10 per cent increase for each period of five years' service up to twenty years, and quarters. They are not commissioned officers, but wear the uniform of a second lieutenant without the shoulder-straps.

Anyone desiring to take the examination should make application to the Adjutant-General of the Army, Washington, D. C., enclosing proper testimonials.

Applicants must be citizens of the United States, not less than 22 nor more than 35 years of age; must be graduates of some recognized veterinary college; must be of good moral character, and physically sound. They will be required to pass a written examination in the following subjects:

Basis Examination.

English grammar;
Arithmetic;
Geography;
History.

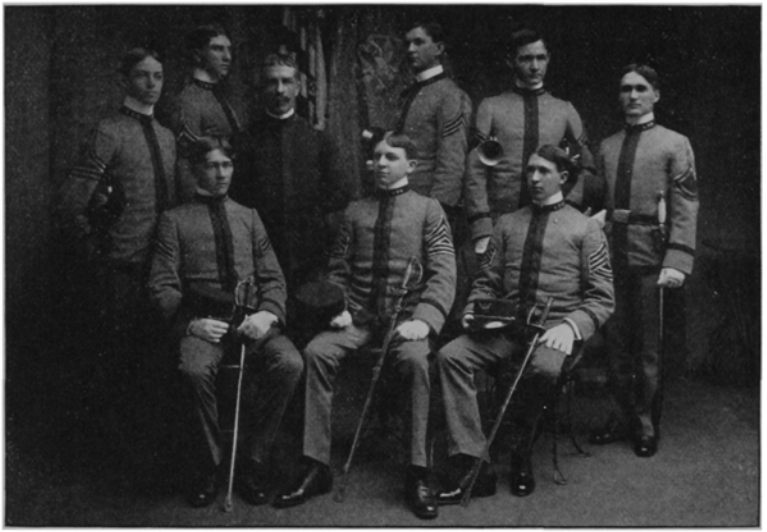
Subject Examination.

Anatomy and physiology;
Pathology;
Practice of medicine;
Descriptive and operative surgery;
Materia medica and therapeutics;
Sanitary medicine;
Conformation of the horse and examination for soundness;
Horse-shoeing;

Meat inspection;
Veterinary hygiene:
General;
Feeding and watering;
Stabling and care of animals in garrison and field;
Saddling, bitting, packing, etc.

THE POST NON-COMMISSIONED STAFF.

The post non-commissioned staff consists of ordnance, post-commissary, post quartermaster, and electrician sergeants. They are appointed by the Secretary of War, after due examination, from sergeants in the line of the Army; ordnance sergeants, from those who have served at least eight years in the Army, including four years as non-commissioned officers, and who are less than forty-five years of age; commissary sergeants, from those who have served five years in the Army, including three years as non-commissioned officers; post quartermaster sergeants, from those who have served four years in the Army; electrician sergeants, as a rule, from those who have served three years in the Army and about one-third of that time as non-commissioned officers, exceptions being made only in cases of particularly well equipped applicants from civil life.



STAFF AT LOUISIANA STATE UNIVERSITY.

CHAPTER V.

THE NATIONAL GUARD—1, DUTIES OF OFFICERS; 2, CONSTITUTIONAL PROVISIONS.

The organized uniformed Militia of the several States is known as the National Guard. Each State has its own military laws and regulations, which conform more or less to the system and regulations in use in the United States Army.

The Governor of the State is the Commander-in-chief of all military and naval forces of the State, except when they are called into the service of the United States.

ADJUTANT-GENERAL.

Each State has an Adjutant-General, and all orders relating to the military operations, movements of State troops, or to the discipline of the Militia of the State, and all orders and regulations for its information or government, originating with the Governor, are issued through the office of the Adjutant-General.

The Adjutant-General of a State has control of all returns, reports, and archives pertaining to the Militia, of the enlistment, muster-in and muster-out, or discharge, of the Militia; of the records of the Volunteers in the service of the United States; of promulgating all laws and resolutions of the Legislature relating to the military establishment, with such regulations as may be necessary to carry them into effect.

The Adjutant-General is the chief of the staff of the Commander-in-chief; he is also in some States the inspector-general, and, in time of peace and when not otherwise ordered, he performs in some States the duties of quarter-master-general and commissary-general of subsistence.

Everything relating to the effective state of the National Guard, to organization, instruction, discipline, and to official returns relating to these different matters, comes within the province of the Adjutant-General.

The Adjutant-General is the regular channel of communication with the Commander-in-chief. All correspondence relating in any way to the National Guard, from whatever source, intended for the Governor, should be addressed to the Adjutant-General.

All orders, special instructions, and general regulations issued by the Commander-in-chief, relating to the National Guard are transmitted or published by the Adjutant-General.

It is the duty of the Adjutant-General to report in writing to the Commander-in-chief each year the state of the National Guard as to its strength in officers and soldiers, the number of companies of each arm of the service, the total strength of each, and the strength of each arm. He should report also the number, character, and quality of the arms, accouterments, and other property of the State in the hands of the National Guard. Similar reports are made to the Secretary of War.

All reports and returns of staff officers of the Commander-in-chief, inspecting officers and commanding officers; the proceedings of all courts of inquiry, general courts-martial, boards of examiners, and other military boards; reports of rifle-firing, applications and communications from officers, and all other writings and papers which may be required, should be transmitted through the proper channel to the adjutant-general. Quarterly returns of public property are forwarded direct to the Adjutant-General; bonds of officers are also sent direct to the Adjutant-General. The Adjutant-General prepares and transmits to commissioned officers their commissions, and, in a book which is the roster of the National Guard, he registers the same and notes therein, as they occur, all changes from any cause.

NATIONAL GUARD INSPECTORS.

Officers detailed to make inspections report the precise condition of the command, its efficiency, discipline, and wants. In their reports they should make such recommendations and suggestions as they may consider for the interests of the service.

Inspections should be made under specific orders, which should be exhibited to the officers whose troops or affairs are to be examined. Commanding officers should see that every facility is afforded for such examination.

At all general inspections the inspecting officer should critically observe and report upon the members present, the military appearance and bearing of the troops, the condition of their arms and equipments, their discipline, their dress and appointments, their proficiency in tactical instruction, and the condition and character of the armory. When inspections are made at camps, he should report also upon the police of the quarters and knowledge of the duties of the sentinel. The quality, condition, and quantity of clothing and other supplies, the condition of hospitals, and the care and attention bestowed upon patients are all matters for the attention and report of the inspecting officer when required.

An inspecting officer should make a careful and complete examination of all company record books, treasurer's accounts, files of orders, and official letters, and make a full statement of the condition thereof in his report.

The sphere of inquiry of inspecting officers in specific cases is defined and limited by the orders they receive; generally it includes every branch of military affairs; whether the military laws, regulations, and orders are fully complied with; whether the officers are properly instructed and efficient in their arm of the service; whether the number of men in ranks at inspection corresponds with the returns, and how absentees are accounted

for; as to the discipline, military appearance, and bearing of the troops; their instruction in all military exercises and duties; the nature and frequency of exercises and recitations in tactics; the rifle practice; the state of their batteries or arms, equipments, and accouterments of all kinds; the sufficiency, uniformity, and fit of their clothing.

Special report should be made in case of any officer of intemperate habits, or who has improper associates, or is unfit for active service by infirmity or other cause.

Before transmitting their reports, officers detailed to make inspection should endorse thereon the remedies that have been applied by the local commanders for the correction of irregularities that may have been brought to their notice.

ADMINISTRATION.

The administrative duties of a regiment are conducted through its staff officers and battalion and company commanders, under the general supervision of the regimental commander; the latter is responsible so far as his orders affect his subordinates, who are accountable for the management of their respective departments.

Administration is greatly simplified by requiring those officers who are accountable to perform their whole duty, each in his own department or command; it being much easier to manage affairs through a few than to attempt to direct all individually.

DUTIES OF REGIMENTAL AND BATTALION OFFICERS.

COLONEL OR COMMANDING OFFICER.

A regimental commander is not only responsible to his superior officers and to the State for the drill, discipline, and general efficiency of his command in its military capacity, but he is in a great measure responsible for its civil and social tone. He may be thoroughly conversant

with his duty as a soldier and perform it faithfully so far as regards the actual duty in the presence of his assembled command; but, if his labor and vigilance stop there, he has done but a part of his proper work.

A regimental commander should continually labor for the instruction and efficiency of his regiment. He should encourage among his officers harmonious relations and a friendly spirit of emulation in the performance of duty. His timely interference to prevent disputes, his advice to the inexperienced, and immediate censure of any conduct liable to produce dissension in the regiment, or to reflect discredit upon it, are of great importance in securing and maintaining its efficiency. In such efforts he is entitled to the assistance of every one of his subordinates.

The commanding officer of each regiment may order drills by any company in his command, of not less than one hour each, and shall inspect at least one drill of each company every year, or detail a field officer for that purpose.

When a regiment is serving independently, the commanding officer should publish in orders the hours for the various roll-calls, and when and what drills are to take place. If serving with other organizations, the commanding officer prescribes these hours.

Permission for any organization to leave the State can be accorded only by the Governor.

Commanding officers, by means of official reports and orders, and use of staff officers, and by personal activity, should familiarize themselves with every detail in the administration of their commands. They should visit the armories of their companies, and in camp their quarters, kitchens, sinks, and stables, or cause their staff officers to make such visits.

The commanding officer should carefully examine company records and papers, and cause the correction of errors.

So far as practicable, regimental commanders, whether permanent or temporary, should be exempt from any detail that will detach them from their commands while in active service.

The colonel is himself personally responsible for all property issued to his headquarters, making requisitions and returns in his own name, although he may require his quartermaster to keep the property book, and to fill out the necessary returns or requisitions; but this in no way affects his personal responsibility. The colonel has general oversight of all State property in the hands of his command; he must see that it is not wasted or injured through neglect, and that it is not loaned, or improperly used.

Colonels, when in camp, subject to orders of the commanding officer of such camp, regulate the issue of passes within the limits of their own command.

"The principle is a good one where the colonel commands the officers of his regiment and holds them to a punctilious performance of all details that properly fall to them in connection with their men. They should be particularly careful in the accounts, and in keeping themselves well informed concerning the necessary wants of the soldiers. It is not admitted among well-regulated troops that the regimental commander can give the best attention to his own duties, and at the same time assume the functions of the subordinate officers to whom he and the Regulations must delegate the details, and whose business it is in their turn to perform those duties commensurate with their positions under the general supervision of the colonel."

LIEUTENANT-COLONEL.

When in command, the duties of the lieutenant-colonel are as prescribed for the colonel, with which he should be thoroughly familiar.

When not in command, he is liable to detail as field officer of the day, and to command large detachments; also to perform delicate or responsible duties.

MAJOR.

When in command of his battalion, the duties of a major are those prescribed in Drill Regulations and in

orders given or transmitted to him by his regimental commander. He stands in the same relation to his battalion as the colonel to the regiment, and should be in full accord and harmony with his subordinates. He should inspect each company of his command in its armory at least once each year, and make a report thereof.

REGIMENTAL ADJUTANT.

The adjutant, as chief of the regimental staff, is the official organ of the regimental commander, who communicates through him with the command.

The adjutant should inform himself upon all points of military usage and etiquette, and should not only have a thorough knowledge of his own special duties, but should have a general knowledge of the duties of all the officers of the regiment. He should also see that orders are obeyed, and that the required reports and returns are made.

Ordinarily the commanding officer directs what orders are to be published to the regiment. All official communications to the officers of the regiment are signed by the adjutant and transmitted by him, while all communications to a superior headquarters are signed by the commanding officer.

The adjutant should not give an order in the name of his colonel in a special or peculiar case; but in cases involving general principles, in which he can readily understand, from established precedents, what would be the commander's decision, he may with propriety assume to give orders in his name; he should, however, feel sure that he will be sustained.

The adjutant has charge of the regimental books, records, papers, and blanks, and it is his duty to master thoroughly the methods of keeping them, as well as of conducting correspondence, issuing orders, and making returns and reports. To this end, he should carefully study what is laid down in relation to officers of the staff

generally, and to those of the Adjutant General's department particularly.

The adjutant makes all required details of officers from the roster, and of enlisted men according to the strength of the companies respectively.

The adjutant should be thoroughly familiar with the rank and seniority of each officer of his regiment, in order that he may readily assign them to their positions in regimental formations and guard-mountings.

The adjutant should know at all times, for the information of his commanding officer, the actual strength of the regiment, and should closely examine the morning reports and the reports of drill or other duty, returning for correction those which are erroneous.

The regimental band and field music are under the charge of the adjutant; he should see that they are properly instructed and familiar with their duties, and prepared for inspections and reviews.

BATTALION ADJUTANT.

The duties of battalion adjutants are, in respect of their battalions, the same as those prescribed for regimental adjutants.

QUARTERMASTER.

The duties of a quartermaster call for experience, discretion, and business qualifications. He draws, purchases, and issues supplies, and has charge of all property in the regiment not receipted for by the company commanders, or in immediate charge of other officers of the staff. He provides transportation and quarters for officers, men, and animals.

Quartermasters, in obtaining and turning over or issuing property and supplies, follow the regulations, and use the forms provided or approved by the Adjutant-General.

The quartermaster's requisitions or estimates must be approved by the colonel, who also directs what he desires to have done.

Much of the responsibility that in active service belongs to the quartermaster falls, in the National Guard, upon the company commanders, they being responsible for all public property in the hands of their companies, making requisitions through the colonel for transportation, necessary supplies, and transferring property in case of their withdrawal from service or position.

Previous to encampments, regimental quartermasters may be ordered to the ground before the arrival of the troops, to command and have charge of the working parties from the several companies and to superintend the erection of tents and laying out of the regimental camps. In case of encampments of bodies larger than a regiment, this will be done under the direction of the quartermaster-general.

COMMISSARY.

The duties of the commissary are similar to those of the quartermaster, except that they appertain only to the purchase, drawing, care, and issuing of subsistence supplies to troops, the transportation for the same being furnished by the quartermaster. He keeps accurate account of all subsistence supplies purchased and issued, and makes a detailed report to the regimental commander, submitting therewith approved vouchers, which accounts are paid by the quartermaster upon the order of the regimental commander. In his report for any annual encampment he should embody a statement showing the amounts due to each company or regimental headquarters on account of commutation of rations under allowance by the State.

MEDICAL OFFICERS.

Medical officers must be legally qualified to practice medicine in the State, and all appointments are subject to the approval of the Surgeon-General.

They are responsible to the commanding officers of their regiments that instruments, medicines, and stores are ready at all times when necessary, properly arranged for use or transportation.

The assistant surgeons assist the surgeon, and are subject to his orders, under those of the colonel. In the absence of the surgeon, the senior assistant surgeon assumes his duties and responsibilities.

At sick-call, the enlisted men of each company who require medical attention will be conducted to the hospital by a non-commissioned officer, who will hand to the surgeon, in his company sick-book, a list of all sick of the company, on which the surgeon shall state who remain or go into hospital, who return to quarters as sick or convalescent, of what duties the convalescents in quarters are capable, what cases are feigned, and any other information in regard to the sick which he may have to communicate to the company commander. The sick-book will be returned by the non-commissioned officer to the first sergeant. A morning report of the sick will be made out by the surgeon and sent to the adjutant's office.

Soldiers in hospital will be mustered on the rolls of their command, if the latter are present at the post.

The hospital is always open to the commanding officer's inspection, and should be thoroughly examined to determine whether it is properly managed.

The decision of medical officers upon sick cases is final, and will never be interfered with to the prejudice of the patient.

Whenever a patient is transferred from the care of one medical officer to another, the account of his case, taken from the records, should accompany him.

Medical officers keep such books and records as may be prescribed.

All medical officers are liable to be detailed as members of courts-martial and military boards.

Medical officers examine applicants for enlistment in the National Guard, and examine officers and men who are to be discharged for disability.

The attention of medical officers should be given to the quality and methods of preparing food given to troops; reports and suggestions thereupon, when necessary, will be made to commanding officers, who will use all possible efforts to have the recommendations of medical officers carried into effect.

Medical officers have the entire sanitary care of the commands to which they belong. The health of the men depends largely upon good air and ventilation, pure water, good, sufficient, and well-cooked food, cleanliness, and proper clothing.

In camps or garrison, medical officers examine the sinks at least once in each day, preferably in the morning, reporting to the regimetal commmander any neglect. They see that disinfectants are used when needed.

INSPECTOR OF RIFLE PRACTICE.

The regimental inspector of rifle practice has charge of all rifle practice in his regiment and sees that detailed reports are kept and forwarded as prescribed by the Commander-in-chief.

SIGNAL OFFICER.

The signal officer is charged with the duty of instructing the signal corps of his regiment, and should perform such service connected with his department as may be required by the regimental commander. He will make such returns and reports as may be prescribed by the Commander-in-chief.

CHAPLAIN.

The chaplain is recognized as entitled to the same consideration and courtesy as an officer having the rank of captain, without the title or privilege of command. He is subject to the same rules and regulations as other officers of the National Guard. He does not wear a sword. At parades his place is on the left of the commissioned staff.

No person should be appointed to the office of chaplain who is not a regularly ordained minister of some religious denomination, and who is not known to be in good standing as such.

It is the duty of the chaplain, having previously signified his intention to the medical officer in charge, to visit the sick in hospital or in quarters, in order to afford religious advice and consolation.

All chaplains should be prepared to hold appropriate religious services at military funerals. It is their duty to hold public religious services, when on duty with their commands, at least once each Sunday when practicable, and at such other times as their commanding officers authorize.

All officers are required to do everything in their power to aid chaplains in the discharge of their duties.

DUTIES OF REGIMENTAL AND BATTALION NON-COMMISSIONED STAFF.

The non-commissioned staff are appointed in regimental orders by their respective permanent regimental commanders, and are furnished with warrants of their rank, signed by the commanding officer and countersigned by the adjutant.

REGIMENTAL SERGEANT-MAJOR.

The regimental sergeant-major is the ranking non-commissioned officer of the regiment; he assists the adjutant in the performance of his duties.

Before eight o'clock in the morning the sergeant-major receives the battalion morning reports from the battalion sergeant-majors, and gives them the orders for the day and orders to be placed in the battalion order-book; at call he furnishes the battalion sergeant-majors and first sergeants with the details required from their respective battalions and companies for the morrow.

The sergeant-major should be a model soldier for the regiment in his dress and military deportment. His example and punctual performance of duty go far towards influencing proper discipline. He should be conversant with the duties of all non-commissioned officers and privates.

QUARTERMASTER SERGEANT.

The quartermaster sergeant is appointed by the regimental commander, on the recommendation of the regimental quartermaster, and should be exclusively under the orders of the latter; and all orders the sergeant has to execute should properly be transmitted through his chief.

His duties are to take the immediate charge of the property for which the regimental quartermaster is responsible, and direct the employees and details sent to work for the quartermaster's department.

COMMISSARY SERGEANT.

The commissary sergeant is appointed by the commanding officer of the regiment on the recommendation of the regimental commissary, and is under his direction, and from him he receives his instruction. He has the immediate control of the commissary stores, and superintends the issues to the companies.

HOSPITAL STEWARD.

The hospital steward is appointed usually upon the recommendation of the surgeon, whom he is to assist. He

should be familiar with medicines and capable of putting up the prescriptions ordered, and must be duly licensed by the State Commissioners of Pharmacy.

ACTING HOSPITAL STEWARD.

The acting hospital stewards are appointed upon the recommendation of the surgeon, and should be qualified to take the place of the hospital steward when the occasion demands.

BAND LEADER.

The band leader is the musical instructor of the band.

PRINCIPAL MUSICIANS.

The principal musicians are required to sound the trumpet signals on drill, and to assist the drum-major in imparting musical instruction to the field musicians; the latter are under the orders of their company commanders except when assembled for duty or instruction.

DRUM-MAJOR.

The drum-major performs duties with reference to the band similar to those of the first sergeant in relation to the company. He parades the band at roll-call, calls the roll, and reports the result to the adjutant, under whose orders and instructions he acts. He superintends the police of the quarters of the musicians, and has the immediate care of public property in use by them.

The drum-major drills and instructs the band in their military duties; the company musicians are also under his immediate instruction at all regimental parades and encampments.

SERGEANT OF THE SIGNAL CORPS.

The sergeant of the signal corps is appointed upon the recommendation of the signal officer, and should be competent to instruct the corps in all their duties.

BATTALION SERGEANT-MAJOR.

The duties of battalion sergeant-majors are, in respect to their battalions, the same as those prescribed for regimental sergeant-majors.

BANDS AND FIELD MUSIC.

The regimental band is subject to all the laws and regulations for the government of the National Guard, and must attend the stated roll-calls, and be subject to the orders relating to the general government and police of camp. It is under the immediate charge of the drum major, who is responsible directly to the adjutant.

The field music consists of the company trumpeters, fifers or drummers. They are regularly enlisted in companies, of which they are a part, and at all regimental parades or encampments are under the immediate charge of the drum-major when united or posted with the band, or assembled for instruction. At all other times they are under the orders of the company commander, and parade with the company.

COLOR SERGEANTS

The colonel selects the color-bearer from the sergeants of his regiment, as prescribed in the Drill Regulations; the selection, if permanent, is announced in orders and entitles the appointee to wear the color sergeants' chevron. He is not ordinarily excused from company duty except when carrying the colors. The regimental color is carried by a sergeant temporarily detailed.

CAPTAIN OR COMPANY COMMANDER.

The captain will cause the men of his company to be divided into squads, each to be under the charge of a non-commissioned officer, who should always carry with him a list of his men and their addresses, that in case of need the men may readily be warned. A list showing the address of each man, and indicating the non-commissioned officer in whose squad he is, will be posted in the company armory, and a copy should be kept by each officer.

The captain will require his lieutenants and non-commissioned officers to assist him in the performance of all company duties, and he may assign to each certain branches for their special care.

Upon the captain devolves the important duty of appointing the non-commissioned officers of the company subject to the approval of the colonel. They should not only possess the requisite knowledge of the duties to be expected from them, but should be men whose character and influence will command respect and obedience from their inferiors. The captain may establish competitive examinations to aid him in selecting his non-commissioned officers.

Captains should be with their companies; therefore, although subject to temporary details, as for courts-martial, military boards, and the like, they should not, except for urgent reasons, be detailed upon any duty which may separate them for any considerable time from their companies.

In the absence of the captain, the command of the company will devolve upon the subaltern officer next in rank serving with it, unless otherwise specially directed.

The government of a company includes instruction in Drill Regulations and discipline, the preservation of order and subordination, and the cultivation of a military spirit and pride in the profession among the men, and the proper

use and care of clothing, arms, equipments, and other State property.

The captain instructs the first sergeant as to preparing all company books and papers, and will see that his lieutenants are thoroughly conversant with the same.

The captain may detail a soldier to assist in the clerical labor of the company. In all cases, however, the records must be under the direct supervision of the captain.

The company commander should sustain his subordinates, and should especially avoid reproving an officer or non-commissioned officer in the presence of the men.

At encampments, and on other similar occasions, the company commander must see that prompt attention is paid to roll-calls; the lieutenants reporting to him in person, and the first sergeant reporting the attendance of the enlisted men. Punctual and universal attention cannot be expected from the men if the officers are tardy or absent.

The captain must not permit any man to perform duty under law or orders, or to draw pay, who is not regularly enlisted.

When served with an order from lawful authority to call out his company, or a portion thereof, the company commander must forthwith order it to parade at the time and place appointed.

No company parades except in obedience to orders of the Commander-in-chief, or other competent legal authority, on a day appointed for the election of Governor, Lieutenant-Governor, electors of President and Vice-President of the United States, or senators and representatives to Congress or to the General Assembly.

A company commander must not allow any waste of public property, and will permit it to be used by members of his command for military purposes only.

When a company commander orders his company out for inspection or parade under orders of the Commander-in-chief, he must see that due notice is given to each officer

and soldier at least three days, and for camp duty at least fifteen days, previous to the time of the meeting, by depositing the notice in the mail, properly addressed to the person to be notified, or leaving the same at his usual place of abode, or reading the order in his hearing.

Company commanders should give the utmost attention to the cleanliness of their men as to their persons, clothing, arms, accouterments, and equipments, as also to their quarters, tents, and armories.

"Among the requirements in the officer's make-up are dignity, strength of character, careful attention to the needs of the soldier, and absolute justice, for there is no man so utterly helpless and forlorn as the soldier commanded by an incompetent officer. The enlisted man feels this incompetence, and in his thoughts doubts and condemns his commander, and mentally, if not openly, questions every order and duty. The officer may not at once discover the cause of this attitude, but he will sooner or later be humiliated by failure.

"There is no position in an army that will give as much satisfaction in return for an honest, capable, and conscientious discharge of his duty as that of a captain or commanding officer of a company. There is a reward in having done his full duty to his company that no disappointment of distinction, no failure, can deprive him of; his seniors may overlook him in giving credits, unfortunate circumstances may defeat his fondest hopes, and the crown of laurel may never rest upon his brow, but the reward that follows upon a faithful discharge of his duty to his company he cannot be deprived of by any disaster, neglect, or injustice. He receives it when he looks upon his little command and sees the harmony, comfort, and discipline that prevail; he feels it when he comes to part with his men in the due course of promotion, or as they individually take their discharge after a faithful service; he remembers it when, in after years, no matter if rank and honors have in the meantime fallen upon him, he meets an old soldier who, with respect and affection, still calls him his captain. He is a small sovereign, powerful and great within his little domain, but no imbecile monarch ever suffered more from intrigues, factions, and encroachments than an incapable company commander. No tyrant king must contend more with rebellions, insurrections, and defections than an arbitrary and unjust captain, and no wise and benificent ruler ever derived more heart-felt homage, more faithful service, or more patriotic devotion than a just, competent, and faithful commander receives from his company. They will love him truly, they will obey him faithfully, and whilst there is life they will stand by him in the hour of battle.

"The command of a company divides itself into two kinds of duty, requiring very different capacity—viz., *government* and *administration*. The former requires force of character, judgment, and discretion, and has often been well performed without much capacity for the latter. Administration requires a certain amount of knowledge absolutely indispensable to a discharge of a duty.

"GOVERNMENT.—Under this head may be included instructions in Drill Regulations and discipline, the preservation of order and subordination, and the cultivation of a military spirit and pride in the profession among men. It involves the appointing and reduction of non-commissioned officers, and the subject of rewards and punishments.

"ADMINISTRATION.—Providing the clothing and subsistence of soldiers, and attending to the transportation of the men and their supplies, belong under this head. They involve the keeping of the records of the company and the accounts of the men, the drawing and distributing of supplies, and the care and accountability of public or company property. The efficient administration of the affairs of a company greatly facilitates the discipline and government of the company."—*Wilhelm.*

LIEUTENANTS.

It is the duty of the lieutenants to assist the company commander in all his duties, and to prepare themselves in every way to assume command, should occasion require. They may also have charge, under the direction of the captain, of certain departments of company administration.

Lieutenants report to the captain at all roll-calls, unless they are detailed on other duty. In the cavalry and light artillery they must attend stable-call.

Lieutenants should be thoroughly familiar with the schools of the soldier, company, and battalion, and also with the duties of all non-commissioned officers.

The right of a lieutenant for ordinary duty and command is restricted to his own company. He may be detailed by the commanding officer of the regiment to command another company, but cannot claim such command as a right on the ground of seniority.

In case of the temporary absence of the captain of a company, his duties are performed by its senior lieutenant, who is not, however, to make any marked changes in the

manner of governing, but shall rather aim to carry out the plans of his captain.

NON-COMMISSIONED OFFICERS.

Non-commissioned officers of companies are appointed by the permanent company commander, approved by the regimental commander.

Non-commissioned officers shall not be reduced, except by sentence of court-martial, or by an order approved by the permanent commander of the regiment.

A warrant is issued to each non-commissioned officer, signed by the permanent company commander, approved by the regimental commander, and countersigned by the adjutant.

Besides the particular duties required of non-commissioned officers when in the ranks, according to the system of tactical instructions, it is their duty at all times to observe the conduct of the privates, to instruct them in their duties, and to report immediately to the proper authority every breach of the regulations or of orders.

A non-commissioned officer, having been duly appointed, cannot, at his pleasure, return to the ranks. His application, therefore, must be sent through the proper channels, for the action of the regimental commander.

Non-commissioned officers are entitled to respect and implicit obedience from the men; they must be just and impartial on all occasions.

Non-commissioned officers should be examples of neatness, cleanliness, and soldierly conduct. They should be the first to take their places at roll-calls, and should see that the men take their places promptly, and preserve silence.

FIRST SERGEANT.

The captain, without reference to higher authority, will select the first sergeant from the sergeants of his company, and may return him to the grade of sergeant.

The duties of a first sergeant are peculiar to his position, and require capacity and knowledge superior to those of other sergeants; he has immediate supervision of the company, receives and transmits orders from his company commander, and sees that they are executed; he keeps the rosters and makes all the details; he superintends the company clerk, instructs and assists him in making out all the required papers; he forms the company and calls the roll; he has general supervision of the company property; sees that every non-commissioned officer performs his duties; holds the chiefs of squads responsible for the condition of their squads, and superintends the police of the company quarters.

He should be familiar with the duties of sergeants and corporals; he is not liable for guard duty, fatigue, or detached service, unless the entire company be detailed for the same.

He is the medium of communication between the commanding officer of the company and the enlisted men thereof.

At first sergeant's call he repairs to regimental or post headquarters to receive orders or instructions, which he reports to the company commander without delay.

In camp or other continuous duty, he makes out and signs the company morning report and submits it to the commanding officer of the company for his signature, after which it is transmitted to the battalion adjutant, usually before guard-mounting.

The sick report must always be made before the company report, in order that the latter may be accurate as to the number of men for duty.

He parades and inspects all details from his company, sees that they are properly equipped for the duty which they are to perform, and then turns them over to a non-commissioned officer to be marched to their posts, or marches them there himself.

Orders received by the first sergeant from the commanding or other officer should be communicated to the company commander at once, before being obeyed, if there is time; in any case they should be reported to him as early as possible.

TROOP QUARTERMASTER AND COMMISSARY SERGEANTS.

The troop quartermaster and commissary sergeants perform for their troop the duties performed by the regimental quartermaster and commissary sergeants respectively for a regiment.

BATTERY QUARTERMASTER SERGEANT.

The battery quartermaster sergeant performs for his battery the duties performed by regimental quartermaster and commissary sergeants for a regiment.

VETERINARY SERGEANT.

The veterinary sergeant of a battery or troop should be a graduate of an established veterinary school or college. He is required to instruct the enlisted men in the proper and humane care of the horse, with a view to the prevention and treatment of diseases. His suggestions for the care and treatment of horses must be enforced by the authority of the commanding officer.

SERGEANTS.

Sergeants have a general supervision of the men, and, if in charge of details, are responsible that public property in their hands is not misused or lost; they may also have charge of the preliminary instruction of recruits.

CORPORALS.

The duties of corporals are simple, and a capacity for control is the principal requisite. They take charge of the

smaller details for guard, fatigue, and police. They are frequently called upon to assume the responsibilities of a sergeant, and should therefore be familiar with his duties.

CONSTITUTIONAL PROVISIONS AND LAWS OF THE UNITED STATES RELATING TO THE MILITIA.

Constitution of the United States.

ARTICLE I.

SECTION 8. The Congress shall have power * * * to provide for calling forth the Militia to execute the laws of the Union, suppress insurrections, and repel invasions; to provide for organizing, arming, and disciplining the Militia, and for governing such part of them as may be employed in the service of the United States, reserving to the States, respectively, the appointment of the officers and the authority of training the Militia according to the discipline prescribed by Congress; to make all laws which shall be necessary and proper for carrying into execution the foregoing powers. * * *

SEC. 9. No State shall, without the consent of Congress, * * keep troops, or ships of war, in time of peace, * * * or engage in war unless actually invaded, or in such imminent danger as will not admit of delay.

ARTICLE II.

SEC. 2. The President shall be Commander-in-chief of the Army and Navy of the United States and of the Militia of the several States when called into the actual service of the United States.

ARTICLE IV.

SEC. 4. The United States shall guarantee to every State in this Union a republican form of government, and shall protect each of them against invasion; and on application of the Legislature, or of the executive (when

the Legislature cannot be convened), against domestic violence.

AMENDMENT II.

A well-regulated militia being necessary to the security of a free State, the right of the people to keep and bear arms shall not be infringed.

AMENDMENT III.

No soldier shall, in time of peace, be quartered in any house, without the consent of the owner, nor in time of war, but in a manner to be prescribed by law.

Acts of Congress Respecting the Militia.

[Title 16, Revised Statutes of the United States.]

SECTION 1625. Every able-bodied male citizen of the respective States, resident therein, who is of the age of eighteen years, and under the age of forty-five years, shall be enrolled in the Militia.

SEC. 1634. There shall be appointed in each State an adjutant-general, whose duty it shall be to distribute all orders from the Commander-in-chief of the State to the several corps; to attend all musters when the Commander-in-chief of the State reviews the Militia, or any part thereof; to obey all orders from him relative to carrying into execution and perfecting the system of military discipline established by law; to furnish blank forms of returns that may be required, and to explain the principles on which they should be made; to receive from the several officers of the different corps throughout the State returns of the Militia under their command; and to make proper abstracts from such returns, and lay the same annually before the Commander-in-chief of the State.

SEC. 1635. The several officers of the divisions, brigades, regiments, and battalions shall report in their returns of the corps under their command, the actual condi-

tion of their arms, accouterments, and ammunition, their delinquencies, and every other particular relating to the general advancement of good order and discipline, and shall make the same in the usual manner.

SEC. 1636 (Extract). It shall be the duty of the Adjutant-General in each State to make return of the Militia of the State, with their arms, accouterments, and ammunition, agreeably to the provisions of law, to the President of the United States, annually, on or before the first Monday in January; and it shall be the duty of the Secretary of War, from time to time, to give such directions to the Adjutants-General of the Militia as may, in his opinion, be necessary to produce a uniformity in such returns.

SEC. 1637. The system of discipline and field exercise which is ordered to be observed in the different corps of infantry, artillery, and riflemen of the regular Army shall also be observed in such corps, respectively, of the Militia.

SEC. 1642. Whenever the United States are invaded, or are in imminent danger of invasion from any foreign nation or Indian tribe, or of rebellion against the authority of the Government of the United States, it shall be lawful for the President to call forth such number of the Militia of the State or States most convenient to the place of danger or scene of action as he may deem necessary to repel such invasion or to suppress such rebellion, and to issue his orders for that purpose to such officers of the Militia as he may think proper.

SEC. 1643. When the Militia of more than one State is called into the actual service of the United States by the President, he shall apportion them among such States according to representative population.

SEC. 1644. The Militia, when called into the actual service of the United States for the suppression of rebellion against and resistance to the laws of the United States, shall be subject to the same rules and Articles of War as the regular troops of the United States.

SEC. 1648. Whenever the President calls forth the Militia of the States, to be employed in the service of the United States, he may specify in his call the period for which such service will be required, not exceeding nine months, and the Militia so called shall be mustered in and continue to serve during the term so specified, unless sooner discharged by command of the President.

SEC. 1619. Every officer, non-commissioned officer, or private of the Militia, who fails to obey the orders of the President when he calls out the Militia into the actual service of the United States, shall forfeit of his pay a sum not exceeding one year's pay, and not less than one month's pay, to be determined and adjudged by a court-martial; and such officer shall be liable to be cashiered by a sentence of court-martial, and be incapacitated from holding a commission in the Militia for a term not exceeding twelve months; and such non-commissioned officer and private shall be liable to imprisonment, by a like sentence, on failure to pay the fines adjudged against him, for one calendar month for every twenty-five dollars of such fine.

SEC. 1650. The Militia, when called into the actual service of the United States, shall, during their time of service, be entitled to the same pay, rations, clothing, and camp equipage as may be provided by law for the Army of the United States.

SEC. 1661. The annual sum of four hundred thousand dollars is appropriated, to be paid out of any money in the Treasury not otherwise appropriated, for the purpose of providing arms and equipments for the whole body of the Militia, either by purchase or manufacture, by and on account of the United States.

"It belongs exclusively to the President to judge when the exigency arises in which he has authority under the Constitution to call forth the Militia, and his decision is conclusive upon all other persons."—*Decision of United States Supreme Court in Martin v. Mott*, 12 *Wheaton*, 19; 1 *Kent*, 264.

CHAPTER VI.

ORDERS AND CORRESPONDENCE.—ROSTERS.

ORDERS.

The orders of armies, divisions, brigades, and regiments are denominated orders of such army, etc., and all orders are either general or special. Orders are numbered, general or special, in separate series, each beginning with the year.

General orders are such as it is important that the whole command should know; they announce the laws and regulations for the forces, the results of trial by general courts-martial, provide for the organization, discipline, and instruction of the troops, and prescribe the hours for service and roll-calls and the returns to be made.

Special orders are such as concern individuals and relate to matters that need not be published to the whole command of the officer who issues them. Besides the individual to whom they are sent, they are communicated to others whom they will interest; such orders relate to the march of some particular corps, the detaching of individuals, granting of requests, etc.

A general order and an important special order must be read and approved, or have been specially directed by the officer whose order it is before it is issued by the staff officer. Less important orders, relating to the details of the service, may be issued by the proper staff officer, in conformity to such previous instructions governing the case as may have been given by his commander. The wording of an order should be as concise as possible.

When it is not convenient to write out several copies of an order, staff officers, in communicating it to regiments, may send it by an orderly to the several commanding

officers concerned, by whom it should be copied at once, signed, and returned to the orderly to take it to the next commanding officer, and so on. When all have signed it, it is brought back to the staff officer who wrote it, who can see by the signatures that all have seen and copied it. All orders must be signed by the staff officer who issues them.

The head of an order indicates the source from which it emanates, as well as the place and date, and the foot of the order cites the name of the commander who gives the order, according to forms prescribed.

A company order should omit the word "headquarters," and only give the letter of the company and number of the regiment to which it belongs, and be signed by the commanding officer of the company.

Orders are transmitted through all intermediate commanders in order of rank, and communications from superior to inferior officers should be answered through the same channel as received.

Orders for any body of troops should be addressed to the commander, and should be opened and executed by the commander present, and published and distributed by him when necessary.

Special orders and instructions may be sent direct to the officer under whose immediate authority they are to be executed, but copies must, at the same time, be sent to intermediate commanders.

Orders in cases of emergency may be transmitted by telegraph; orders so transmitted are deemed to have been legally transmitted. When orders are transmitted by telegraph, a copy thereof must be immediately forwarded by mail.

Copies of important orders, issued by the officers commanding brigades, regiments, battalions, and companies, should be forwarded as soon as practicable to the next superior commander.

All orders should be filed by the officer receiving the same, and should be kept with the headquarters of the brigade and regiment and with each company; the orders should be kept with the records, and should be turned over by the commander, when relieved, in the same manner as other public property. Orders forwarded and received are not indorsed nor entered and briefed like letters received.

As a general rule, the last order received must be obeyed. In case the last order is in violation of a previous one given by a common superior, the junior should make known the existence of such order. If the last is reiterated, it must be obeyed.

CORRESPONDENCE.

Official letters are to contain full information of all particulars upon the subject to which they relate, and generally refer to one subject only; they are written on letter paper, about 10 inches long and 8 inches wide, upon one side only, with a convenient margin, to be always on the left side of each page.

Whenever more than three pages of a full sheet are required for the communication, an additional half-sheet, or more if necessary, is added, so that the outer page may be left entirely blank for briefing and endorsement.

Postoffice address of an officer should be given in his official letters. The term *headquarters* will be used as a heading to communications, or orders, only by commanding officers of divisions, brigades, regiments, battalions, and posts. All communications on public service are to be marked on the envelope: *Official business.*

All letters commence, after the address, with the word *Sir*—not General, Colonel, Captain, etc.

Official correspondence between a commander and his junior is usually conducted by the adjutant at regimental and battalion headquarters, the Assistant Adjutant-General at brigade headquarters, the Adjutant-

General at general headquarters; and written documents are addressed accordingly in the ascending line of correspondence.

The same rule governs verbal applications; thus a lieutenant obtains the sanction of his captain before making an application to a higher commander.

Written communications from a commander to those under his command may be made by his staff officer, or the commander himself.

When staff officers communicate the orders and instructions of their commanders, they premise: "*I am directed* ——."

Every staff officer must sign in person the communications and orders issued by him. His assistants cannot sign them for him, or by his order; if the assistant sign them, it must be with his own name, by the order of the common commander of the two.

In signing an official communication, the rank and corps follow the signature; when writing another officer's name, the rank precedes the name.

All official communications must be signed or authenticated with the pen plainly and legibly, and not by stamps or *fac-similes*. Signatures must be followed by the actual grade and office of the writer.

Papers which admit of or require endorsement, and all returns prescribed by regulations, should be forwarded, without letters of transmittal; on retained copies, the date of forwarding the originals must be noted.

Superior officers and other intermediate authorities are responsible for the correctness of what is set forth in documents submitted by them. It is their duty to endeavor to adjust all matters that come within the scope of their authority; and in transmitting applications or correspondence to headquarters, they should state their concurrence or otherwise, adding such additional observations, based on local knowledge, as may be necessary to

enable the authorities to come to a final decision on the question, without further reference or correspondence.

All official correspondence between the heads of the different departments of the staff of any command and its commander must pass through the Adjutant-General or adjutant of the command, as the case may be.

All communications from the heads of staff departments to officers of any command must pass through the Adjutant-General and through intermediate commanders.

A strict observance of the prescribed channel of communication is enjoined on the part of all officers, whether in actual performance of duty or not, except under special circumstances, where the direct reference is necessary. Any officer who on his own responsibility transmits documents otherwise than through the proper channel must fully explain the causes which induced him to do so, and at the same time forward copies for the information of the authority through whom they would have passed in regular course.

Letter paper is folded in three, foolscap in four, equal folds, parallel with the writing; the left hand of the sheet is the top when folded; the left-hand fold of the outer page is the first fold.

The first fold is exclusively used for a brief of the communication made by the writer, the official marks, and noting enclosures. This brief should exhibit the place where the letter was written, the date of the communication, the name and official designation of the writer, or the title of the department, organization, court, etc., whence the communication proceeds, and a synopsis of the contents or subject of the letter; everything of importance should appear in the brief, but prolixity in the description of places, the title and offices of persons, and in the summary of contents should be avoided.

The date of the receipt of a communication at each headquarters should be noted as near the bottom of the briefing fold as the previous dates allow.

Endorsements commence at the top of the second fold and follow each other in regular order of date; where there are more than one, they are numbered successively. Additional space for endorsements is provided by attaching (with paste) slips of paper on the under side of the last fold—right-hand edge of the original paper—each slip to correspond in length and width, when pasted on, with the width and length of the original fold, and to turn back upon the last fold like the leaves of a book.

Endorsements going to subordinate officers are signed by the respective staff officers, by order of their commanders; all other endorsements must be signed by the commanders themselves.

An assistant adjutant-general, or adjutant, if authorized by his commanding officer, may, during the temporary absence of the latter, forward matters of routine to higher authorities by endorsements signed as follows:

"A——— B———,
"In the temporary absence of the Commanding Officer."

Orders, letters, or other communications intended for subordinate headquarters, which pass through an office simply as the proper channel, can be transmitted without endorsement, the date of receipt at each office only being noted on them.

A lengthy endorsement may be sent in the form of a letter, and attached to the communication as an enclosure; in this case the endorsement simply refers to the communication.

All enclosures are numbered, and bear the proper office marks. Enclosures of the original communication are noted on the first fold, just below the brief. If others are added, when the endorsement is made, the number of them is noted at the foot of their appropriate endorsement and also on the first fold of the original communication; and to the latter notation is added the number of

the endorsement to which they belong, thus: "One Enclosure—First (or ——) Endorsement."

Enclosures to endorsements are numbered in the same series as those to the original paper, and the number of the endorsement to which they belong is added below.

If few in number and not bulky, enclosures may be kept inside the original paper; if otherwise, they should be folded together in a wrapper, marked "Enclosures," as an accompanying package.

ROSTER, DETACHMENTS, AND DAILY SERVICE.

1. A roster is a list of officers or men for duty, with a record of the duty performed by each. Generally, details for duty are so made that the one longest off is the first for detail. Details so made are said to be made by roster.

2. All details for service in garrison and in the field, except the authorized special and extra duty details, will be by roster; but officers or enlisted men, when detailed, must serve, whether a roster be kept or not. Having performed the service, they may appeal to superior authority if they deem themselves aggrieved.

3. The duties performed by roster are of two classes. The first comprises: (1) outposts; (2) interior guards, including stable guards; (3) detachments to protect laborers on military works; (4) armed working parties on such works. The second comprises all other duties and fatigue, in or out of the garrison or camp.

4. The rosters are distinct for each class. Officers are named on them in order of rank. Details are made in succession, according to roster, beginning at the head.

5. Lieutenant-colonels and majors are on one roster, and may be detailed when the importance of the duty requires it. In the field their roster is kept at division and brigade headquarters. Captains form one roster, and are exempt from ordinary fatigue duty. A captain commanding a battalion is exempt from detail, and duty fall-

ing to him passes. Lieutenants form one roster, and first and second lieutenants are entered alternately. Sergeants, corporals, musicians, and privates form distinct rosters.

6. Officers, non-commissioned officers, and privates take duties of the first class (in the order stated in paragraph 3); viz., the first for detail takes the outposts, the next the interior guards, and so on. In those of the second class the senior officer takes the largest party. The party first for detail takes the service out of camp.

7. In making details by roster, an officer or enlisted man is each day charged with the number of days that he has remained present and available since the beginning of his last tour. Departures from this rule may be authorized by the the commanding officer whenever a strict application would allow improper advantage or work hardship.

8. When an officer has been detailed and is not present or available at the hour of marching, the next after him takes the duty. When an outpost has passed the chain of sentinels, or an interior guard has reached its post, the officer whose tour it was cannot take it unless so ordered by the commanding officer, but succeeds to the tour of the officer who has taken his.

9. Duties of the first class are credited on the roster when the guards or detachments have passed the chain of sentinels or an interior guard has reached its post; other duties, when the parties have entered upon their performance.

10. An officer or enlisted man on duty of the first class, or who is next for detail for such duty, is available, when relieved, for duty of the second class that has fallen to him during that time. Except in emergencies, no duty will be required of the old officer of the day or the old guard until four hours after they have been relieved.

11. Soldiers march armed, and, if necessary, fully equipped, on all duties of the first class.

12. In the cavalry dismounted men and those whose horses are not fit for service are preferred for all dismounted details. Mounted men are never employed on such service if the number of dismounted men is sufficient.

13. In the field every enlisted man of the cavalry detailed for dismounted service will, before he marches, take to the first sergeant of his troop his horse equipments and saddle, ready packed. In case of alarm, the first sergeant sees that the horses of these men are equipped and led to the rendezvous.

14. Field and siege batteries serving with other troops will perform their own guard, police, and fatigue duty, and officers and men will be exempt from detail for other duty of like character, except when, in the judgment of the post commander, the necessities of the service will not permit such exemption, in which case he will immediately report his action and the circumstances to the department commander.

15. Detachments of the Signal Corps shall be exempt from detail for any other duty, except when, in the judgment of the commanding officer, the importance of the duty will not permit exemption, in which case he will immediately report the circumstances and his action to his superior commander.

CHAPTER VII.

FLAGS, HONORS, CIVIL AUTHORITY, ARRESTS.

FLAGS.

The flag of the United States has thirteen horizontal stripes, seven red and six white, the red and white stripes alternating, and the union of the flag consists of white stars in a blue field placed in the upper quarter next the staff and extending to the lower edge of the fourth red stripe from the top. The number of stars is the same as the number of States in the Union. On the admission of a State into the Union one star is added to the union of the flag, and such addition takes effect on the fourth day of July next succeeding such admission.

The field or the union of the national flag in use in the Army has, since July 4, 1896, consisted of forty-five stars, in six rows, the first, third, and fifth to have eight stars, and the second, fourth, and sixth rows seven stars each, in a blue field, arranged as follows:



The garrison flag is the national flag, of bunting, 36 feet fly and 20 feet hoist, and will be used only on gala days and great occasions.

The post flag is the national flag, of bunting, 20 feet fly and 10 feet hoist, and will be used at all posts, armories, or camps occupied by troops, but in pleasant weather only.

The storm flag is the national flag, of bunting, 8 feet fly and 4 feet 2 inches hoist, and will be used to replace the post flag in stormy or windy weather.

For field hospitals, a flag of white bunting, 6 by 4 feet, with a red cross 3 feet high and 3 feet wide, of red bunting, in center; arms of cross to be 12 inches wide.

For ambulance and guidons to mark the way to field hospitals, white bunting, 16 by 28 inches, with a red cross of bunting 12 inches high and 12 inches wide, in the center; arms of cross to be 4 inches wide.



HONORS PAID BY TROOPS.

IN GENERAL.

Meetings of organizations of the National Guard held in armories after sunset, for the purpose of paying honors, are considered as taking place between reveille and retreat.

The following officers are received with standards and colors drooping, officers and troops saluting, and the band and field music playing, as below:

The President, the band playing "The President's March"; the general, the band playing "The General's

March"; the lieutenant-general or the major-general commanding, trumpets sounding three flourishes or drums beating three ruffles; a brigadier-general, one flourish or one ruffle.

The Vice-President, members of the Cabinet, the Chief Justice, the President of the Senate, the Speaker of the House of Representatives, and Governors, within their respective States and Territories, receive the same honors as are paid to a general commander-in-chief.

American or foreign envoys, or ministers, are received with the honors due to a lieutenant-general.

Officers of the Navy are received with honors due their assimilated rank.

Officers of Marines and of the Volunteers and Militia, when in service of the United States, receive the honors due like grades in the regular service.

Officers of a foreign service are received with the honors due to their rank.

The national or regimental colors passing a guard or other armed body are saluted, the trumpets sounding and the drums beating a march. Officers or enlisted men passing the colors are given the prescribed salute, whether with or without arms.

No honors are paid by troops when on the march or in trenches, and no salute is rendered when marching in double time, or at a trot or gallop.

Commanding officers of posts or camps are saluted by all officers in command of troops, except that drills are not interrupted to pay compliments.

SALUTES WITH CANNON.

Salutes are fired only between sunrise and sunset, and, as a rule, never on Sunday. The national colors should always be displayed at the time of firing salutes.

The national salute is determined by the number of States composing the Union, at the rate of one gun for

each State. It is fired at noon on July 4th at every post provided with artillery.

The President, both on his arrival and departure from a military post, or when passing its vicinity, receives a salute of twenty-one guns. No other personal salute is fired in his presence.

The general receives a salute of seventeen guns; the lieutenant-general or major-general commanding, of fifteen guns; a major-general, thirteen guns; and a brigadier-general, eleven guns.

An officer assigned to duty according to his brevet rank is entitled to the salute prescribed for the grade to which he is assigned.

As a rule, a personal salute is fired when the personage entitled to it enters the post.

A general officer is saluted but once a year at each post, when notice of his intention to visit it has been given. When several persons, each of whom is entitled to a salute, arrive together at a post, the highest in rank or position is alone saluted; if they arrive successively, each is saluted in turn.

Officers of the Navy are saluted according to their assimilated rank; officers of Marines and of the Volunteer forces or Militia in the service of the United States and officers of foreign services are saluted according to rank.

The Vice-President and President of the Senate receive a salute of nineteen guns; members of the Cabinet, the Chief Justice, the Speaker of the House of Representatives, a committee of Congress officially visiting a military post, and Governors within their respective States or Territories, receive seventeen guns.

American or foreign envoys or ministers receive fifteen guns; ministers resident, accredited to the United States, thirteen guns; charges d'affaires, eleven guns; consuls-general, accredited to the United States, nine guns.

The sovereign or chief magistrate of a foreign country receives the salute prescribed for the President; members of a royal family receive the salute due to their sovereign.

The salute of a national flag is twenty-one guns.

When a civil functionary entitled to a salute arrives at a military post, the commanding officer meets or calls upon him as soon as practicable and tenders him a review, provided the garrison of the place consists of not less than four companies. When an officer entitled to a salute visits a post within his own command, the troops are paraded, and he will receive the honor of a review, unless he directs otherwise. When a salute is to be given an officer junior to another present at a post, the senior is notified to that effect by the commanding officer.

Under no circumstances will the flag of a military post be dipped by way of salute or compliment.

ESCORTS OF HONOR.

Escorts of honor may be composed of cavalry, artillery, or infantry, or of all arms, according to the circumstances. They are detailed for the purpose of receiving and escorting personages of high rank, civil or military. The troops for this purpose may be selected for their soldierly appearance and superior discipline, and are formed and maneuvered as prescribed in the authorized Drill Regulations.

FUNERAL HONORS.

On the receipt of official intelligence of the death of the President of the United States at any post or camp, the commanding officer, on the following day, causes a gun to be fired every half-hour, beginning at sunrise and ending at sunset. When posts are contiguous, the firing takes place only at the post commanded by the senior officer.

On the day of interment of a Secretary of War or general commander-in-chief a gun is fired every half-hour until the funeral procession moves, beginning at sunrise.

The orders from headquarters announcing the death of a general officer or other person entitled to a salute of cannon specifies the number of guns to be fired at half-hour intervals, commencing at meridian on the day after the receipt of the order. The number of guns fired is that to which the deceased was entitled, and the post at which they shall be fired is designated in the order.

When the funeral of an officer entitled, when living, to a salute takes place at or near a military post, minute-guns are fired while the remains are being borne to the place of interment; but the number of guns fired does not exceed that to which the officer was entitled, as a salute, when living. After the remains are deposited in the grave, a salute, corresponding to the rank of the deceased, is fired, in addition to three salvos of artillery or three volleys of musketry.

During the funeral of a civil functionary entitled, when living, to a salute, the flag is displayed at half-staff, and minute-guns are fired.

On the death of an officer at a military post, the flag is displayed at half-staff and kept so between the hours of reveille and retreat until the last salvo or volley is fired over the grave; or, if the remains are not interred at the post, until they are removed therefrom.

During the funeral of an enlisted man the flag is displayed at half-staff; it is hoisted to the top after the final volley or gun is fired.

All military posts in sight, or within six miles of each other, display their flags at half-staff upon the occasion of either doing so.

When the flag is displayed at half-staff, it is lowered to that position from the top of the staff; it is afterwards hoisted to the top of the staff before it is finally lowered.

The funeral escort of the Secretary of War or general-in-chief consists of a regiment of infantry, a battalion of cavalry, and two batteries of artillery; of the lieutenant-general or major-general commanding, a regiment of in-

fantry, a battalion of cavalry, and a battery of artillery; of a major-general, a regiment of infantry, two companies of cavalry, and a battery of artillery; of a brigadier-general, a regiment of infantry, a company of cavalry, and a platoon of artillery; of a colonel, a regiment; of a lieutenant-colonel, six companies; a major, four companies; a captain, one company; a subaltern, half a company.

The funeral escort of an officer is commanded by an officer of the same grade as the deceased; if none such be present, by one of the next inferior grade. The form of escorting a corpse to the grave is prescribed in the Drill Regulations of the several arms of service.

The funeral escort of a non-commissioned staff officer consists of sixteen rank and file, commanded by a sergant; of a sergeant, of fourteen rank and file, commanded by a sergeant; of a corporal, of twelve rank and file, commanded by a corporal; and of a private, eight rank and file, commanded by a corporal.

The funeral escorts of officers of field artillery are as follows: colonel, twelve pieces; lieutenant-colonel and a major, eight pieces; captain, four pieces; and a lieutenant, two pieces. Caissons need not accompany the pieces.

The pall-bearers, six in number, are selected from the grade of the deceased, or from the grade next above or below it.

At the funeral of an officer, such officers of the post or organization in the field as can be spared from other duties join in the procession, in uniform and with side-arms. The funeral of a non-commissioned officer or private is attended by the non-commissioned officers and privates of the regiment or company, according to the rank of the deceased, with side-arms only. Officers or enlisted men joining the funeral procession follow the mourners in order of rank.

Funeral honors are paid to deceased officers without military command according to their grades.

CIVIL AUTHORITY.

Respect and obedience to the civil authorities of the land is the duty of all citizens, and more particularly of those who are armed in the public service. An individual officer or soldier who resists the civil authority subjects himself to the penalties inflicted by civil law on a civilian in like cases.

Combination or concert between two or more officers or soldiers in such resistance is not only punishable as above, but renders each individual engaged liable to military punishment.

It is the duty of all commanding officers to restrain those under their control from violations of the civil law, and aid in bringing the guilty to justice.

A civil officer charged with the execution of a civil process should, on making known his character and business to the satisfaction of the commanding officer, be permitted to execute his office.

The National Guardsman must remember that it is upon him, when the civil power has failed, the State relies for the vindication of its laws and institutions, imperiled from whatever cause; that in becoming the soldier he has lost none of the characteristics or duties of the citizen, but has assumed simply such further obligations as imperatively demand of him conduct which shall inspire the confidence and respect of the people.

A civil officer calling upon the military authority for aid communicates directly with the superior officer in command of the military forces in the city or town when its services are required. Subordinate military officers look to their military superiors for their orders; the civil officer is not authorized to interfere in any way with the information or details of the force or its conduct, the military officer being held responsible for the success of the operation to be undertaken, and it is for him alone to judge in what manner the troops shall effect the object

which the civil officer has indicated, and to direct the force in execution of the service in which it is engaged.

Commanding officers, when called upon to aid the civil authority, should require the request and instructions of the civil officer to be in writing.

If, after being called into service, no instructions be given to the military commander by the civil officer, or if there be a conflict of jurisdiction between public officers authorized to call to their aid the military force, and who shall make such call; or if contradictory, inconsistent, or unlawful directions shall have been given by such officer or officers, the military commander should, if the occasion shall require the use of military force, himself so direct the troops as to secure the public peace and the due observance of the law, agreeably to the call made upon him by by the civil authority.

Every officer who may be required to move troops through a city or town under orders to preserve the peace should provide himself, if possible, with an accurate map of the place, or a reliable guide, or both, unless he be personally well acquainted with the locality.

Officers, while acting in aid of the civil authorities, should enforce the most exact subordination and discipline; they should impress upon their commands the necessity of coolness and self-possession and enjoin absolutely the order that no man shall fire without orders from his proper military superior. Officers in command of troops in the circumstances contemplated should be cautious not to weaken their main force too much by detachments, and always to have on hand a sufficient body to act with energy and effect when their services shall be required.

Commanding officers may cause the troops to arrest all rioters and other persons found in open resistance to the civil authorities, and are empowered and required to overcome such resistance and secure and keep the peace, by the use, if necessary, of their arms and all the power which they possess, but they are not authorized to punish

any person for an offense, however amenable he may be to the punishment, and they should always endeavor, by firm and judicious conduct and the moral force of their presence, to establish the public order, if possible, without a resort to arms. To have accomplished this result will be the best evidence of their skill and the excellence of their measures.

ARREST AND CONFINEMENT.

An arrest is the suspension of the military functions of a person in military service by an officer having authority to order such arrest.

None but commanding officers have power to place officers under arrest, except for offenses expressly designated in the twenty-fourth Article of War. (See Articles of War.)

In ordinary cases, an officer above the rank of captain is placed in arrest by sealed instructions to that effect addressed to him; if under the rank of major, he may be placed in arrest by a written order or verbal order.

The sword of an officer placed in arrest need not, under ordinary circumstances, be taken from his tent or quarters. The notification of the arrest will sufficiently deprive him of the use of it.

Officers are not to be put in arrest for light offenses. For these the censure of the commanding officer will, in most cases, answer the purpose of discipline.

It is not obligatory on the commander to place an officer in arrest on application to that effect from another officer. He should exercise a sound discretion on the subject. But, on application for redress of supposed grievances, it is the duty of the commander, in case he shall deem it proper to investigate, to give his reasons in writing for declining to act. These, if not satisfactory, the complaining party may, should he think fit, forward to the next common superior, together with a copy of his application for redress.

If an officer or soldier against whom charges have been preferred and approved, and upon whom a court-martial is ordered, has not been placed in arrest, the authority ordering the court-martial should, at the time of such ordering, cause the arrest to be made.

An officer in arrest may have his limits fixed by his commanding officer at the time of his arrest. Close confinement is not to be resorted to unless under circumstances of an aggravated character. Unless in close arrest, when he is restricted to his quarters, an officer may go to and from his mess-house, if within the limits of the post.

In ordinary cases, and where inconvenience to the service would result, a medical officer should not be put in arrest until the court-martial for his trial convenes.

Medical officers may be required to discharge their ordinary duties while under arrest.

Non-commissioned officers for ordinary offenses are placed in arrest; only in grave cases are they put in confinement.

Private soldiers and musicians are generally placed in confinement. unless their offenses are of such a light nature that immediate punishment, sanctioned by custom or law, and not requiring confinement or court-martial, is sufficient.

First sergeants are empowered to confine private soldiers in camp or upon active service. At the discretion of commanding officers they may be empowered to arrest or confine non-commissioned officers, but they only in the most aggravated cases. In general, only commissioned officers have authority to arrest or confine non-commissioned officers.

CHAPTER VIII.

PROCEDURE OF COURTS-MARTIAL IN THE NATIONAL GUARD.

The order appointing a court-martial will name its members in order of rank, and they will sit according to rank as announced. A decision of the appointing authority, as to the number that can be assembled without injury to the service, is conclusive.

The place of holding a court is designated by the authority appointing it. Courts will be assembled at places where trial or examination will be attended with the least expense. A member stationed at the place where it sits is liable to duty with his command during adjournment from day to day. Courts will, as far as practicable, hold their sessions so as to interfere least with ordinary routine duties, and, when necessary for the sake of immediate example, will be ordered to sit without regard to hours.

A president of the court will not be announced. The officer highest in rank present will act as president.

A court-martial has no power to punish its members, but for disorderly conduct a member is liable as for other offenses against military discipline. Improper words used by him should be taken in writing, and any disorderly conduct reported to the appointing authority.

When a court sits in closed session, the judge-advocate will withdraw; and when legal advice or assistance is required, it will be obtained in open court.

The judge-advocate will summon the necessary witnesses for the trial, but will not summon witnesses without the order of the court, unless satisfied that their testimony is material and necessary.

Judge-advocates of courts-martial will, whenever it is possible, send subpœnas through military channels.

An officer or enlisted man who receives the summons to attend as a witness before any military court, board, civil court, or other tribunal competent to issue subpœnas, which is sitting beyond the limits of the place where he is serving, will, before starting to obey the summons, forward it through the proper channel to the Adjutant-General, that necessary orders, or authority to obey a civil process,may be given. In urgent cases, or when the public interest would be liabe to suffer by delay, the commanding officer may authorize immediate departure, reporting his action and reasons th refor to the Adjutant-General.

The commanding officer of a post or camp where a general court-martial is convened will, at the request of any prisoner who is to be arraigned, detail as counsel for his defense a suitable officer, one not directly responsible for the discipline of an organization serving thereat, nor acting as a summary court. If there be no such officer available, the fact will be reported to the appointing authority for action. An officer so detailed should perform such duties as usually devolve upon counsel for defendant before civil courts in criminal cases. As such counsel, he should guard the interests of the prisoner by all honorable and legitimate means known to the law.

Commanding officers will, before forwarding charges, personally investigate them, and, by indorsement on the charges, will certify that they have made such investigation, and whether, in their opinion, the charges can be sustained.

Non-commissioned officers above the rank of corporal will not, if they object thereto, be brought to trial before regimental, garrison, or summary courts-martial, without the authority of the officer competent to order their trial by general court-martial; nor will sergeants of the non-commissioned staff or hospital stewards be reduced, but they may be dishonorably discharged whenever reduction is included in the limit of punishment.

Sentences imposing tours of guard duty are forbidden.

The time at which a dishonorable discharge is to take effect, as fixed by a sentence, cannot be postponed by the reviewing officer.

Every court-martial will keep a complete and accurate record of its proceedings, which will be authenticated in each case by the signatures of the president and judge-advocate, the latter affixing his signature to each day's proceedings.

The judge-advocate will transmit the proceedings, without delay, to the officer having authority to confirm the sentence, who will state, at the end of the proceedings in each case, his decision and orders.

The complete proceedings of a garrison or regimental court will be transmitted without delay, by the regimental commander, to general headquarters, whenever the sentence involves the discharge of the soldier.

When the record of a court exhibits error in preparation, or seemingly erroneous conclusions, the reviewing authority may reconvene the court for a reconsideration of its action, pointing out defects. Should the court concur in the views submitted, it will proceed by amendment to correct its errors, and may modify or completely change its findings. A reopening of the case, by calling or recalling witnesses, is illegal.

The employment of a stenographic reporter is authorized for general courts only, and in cases where the convening authority considers it necessary.

The order convening a court-martial should always read: "For the trial of such persons as may be brought before it," in order to enable all cases referred to it before the final adjournment of the court to be tried by it.

It is the duty of a member of a court, if unable to attend, to communicate the fact to the judge-advocate, with the reason or evidence of his inability to attend.

An officer has no right to demand a court-martial either on himself or others, the commander-in-chief being the judge of its necessity or propriety.

Courts-martial and courts of inquiry are composed of commissioned officers only.

All officers, except chaplains, are eligible to sit on courts-martial; medical officers, however, should be detailed for such duty only when unavoidable.

Every officer and enlisted man is subject to trial by a military court whenever he renders himself liable thereto by non-compliance with the law, the regulations, or orders.

Courts-martial have exclusive jurisdiction to try for acts constituting military offenses only, and also jurisdiction to try for acts which, besides constituting military offenses, are civil crimes. In the latter case the military ordinarily gives precedence to the civil court. A civil offense, therefore, may not only constitute an offense against the civil authority, but also against the military, and as such be punishable by both.

REQUISITES OF MILITARY CHARGES.

A military charge corresponds to a *civil indictment*. It consists of two parts—the technical "*charge*," which designates the alleged offense in general terms, and the "*specifications*," which set forth the facts constituting the same.

The requisite of the *charge* is that it shall be laid under the proper Article of War or other statute; but in the National Guard an offense involving a civil crime should be laid under the 61st or 62d Article of War, thus charging a purely military offense, and the offender should be brought to trial before a civil court for his offense against the laws of the State.

The requisite of the *specification* is that it shall set forth facts sufficient to constitute the particular offense. Under the general term "charges" any number of technical charges and their specifications may be included.

Charges must be signed by a commissioned officer; it is not necessary that he should be the accuser or even be acquainted with the facts in the case; he may sign charges preferred by another person, as a soldier or civilian, and he may be ordered by his superior officer to prefer and sign certain charges. A list of witnesses, by whom the charges can be proved, must be appended.

Enlisted men cannot prefer charges; they may make complaints, or furnish facts, which shall be the ground for charges.

PREPARATION OF CHARGES AND SPECIFICATIONS.

In order that an offender may be arraigned before a court-martial, his offense is written out in the form of a *charge*, and described in one or more *specifications*, and signed by an officer; a list of witnesses in the case is written underneath. The specifications of a charge follow after it; if there be more than one charge, they will all be prepared as one paper, not each charge and its specifications forming a document by themselves. This paper is forwarded through the intermediate channels to the authority that has the power to order a court-martial, and the offender is tried or not, as such authority may decide. It is important that the charges and specifications should be correctly drawn.

The charge is a clear, concise statement of the offense of which the offender has been guilty. When possible, the wording of the charge should be the same the law employs. The charge, "Conduct unbecoming an officer and a gentleman," implies "such conduct as unfits a man to be the associate of a gentleman." If more than one distinct offense has been committed, or more than one law has been violated, there should be a corresponding number of charges, numbered consecutively.

The *specification* is the narrative of the offense; it should specify the *name* of the offender in full, and his grade, company, and regiment, or other military position

held by him, and should state in plain, unequivocal language the facts, circumstances, and intent constituting the offense, and be specific as to the place where, and the time when, it was committed; so much so at least as to say *at or near* such place, *on or about* such a day. If the offense specified in the charge has been committed more than once, or in more than one way, there should be as many distinct specifications. The specifications, where there are more than one to a charge, are numbered consecutively under each charge.

The *specification* should be an account, not of what may have been committed, but of what can be proved, and the *charge* must be what the specification, if proved, would make it under law or custom.

Charges, after having been preferred, may be altered by the convening authority by additions or erasures, or he may cause to be drawn up entirely new charges upon the facts stated, and direct an officer to sign them.

The practice of delaying charges, or allowing them to accumulate, is contrary to the principles of justice.

Prisoners will be tried on joint charges only for offenses necessarily involving concert of action. In all other cases the charges must be separate.

The following is the oath to be taken by the members of general and regimental courts-martial: "You, A——— B———, do swear that you will, well and truly, try and determine, according to evidence, the matter now before you, between the State of [——] and the accused to be tried, and that you will duly administer justice, without partiality, favor, or affection, according to the established rules of law for the government of the military forces of this State; and you do further swear that you will not divulge the sentence of the court until it shall be published by the proper authority, except to the judge-advocate; neither will you disclose or discover the vote or opinion of any particular member of the court-martial,

unless required to give evidence thereof, as a witness, by a court of justice, in due course of law? So help you God."

Immediately after the court is sworn, the president of the court adminsters the following oath to the judge-advocate: "You, A—— B——, do swear that you will faithfully discharge the duties of judge-advocate of this court, according to the established rules of law for the government of the military forces of this State; and you do further swear that you will not disclose or discover the vote or opinion of any particular member of the court-martial, unless required to give evidence thereof, as a witness, by a court of justice, in due course of law; nor divulge the sentence of the court to any but the proper authority, until it shall be duly disclosed by the same? So help you God."

Witnesses must be examined on oath or affirmation in the following form, administered by the judge-advocate: "You swear (or affirm) that the evidence you shall give in the case now in hearing shall be the truth, the whole truth, and nothing but the truth? So help you God."

The oath is administered to the court by the judge-advocate, in the presence of the accused, and, if he fail to appear, in his absence. The members, standing, raise their right hands, while the judge-advocate, standing, says: "You, (calling the name of each member of the court), do swear," etc.

ORGANIZATION.

The hour having arrived at which the court is ordered to convene, the members take their seats in the order of rank, as given in the order convening the court, the president sitting at the head of the table, the other officers on his right and left alternately, according to rank, the judge-advocate at the foot of the table; a table and chairs are provided for the accused and his counsel to the right of the judge-advocate, and a chair for the witnesses at the judge-advocate's left.

The members wear full-dress uniform with their swords, except in inclement weather, when the president of the court may authorize undress uniforms; the judge-advocate appears in undress uniform without the sword; the accused, if an officer or non-commissioned officer, appears in full dress; if a private, in undress, and is without arms in any case. Military witnesses wear full dress, with their swords or side-arms.

The organization of the court is complete on the swearing in of the members and the judge-advocate.

The following is a recapitulation of special facts to be shown in the record:

1. All orders relating to detail.
2. The place and hour of meeting.
3. Names of members and judge-advocate, present.
4. Absentees noted and cause of absence stated.
5. Accused present—name correctly recorded through out proceedings.
6. If accused does not desire counsel, stated.
7. If reporter is employed, duly sworn.
8. Full right of challenge allowed accused.
9. If court is reopened, judge-advocate and accused present on reopening.
10. The court and judge-advocate duly sworn.
11. Accused arraigned.
12. Charges correctly copied.
13. Pleas recorded, in full.
14. If interpreter is employed, duly sworn.
15. Witnesses duly sworn.
16. Testimony read to witnesses for correction.
17. Prosecution rests.
18. Court adjourned, hour recorded.
19. Court met, hour stated.
20. Presence of members and judge-advocate, recorded.
21. Absence of members, heretofore present, noted.

22. Accused present.
23. Record previous day, read.
24. Accused sworn at his own request, or declined to be sworn.
25. Statement of accused:
26. Remarks of judge-advocate.
27. Court cleared, judge-advocate and accused withdrew.
28. Findings recorded.
29. Court reopened, judge-advocate and accused present, previous convictions read.
30. Remarks of accused.
31. Court cleared, judge-advocate and accused withdrew.
32. Sentence recorded and judge-advocate recalled.
33. Signatures of president and judge-advocate.
34. Adjournment signed, hour stated.
35. Proceedings indorsed.

GENERAL COURTS-MARTIAL.

General courts-martial may be ordered by the Commander-in-chief for the trial of officers and enlisted men, at such times as the interest of the service may require.

Officers can be tried only by general courts-martial. Enlisted men are tried by general courts-martial only for offenses so grave as to place them beyond the jurisdiction of inferior courts.

INFERIOR COURTS-MARTIAL.

The commanding officer of a regiment or separate command may appoint courts-martial, each to consist of a field officer, for the trial of offenses that are within the jurisdiction of an inferior court.

The field officer need not be specially sworn before entering upon his duties as a court. The law imposes this duty upon him as an officer, and he discharges it under

the obligations of his official military oath. The whole duty of the court is performed by him, as no separate officer, as judge-advocate or recorder, is provided for or required.

The proceedings of the field officer are necessarily summary. The record should be brief and distinct, setting forth the order detailing him as a court, the names of the offenders, the offenses with which they are charged, with the time and place of commission, the pleas, the findings, and the sentences imposed. The character and circumstances of the offense, in each case, should so far appear that the reviewing officer may be able to determine whether the court kept within its proper jurisdiction. The record should show that the accused was present before the court, or that he was duly summoned, and that the charges were investigated. When the accused is absent, the trial shall proceed as if he were present and pleaded not guilty. The testimony, except under very peculiar circumstances, need not be recorded; nor need it be set forth that the accused had an opportunity to offer evidence or make a statement. The proceedings will ordinarily be entered, in the form of an endorsement, on the paper containing the charges and specifications, and will be forwarded to the officer ordering the court, for his action.

The commanding officer convening such courts may approve, disapprove, pardon, or mitigate any punishment ordered by such court to be inflicted, endorsing his action on the record.

GENERAL ORDERS, NO. 137

HEADQUARTERS OF THE ARMY,
ADJUTANT-GENERAL'S OFFICE,
Washington, December 3, 1890.

By direction of the Secretary of War the following is published for the information and guidance of all concerned:

When charges are preferred against enlisted men for offenses heretofore cognizable by garrison or regimental court-martial, they will be laid before the post commander, who will cause the accused to be brought before the summary court within the statutory time. Here they will be arraigned and allowed to plead, according

to the practice of courts-martial. If an accused does not demand a removal of his case to a regimental or garrison court-martial, or if, being a sergeant, he does not object to trial by inferior court-martial, or if he does not object to be tried by the officer second in rank on the ground of his being the accuser, or if he does not plead guilty, witnesses will be sworn and testimony heard, the accused being permitted to testify and make a statement in defense; but the evidence and statement will not be recorded.

When the summary court shall have arrived at a finding and judgment, the "summary court record" book, with the entries therein made in accordance with the headings to its columns, will be laid before the post commander for his action, which also will be entered in the record-book, dated and signed. When a case is heard by the post commander, the proceedings will be recorded in the same book. No other record of the proceedings will be kept.

Post commanders will furnish company and other commanders extracts from the "summary court record" of the trials of men of their commands, to enable them to make the proper record in company books and on rolls and returns.

The trials of men before summary courts will not be published in orders.

The following form for the "summary court record" book has been adopted, and will be furnished by the Adjutant-General of the Army, with blank forms of reports required to be made monthly to department headquarters:

Summary Court Record.

No.	Name, rank, company and regiment.	Charges and specifications.	Names of witnesses.	When arrested.	When arraigned.	Plea.	Finding.	Sentence, with signature of trial officer.	Action of commanding officer, with date and signature.

BY COMMAND OF MAJOR-GENERAL SCHOFIELD:

J. C. KELTON,
Adjutant-General.

Summary courts are subject to the restrictions named in the 83d Article of War. Soldiers against whom charges may be preferred for trial by summary court shall not be

confined in the guard-house, but shall be placed in arrest in quarters, before and during trial and while awaiting sentence, unless in particular cases restraint may be deemed necessary.

Sergeants shall not, if they object thereto, be brought to trial before regimental, garrison, or summary courts-martial, without the authority of the officer competent to order their trial by general court-martial; nor shall sergeants of the post non-commissioned staff be reduced, but they may be dishonorably discharged whenever reduction is included in the limit of punishment.

COURTS OF INQUIRY.*

A court of inquiry may be ordered by the Commander-in-chief to examine into the nature of any transaction of, or accusation or imputation against, any officer or soldier.

A court of inquiry consists of one or more officers, not exceeding three, and a recorder, to reduce the proceedings to writing. A court of inquiry and the recorder thereof have the same power to summon and examine witnesses as is given to courts-martial and the judge-advocates thereof.

The proceedings and records of courts of inquiry follow the rules prescribed for the guidance of general courts-martial, and the president has the same powers as the president of a general court-martial.

The recorder of a court of inquiry is not a member thereof; his powers and duties correspond to those of the judge-advocate of a general court-martial.

A new member may be appointed and take his seat at any time after the court has been organized, but the previous testimony must be read over to him.

The recorder of a court of inquiry shall administer to the members the following oath: "You shall, well and truly, examine and inquire, according to the evidence, into the matter now before you, without partiality, favor, affection, prejudice, or hope of reward? So help you God."

*In the National Guard.

After which the president of the court shall administer the following oath to the recorder: "You, A——— B———, do swear that you will, according to your best abilities, accurately and impartially record the proceedings of the court and the evidence to be given in the case in hearing? So help you God."

The prescribed oath does not compel secrecy on the part of the members of a court of inquiry and the recorder in regard to the proceedings, but such secrecy as is required of members of courts-martial should be observed.

The officer or soldier to be investigated is allowed the right of challenge for cause.

Courts of inquiry are inherently closed courts, to which auditors and spectators may have access by permission, and not of right.

Courts of inquiry need not confine themselves to the rules of evidence which govern courts-martial; they may often allow much greater latitude than such courts. The investigation of a court of inquiry is not a trial.

The order convening a court of inquiry must state whether the court is to report facts or not, also whether or not it is to give an opinion. It may be ordered to report the facts with or without an opinion. By *facts* is understood, not the testimony merely, but the conclusions gathered from weighing all the testimony. The court should also be instructed whether its attention is to be extended to a general investigation, or to be confined to the examination of particular points only, as the case may seem to require, in the judgment of the Commander-in-chief. Where the subject is multifarious, the court should be instructed to state its opinion on each point separately, that the proper authority may be able to form his judgment.

After mature deliberation on the evidence adduced, they proceed to find a state of facts, if so directed by the order constituting the court, and to declare whether or not the grounds of accusation are sufficient to bring the

matter before a court-martial, and also to give their opinion of the merits of the case, if so required.

The proceedings must be authenticated by the signatures of the president and recorder, and sent to the Commander-in-chief, through the Adjutant-General. The said proceedings may be admitted in evidence by a court-martial, provided oral testimony cannot be obtained.

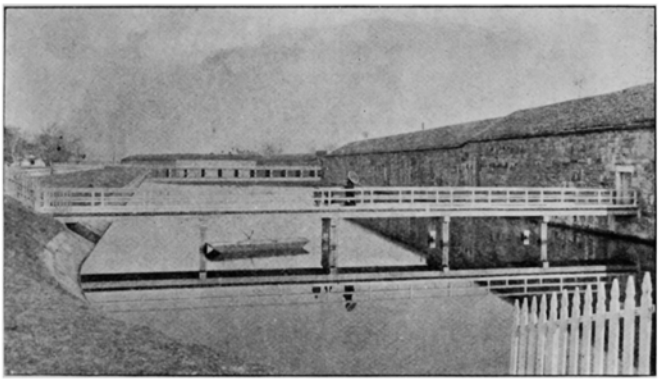
It is not necessary to publish the proceedings or opinion of the court, although it is usually done in general orders.

CHAPTER IX.

MILITARY ENGINEERING.

That branch of Military Engineering known as fortification refers to any permanent or temporary artificial protection against an enemy.

Permanent fortifications in the United States are chiefly confined to the defenses of our sea-coast cities and



"OLD POINT COMFORT," FORT MONROE, VA.

important harbors, and are intended to be used in connection with the Navy to repel attacks from an enemy's ships. Such works are constructed in time of peace, and should be armed with modern guns of high power and long range.

General Abbot, of our Engineer Corps, states in his "Defense of the Sea Coast of the United States," that: "A sea-coast fortress of to-day, suited to the needs of this country, consists of a central 'keep' provided with bomb-proof quarters and arranged for a vigorous defense; of detached high-power gun batteries (turrets, iron case-mates, lifts, barbette batteries for disappearing guns, open barbette batteries, etc., according to circumstances), so placed as to sweep the channel and approaches, but with ample space between their sites to prevent mutual interference; of detached mortar batteries, usually in rear of the guns, and, so far as possible, out of sight of the enemy; of machine guns in covered positions to sweep slopes and approaches, and the interior of the batteries in case of surprise; of wire and other entanglements to check the advance of the escalade parties from boats; of secure operating-rooms, cable shafts, galleries, and flanking guns for the mine zones; of position-finders suited to the locality, for determining ranges and controlling the fire of the guns and the operation of the mines from the station of the commanding officer; of suitable arrangements for sweeping the approaches by the electric lights, and for using movable torpedoes under control from the shore."

FIELD FORTIFICATIONS.

Field fortifications are more hastily constructed works to supply temporary emergencies for "troops in the field" at the time of construction. Such fortifications are subdivided into ordinary and hasty field fortifications. The ordinary being finished with some attention to detail, while the hasty fortfication may consist of a simple trench, a breastwork of logs, or cotton bales, or any crude form of protection against bullets. Four general conditions are required to be satisfied in constructing a field fortification, as follows:

1. A shelter must be provided to afford protection to the defenders and to hide them from view, while at the same time allowing them to see all approaches.

2. This shelter must be so placed as to command by its fire all the country within range of its guns.

3. By means of natural and artificial obstacles, it should be made very difficult for the enemy to reach this shelter.

4. Those obstacles, however, should not be allowed to interfere with the free movements of the defenders.

DIFFERENT KINDS OF FIRE.

Fire, as to its direction relative to the object, is said to be either *front, oblique, enfilade,* or *reverse.*

Front, when it strikes the front of a visible object, or is delivered straight to the front.

Oblique, when the object aimed at is struck in front, but not perpendicularly.

Enfilade, when the fire is directed along a rampart or line of troops.

Reverse, when it strikes the parapet or line in rear.

Again, fire, with reference to its trajectory, may be either *direct, curved,* or *indirect, high-angle, grazing,* or *plunging.*

Direct fire is delivered against a visible object at moderate angles of elevation, in the case of artillery not exceeding 15°, using full charges.

Indirect or *curved fire* is delivered against an object not necessarily visible, or from guns with reduced charges, at angles not exceeding 15°.

High-angle fire is the fire from guns at all angles of elevation exceeding 15°.

When the projectile sweeps the surface of the ground, the fire is called *grazing.*

When depression is required, or the object is much below the gun, the fire is called *plunging.*

Ground should be cleared for at least 300 yards to the front of a defensive position, and, if possible, to the extreme limits of fire.

When clearing the ground for defensive purposes, trees must be cut off close to the ground, otherwise the stumps will afford good cover to the enemy.

Tall grass, corn, or reeds must be trampled down by men in line, cut down, or burnt.

Hollows must be filled up with débris or abatis.

Hedges parallel to the front must be removed. Those perpendicular to the line may generally be left standing.

Walls can be knocked down by a party of men using a trunk of a tree or a railway iron as a battering-ram. Low buildings may be similarly treated. If high, they must be blown down and the ruins levelled, so as not to give cover.

A hard-wood tree 1 foot in diameter should be cut down by one man, with a felling axe, in 12 minutes, and the rate of progress with larger trees will vary approximately as the cube of the diameter. Half to one-third of these times may be allowed for soft-wood trees, such as fir, larch, or poplar.

Large trees when felled must be lopped to prevent their acting as cover on the ground. Much of the timber felled in clearing will be useful in the defensive works, and should be cut into lengths of 8 or 10 feet, which can be removed in wheelbarrows or wagons, and will be useful in the construction of field casemates, etc.

Troops at 5 paces apart can clear 30 paces forward in brushwood 5 or 6 years old (about 1 inch in diameter) in 8 hours.

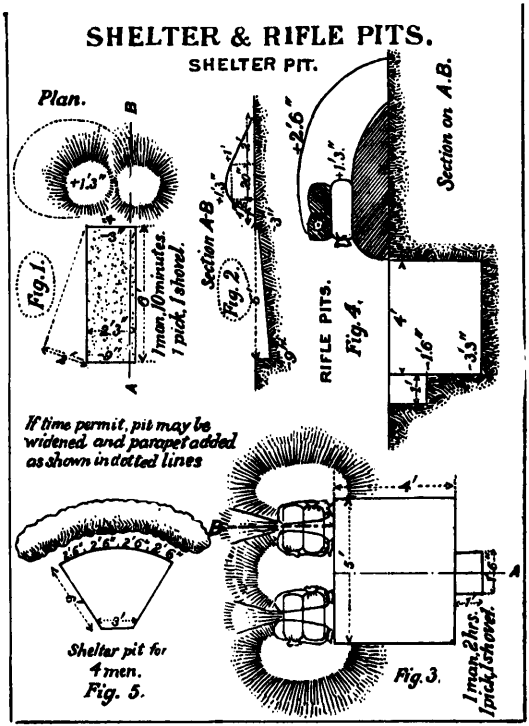
The hasty entrenchments by which the natural defensive features of a position will have to be supplemented are, as a rule, threefold:

(*a*) Cover for skirmishers, *shelter-pits* and *rifle-pits*.

(*b*) Cover for shooting-line, *supports*, and *reserves*, *shelter-trenches*, *breastworks*, and *epaulements*.

(*c*) Cover for artillery, *gun-pits* and *gun-epaulements*.

Figs. 1 and 2 give the plan and section of a shelter-pit for one man, which can be made in about 10 minutes. In this pit a man fires lying on his stomach, in which position



his legs are usually inclined to the left. If, to admit of this, the pit be first made at an angle to the line of fire, the legs are exposed; but, when made direct, as in plan, the

legs are protected; and, if time be afterwards available, it can be improved as shown by dotted lines to suit the inclined position.

A short length of trench of similar section is suitable for groups of two or more men, allowing 2 feet 6 inches per man. (Fig. 5.)

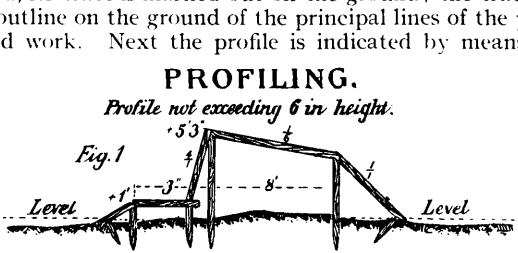
Rifle-pits are merely shelter-pits of a somewhat stronger type, used in positions of importance, where a very limited range of fire is required, as in keeping down the fire of a fortress. Figs. 3 and 4 show plan and section of a pit to contain two men, and a series of such pits may be connected together by a trench of the same depth as the pit and 2 feet wide. One man with a pick and shovel should make such a pit in about 2 hours.

Boughs of trees, leaves, grass, etc., should be scattered over the earth thrown out, so as to make it resemble the surrounding surface.

As soon as the site of a field fortification has been selected, its trace is marked out on the ground; the trace is the outline on the ground of the principal lines of the proposed work. Next the profile is indicated by means of

PROFILING.

Profile not exceeding 6 in height.



light lumber strips, or laths, fastened together at the angles which it is desired to give the different slopes. The profile is erected at intervals of about 30 feet along the trace. The profile is defined as a cross-section of the fortification made by passing a vertical plane in a direction perpendicular to the directing line of the trace (the interior

crest). Different forms of profile are shown in Figs. 1, 2, and 3, page 144; the one shown in Fig. 3 being the most modern form and possessing the advantage of a ditch without any part unprotected by the fire of the defenders.

Fig. 4 shows another form of profile and Fig. 5 shows the profile of a hill it is proposed to fortify. Should an earthwork be erected on this hill, supposing an enemy was expected from the direction E, the proper place to put it would be at C, since C is the military crest of this hill. The military crest of a hill is *the top of the steepest slope*, but not necessarily the top of the hill.

The straight line and the redan are the simplest forms of trace. The redan has two faces like the letter V inverted. It is shown in Fig. 6, page 141. The lunette has four faces, like Fig. 7, page 141. The open side of a lunette or redan is called a gorge. A line perpendicular to the gorge is called the capital.

What is known as a bastioned work is the most approved form of trace for a field work, since it secures a line of fire from every direction of approach and also protects the ditch. It is, however, open to the objection that it takes too much time in its construction if erected in the vicinity of an enemy. The trace of a bastioned fort (see Fig. 8 page 141) is constructed as follows:

Let AB be one of the sides of a circumscribing square. Bisect this side and at its middle point C erect a perpendicular, CP, equal to one-eighth of AB. Join the point P thus determined with the ends A and B of the side of the square. Lay off from A and B on the lines AP and BP the distances AG and GH, each equal to two-sevenths of AB. Draw through G the line GF so that the angle GFB shall not be less than 90° nor greater than 110°, and produce it until it intersects the line BP prolonged. Do the same at H, so that the angle HDA shall fall within the limits named. Join the points F and D thus determined by a straight line. Then the line AGFDHB will be the trace of

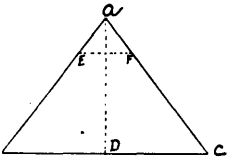
a bastioned front for one side of the square. Other sides are similarly constructed.

The trace of a work is decided by the lay of the ground and the intended size of its garrison at the rate of two men per yard of firing-line. Each field gun requires for its working a space of 15 feet along the firing-line of the parapet and 20 feet to the rear. The faces of a field work should bring as straight a fire to the front as the ground will admit of. Salient angles should be avoided, and should never be less than 60°. Flanks should not be less than 12 yards long and should be traced at not less than a right angle to the line they flank. The gorge, if closed, can either be straight or broken outwards or inwards (line BC, Fig. 6 and CE, Fig. 7, page 141). In advanced works it is often left open, or sometimes roughly closed by obstacles which will resist assault, but can give no cover to the enemy if captured. Traverses or parados are banks of earth raised in the interior of works as an additional protection to the garrison from the enemy's fire —the parados more especially for reverse fire. Advanced works within range of main line will generally be open works in main line half closed, and those in important or detached positions closed (able to resist attack all around).

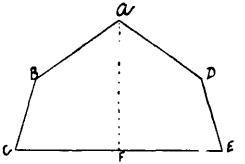
Fig. 2, page —, gives the technical terms used in connection with the profile. The section ABCDEF is the profile of the parapet; the section GHJK is the profile of the ditch; and both together constitute the profile of the fortification, or, as it is generally called, the "profile."

This mass of earth must be made high enough to screen the men on the terreplein, AP, from the enemy's view, and it must be made thick enough to intercept his missiles, and thus afford shelter to those behind it.

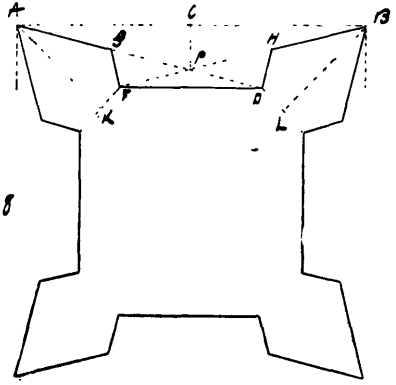
When the mass of earth has a height, DD', above the ground, of over 4 feet 6 inches, some arrangement must be made by means of which the defenders can deliver their fire over it and upon the ground in front of it.



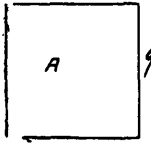
6



7

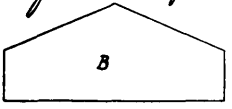


8

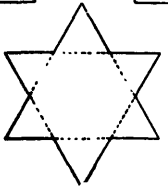


9

Other forms of traces



10



11

This is provided for in ordinary field fortifications by means of a small terrace, BC, of earth, called a banquette, placed at a convenient distance below the top of the mass.

The upper surface of this terrace is called the banquette tread, and is connected with the terreplein by a gentle slope, AB, called the banquette slope. Sometimes steps are used instead of the slope.

Even when raised high enough, the soldier would find it inconvenient to fire over the mass of earth if it be left in the condition it takes when first heaped up. The upper surface of the mass is therefore sloped off at a convenient inclination, and is joined to the banquette tread by a slope, against which the soldier can lean in an easy position.

This upper surface, or top of the mass, is termed the superior slope, and the surface connecting it with the banquette tread is called the interior slope; the surface connecting the superior slope with the ground in front is called the exterior slope.

BERM.

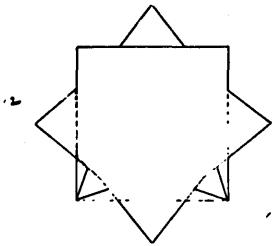
The horizontal surface, FG, which connects the exterior slope of the parapet with the ditch is called the berm. The berm coincides with the natural surface of the ground in ordinary field fortifications.

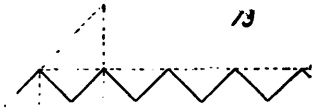
DITCH.

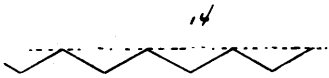
The ditch may have almost any form of cross-section; the usual forms are triangular or trapezoidal.

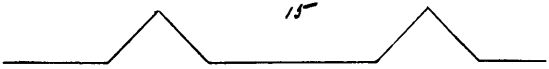
The surface of the side next to the parapet is called the scarp; the surface opposite to the scarp is called the counter-scarp.

Sometimes there is placed a mass of earth, LMN, on the opposite side of the ditch, with the upper surface, MN, arranged with a gentle slope to the front; this gently sloping surface is called a glacis, a name also applied to the entire mass of earth so arranged.

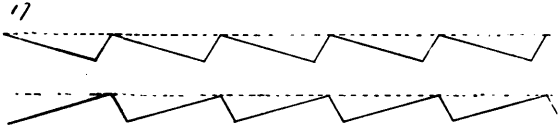


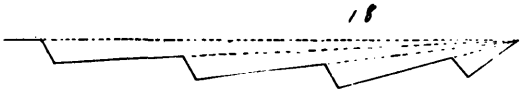

13

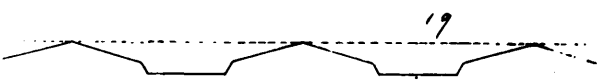

14


15


16


17

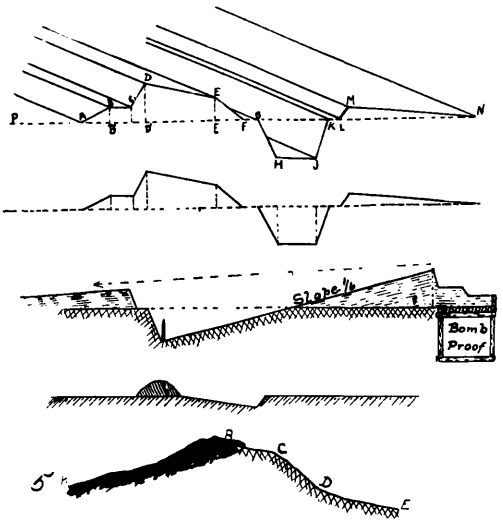

18


19

CREST, FOOT, ETC.

Particular names are given to the lines of intersection of the surfaces, which have just been mentioned, to distinguish them from each other.

The intersection of surfaces making a salient angle with the plane of site is termed a crest; if a re-entering angle, it is called a foot; and each intersection receives a characteristic name from the slope to which it belongs.



Thus, the intersection of the banquette slope with the terreplein is, from the definition, a foot; and with the tread, a crest. These lines are respectively called "the foot and crest of the banquette slope."

The intersection of the interior slope with the superior slope is simply called the interior crest, while the inter-

section of the superior slope with the exterior slope is simply called the exterior crest; all others following the rule just given.

PRINCIPAL LINES OF THE PROFILE.

The principal lines cut from the slopes by the vertical plane may now be enumerated, page 144, No. 1.

The site, PGKN; the banquette slope, AB; the banquette tread, BC; the interior slope, CD; the superior slope, DE; the exterior slope, EF; the berm, FG; the scarp, GH; the bottom of the ditch, HJ; the counterscarp, JK; the interior slope of the glacis, LM; the glacis, MN; the interior crest is at D.

To furnish enough earth to build the parapet is the principal object of the ditch.

The height and thickness of the parapet having been assumed, its cubical contents are easily determined, and then the dimensions of the ditch can be determined.

Incidentally, the ditch can be arranged as an obstacle to an assault.

The ruling dimensions of a parapet are the command and the thickness; the command being the height of the highest point (the interior crest).

To defilade a work is to arrange the heights of its parapets so that the defenders may be screened from view and from the fire of the enemy.

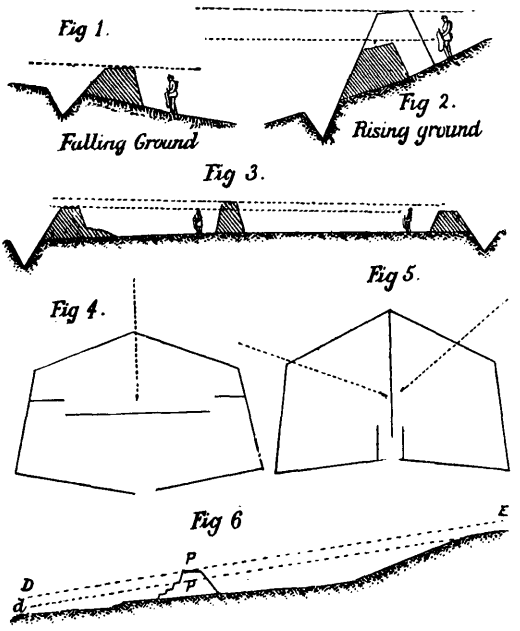
The parapets will rarely suffice for this purpose, as their command is limited to 10 or 12 feet, and seldom exceeds 8 feet.

Traverses or parados must therefore be used, as shown in Figs. 3, 4, and 5, page 146.

The trace of a work having been determined on, and laid down, it can be roughly defiladed by placing banderoles at the angles and marking on them the points where they are cut by the line of sight of a man standing at the gorge, and directed on the enemy's position. The man's eye during the operation should be 3½ feet above the ground,

and the command of the parapets should be $4\frac{1}{2}$ feet above the points so found.

Fig. 6 explains this. A man stands at *d* in the gorge line of the work, his eye 3 feet 6 inches above the ground; his line of sight directed to touch the ground at the

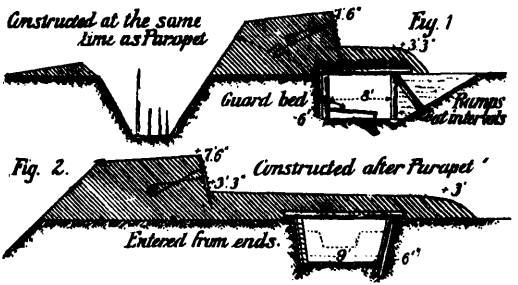


enemy's position in *e*, cuts the front banderole in *p*. But the enemy will deliver his fire from a point E, 4 feet 6 inches above *e;* therefore, the crest of the parapet P must be 4 feet 6 inches above *p*.

The reason the eye is placed 3 feet 6 inches above the ground at *d*, is because 3 feet 6 inches *plus* 4 feet 6 inches equals 8 feet, which is the height of cover requisite to protect a man at *d* from the view or close fire of the enemy at E.

Covered accommodation must always be provided in positions which have to be occupied for any time, both as a protection against shell fire and the inclemency of the weather. Such structures, generally made from rough timbers or railway plant and covered with earth, are rarely

FIELD CASEMATES.



bomb-proof, but they can be easily made splinter-proof, and are called field casemates.

Fig. 1 is a casemate constructed under and simultaneously with the parapet.

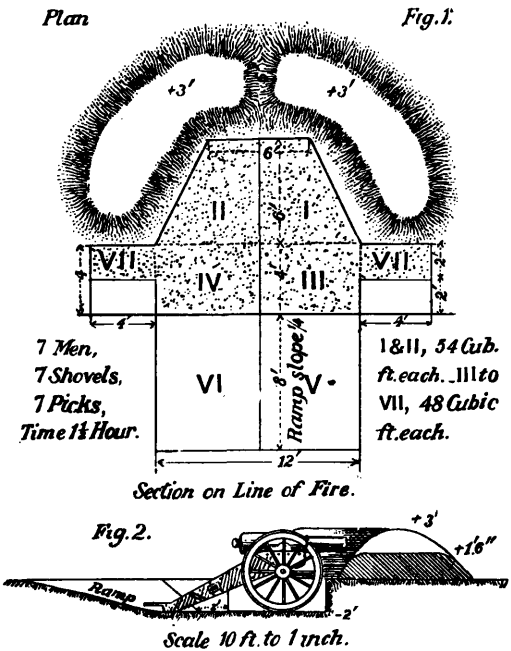
Fig. 2, made by deepening and covering over the trench, can be made after the parapet is finished.

In all cases where men are required to fire from a shelter-trench, or over a breastwork, they should have cover for their heads. This may be obtained by giving extra height to the parapet between every two rifles, or, better still, by using some arrangement of loophole.

A bullet-proof log may be placed on the crest resting on sandbags, or stones, so as to leave a space for rifles to fire underneath.

Blinded loopholes, made by covering the opening with a layer of brushwood and earth, give good protection.

GUN PIT.



Sandbag loopholes are made of four sandbags, the small part of the splay towards the enemy. The bags must be well filled and beaten, and the two lower ones

placed on edge; the upper ones may be supported, if necessary, by pieces of wood.

The maximum heights *over* which fire can be delivered are:

For a field, machine, or quick-firing gun, 3 feet to 3 feet 6 inches.
For a man standing, 4 feet 6 inches.
For a man kneeling, 3 feet.
For a man lying down, 1 foot.

Cover for guns can be obtained either by sinking them in a pit or covering them by an epaulement. The former would be used where the top surface of the ground is soft, and no natural cover exists, as, for instance, in an open ploughed field; the latter where existing banks can easily be modified into the requisite epaulements, or where the natural surface of the ground is hard and well adapted for working the guns, such as gravel, metalled roads, or even sound turf.

In the former, the gun cannot be brought into action until the pit is completed; while in the latter, fire can be opened at any moment, the construction of the epaulement even going on while the gun is in action.

A gun-pit for a field gun is shown on page 148. The dimensions must be altered to suit different natures of guns.

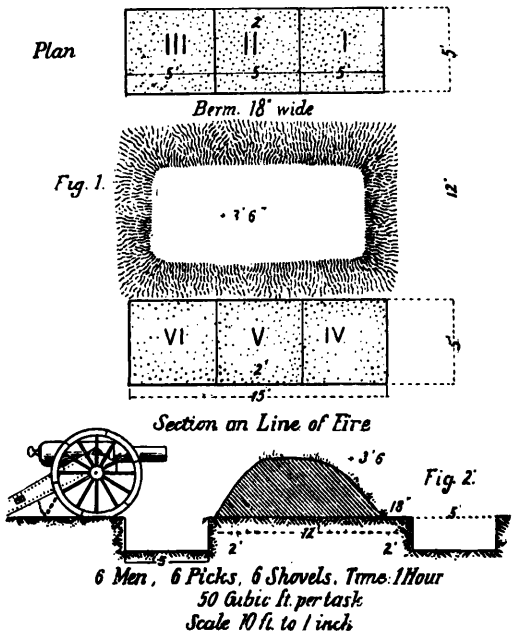
The gunners obtain cover by standing in the excavation in a gun-epaulement, page 148.

Obstacles are used to add to the strength of a defensive position by increasing the difficulty of reaching it. They are more especially difficult to overcome in night attacks. Barbed wire has been used with more or less success in recent wars. We are told in General Alger's book:* "Fortifications surrounding Santiago consisted of almost continuous entrenchments, especially designed to oppose the advance of cavalry, and located on rising ground for rifle fire. Two lines of barbed wire, running parallel, about 3 yards apart, completely surrounded the town;

* "The Spanish-American War."

each fence, consisting of seven or eight strands with wire running diagonally across, formed a network of entanglements."

GUN EPAULMENT.

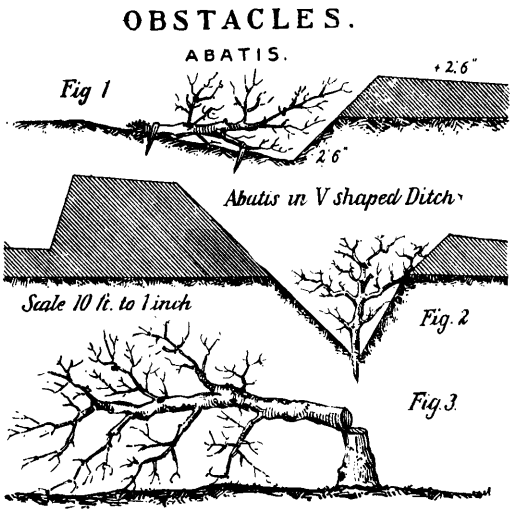


Where trees can be found for the purpose, abatis formed of limbs of young trees firmly secured, and interlaced with branches trimmed, pointed, and turned towards the enemy, form a very effective obstacle.

Military pits are useful in open ground as obstacles, especially against cavalry. A pointed picket is driven into each.

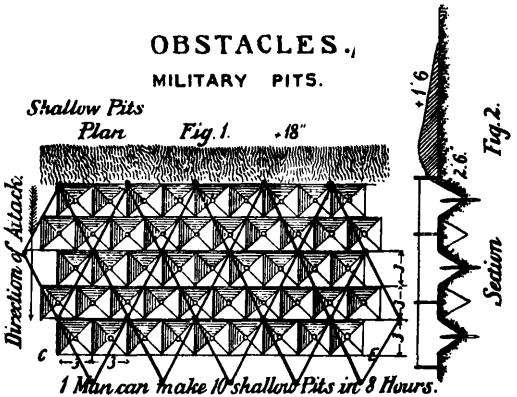
Other forms of obstacles are wire entanglements, fraises, and palisades.

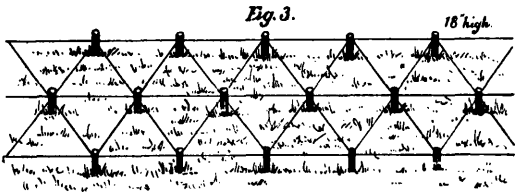
For street fighting, barricades are used as obstacles.



Palisades are used for the defense of ditches, and for closing the rear or gorges of partially enclosed works. They are made of timbers about 10 feet long, arranged so as to form a stout open paling, and pointed or spiked at the top. The timbers may be round, split, or sawn to a rectangular or triangular section; they should be 6 to 8 inches wide, and are placed upright about 4 inches apart and spiked to two ribands about 1 foot from either end,

the butt ends being sunk 3 or 4 feet deep into the ground. The top riband should be on the defender's side of the palisade. They are most conveniently made and placed in lengths of 10 or 12 feet, the ribands being arranged so as to overlap.



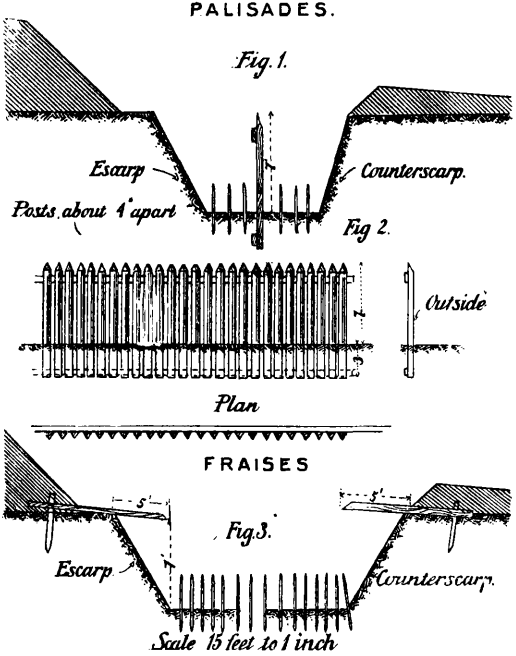


Fraises are palisades placed horizontally, or nearly so. They should point downwards if placed on the defender's side of the ditch, and upwards on the enemy's side. Both

ribands are buried, the one nearest the points being placed underneath, the other on top. The points should, if possible, be 7 feet above the bottom of the ditch.

OBSTACLES.

PALISADES.



Crow's feet are formed of four iron spikes 3 inches long, welded together or joined by a central moulding in such a manner that however placed one spike is always pointing upwards.

Barricades, used to close streets, roads, and bridges, can be made of any materials at hand. They should not, as a rule, completely close the road to traffic, but be made in two overlapping portions, or be placed where a house standing back from the general line of building allows a passage round the barricade.

The defenders should be able to fire over them, and, if placed in a street, they should be flanked both in front and rear by the fire from adjacent houses.

Fougasses are inclined holes dug in the ground, a charge of powder placed at the bottom, and loaded with stones, brickbats, or live shells. They can be fired either by fuse or electricity, and are useful for defense of defiles, against boat landings, etc.

Inundations can be made by damming up a stream. A bridge is a good place to select for the purpose.

If the inundation is likely to be very shallow, the ground should be first prepared by digging irregular trenches and holes, the existence of which will render the passage of even a shallow inundation a difficult matter.

To be effective, obstacles—

(*a*) Must be placed under the effective fire of the defender, usually between 100 and 300 yards; afford the enemy no cover, and, if possible, be sheltered from his artillery fire.

(*b*) They should be difficult to remove or surmount, and will be most effective if special appliances, not usually carried by troops, are required for their removal.

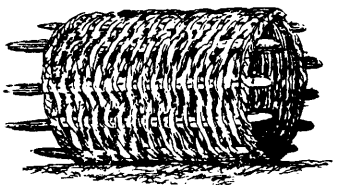
(*c*) They should, if possible, be so placed as to come as a surprise to the assailants.

(*d*) They must not interfere with counter-attack.

SIEGES.

The first thing done on laying siege to a fortified place is to dig a trench or ditch about 3 feet deep and 4 feet broad, and to throw up the earth so removed in front of

the trench, thus forming a cover for the troops who are to protect the sappers and miners while constructing the attacking batteries. This trench is constructed at a short distance from the salients or prominent works of the fortress, and, as it follows the general outline of the fortress, it is called the first parallel. The engineers trace the ground at nightfall, and by the ensuing morning the work has been completed to the above extent. In the course of the day



A GABION.

the parallel is widened to the extent of 10 feet. The construction of this and all subsequent works in a siege is called "sapping," and the men employed to work are "sappers." The batteries are now constructed of earth, gabions, fascines, sandbags, hurdles, and the guns are placed in position so as to bear upon the points of the fortress selected for attack.

Gabions (from the Italian word *gabbia*, a cage) are cylindrical baskets of osierwork, 2½ feet in length and 1½ feet in diameter. Placed on end and filled with earth, they contribute to the formation of a stout wall or parapet. The first parallel is often composed of gabions filled rapidly with earth, and this is termed a flying sap.

Fascines are bundles of faggots or brushwood, from 6 to 18 feet in length, bound together so strongly as to be proof against musket-shot.

Sandbags are, as the word implies, made for the reception of earth.

Hurdles, which correspond in form and material with those ordinarily used as fences, are serviceable in retaining

earth at a steep slope. When these artificial works are resorted to for the purpose of strengthening an earthwork, it is called revetting them. A revetment is an arrangement of materials for imparting solidity to works. The parapets of bastions and curtains are sustained by revetments of brick and stone.

Close to the flanks or outer extremities of the first parallel, cavalry are held in readiness to act against sorties, and, for their protection, epaulements, or mounds of earth, are raised.

When the fire from the batteries has begun to produce an effect on the fortress, the second parallel is commenced.

To establish this second parallel without being enfiladed by the fire from the walls, it is necessary to approach obliquely. These approaches are called zig-zags, and are



A FASCINE.

directed upon the capitals or salient angles of the fortress. The approach is commenced by a flying sap. To enfilade is to sweep a line of works or body of troops from end to end in the direction of its length.

The third parallel is established at a short distance from the walls of the fortress. Light mortars are placed in the batteries in this parallel, to shell the outworks and covered ways.

During these advances toward the works of the fortress, large bodies of infantry occupy the trenches, watching the defenses, and prepared to resist sorties. If the garrison, or a part of the garrison, makes a sortie upon battery, it endeavors to spike the guns, and thus render them incapable. Spiking a gun is effected by driving a spike—a sort of steel nail, 4 inches long, with a flat head, and a barb or spring in the shaft—into the vent. The moment it has been made, by a smart tap on the head, to

enter the vent (or touch-hole), the barb expands, and then the spike cannot be immediately extracted. Consequently the gun is, for the time, rendered perfectly useless. The spike can only be removed by drilling the vent, which nearly ruins the gun. When steel spikes are not available, recourse is had to wooden pegs broken close off at the surface.

Advancing from the third parallel, approaches are made on the capitals or salients of the bastions, and, should the garrison still keep up an active defense, demi-parallels are constructed to protect the works closely, and lofty parapets are raised to enable the assailants to pour a heavy fire over the glacis. The way being cleared, the sap advances to the very crest or top, of the glacis, and then the covered way is crowned by excavations embracing the contour of the glacis before the attacked faces. Men are now placed under cover of sandbags, loopholed, to fire upon the enemy, who may show themselves upon the parapets and in the embrasures (the openings for the guns). Batteries called counter-batteries are next constructed to destroy the flanks of the bastions. While the operation is going on, working parties of sappers are engaged in constructing subterranean galleries or passages for an easy descent into the ditch from the glacis, and, crossing the ditch, they establish mines beneath the bastions of the fortress. The mines are formed by excavations beneath that part of the fortress which it is desirable to enter by assault. Charges of powder and other explosives are placed within these mines, and a train, formed of a hose filled with powder, is attached to the charges, or they may be fired by an electric current. The sappers and miners then retire to a place of safety, the signal is given for the explosion of the mine, and the assault commences upon the breach thus established. The garrison, during the time that the mining has been going on, may have resorted to counter-mining, and the besiegers may find that counter-mines have been formed beneath the glacis and covered way, so that they themselves may be blown up when they reach that position.

CHAPTER X.

MILITARY HYGIENE.

It is an axiom in military life that more sickness and death is caused, even in an active campaign, by a disregard of the rules of healthful living than by the enemy's bullets. Great care should therefore be exercised by commanding officers, both in camp and garrison, to see that privies and sinks are kept away from the kitchen and constantly covered, that the water used by the men in hot climates is boiled, and that the following directions, which have received the endorsement of the War Department, are observed by the men:

Before starting on a campaign the soldier should provide himself with the necessaries for personal cleanliness and for keeping his clothes in repair: towel, soap, toothbrush, pocket-comb, and a looking-glass, with needles, thread, and a few strong safety-pins and spare buttons. His shoes and socks should be carefully selected to fit, and it is well to have shoes broken in by a few days' usage before starting.

At rests on the march, he should sit down or lie down if the ground is suitable, for every minute so spent refreshes more than five minutes standing or loitering about.

At the mid-day rest lunch should be eaten, but it should always be a light meal.

On the march or during exercise in hot weather the body loses water continuously by the skin and lungs, and this must be replaced as it occurs to keep the blood in proper condition. Only a few swallows should be taken at a time, no matter how plentiful the water supply may be. When exceedingly thirsty after a long, dry stretch, water

should not be taken freely at once, but in smaller drinks at intervals, until the desire for more is removed.

Smoking in the heat of the day or on the march is depressing, and increases the thirst.

On hot marches water should be taken quite frequently, but, as already stated, in small quantities at a time, to replace the loss by perspiration. This will often prevent attacks of heat exhaustion and sunstroke.

On a hurried or forced march, particularly in sultry weather, a soldier may become faint and giddy from the heat and fatigue. His face becomes pale, his lips lead-colored, his skin covered with clammy perspiration, and he trembles all over. His arms and equipments should be removed and his clothing loosened at the neck, while he is helped to the nearest shade to lie down, with his face low, until the ambulance-train or wagons come up. Meanwhile fan him, moisten his forehead and face with water, and, if conscious, make him swallow a few sips from time to time.

In sunstroke the man is unconscious and often has convulsions. He should be cared for as stated elsewhere, using cold water freely on the head, face, and body until the arrival of the surgeon.

Military operations often have to be conducted without regard to temperature, but in hot weather unnecessary exposure to the sun should be avoided.

When camp is reached and the tents pitched, each tent should be trenched to keep out the rainfall, even although rain seems unlikely. Each man should then prepare the floor for his bed by picking out hard irregularities and scooping a shallow depression for the hip-bones. Grass, hay, leaves, and other available material should be laid on as a mattress, with the rubber poncho or slicker over all to keep dampness from the body. In good weather blankets should be unrolled and spread out to air before the time for their use.

If the soldier comes into camp much exhausted, a cup of hot coffee is the best restorative. When greatly fatigued, it is dangerous to eat heartily.

When the tents have been arranged for the night and the duties of the day are practically over, the soldier should clean himself and clothes as thoroughly as the means at hand will permit. No opportunity of taking a bath or of washing socks or underclothing should be lost. In any event, the feet should be bathed or mopped with a wet towel every evening to invigorate the skin.

When malarial fevers are prevalent, hot coffee should be taken in the morning immediately after roll-call, and men going on duty at night should have a lunch and hot coffee before starting.

The soldier should never dose himself with medicine. He should take no drugs except such as are prescribed by the surgeon.

No matter how short a time the camp is to be occupied, its surface should not be defiled. The sinks should be used by every man, and the regulations concerning their use should be strictly complied with. Waste water and refuse of food should be deposited in pits or other receptacles designed to receive them. Attention to these points will prevent foul odors and flies.

When there are foul odors and flies in camp, the spread of typhoid fever, cholera, dysentery, and yellow fever is likely to occur.

When any of these diseases are present in a command, every care should be taken to have the hands freshly washed at meal-times.

In the camps of field service the interior of tents should be sunned and aired daily, and efforts should be made by every soldier to have his bunk, arms, equipments, and clothing in as neat and clean condition as if he were in barracks at a permanent station.

Harmful exposures are more frequent in hot than cold weather. Soldiers seek protection against cold, but in

seeking shade, coolness, and fresh breezes in hot weather they often expose themselves to danger from diarrhœa, dysentery, pneumonia, rheumatism, and other diseases. A chill is an exciting cause of these affections; it should be avoided as much as possible.

When the feet become wet, the first opportunity should be taken of putting on dry socks.

When the clothing becomes wet in crossing streams or in rain-storms, there is little danger so long as active exercise is kept up, but there is great danger if one rests in wet clothing.

When the underclothes are wet with perspiration the danger is from chill after the exercise which caused the perspiration is ended. If the soldier cannot give himself a towel-rub and a change of underclothing, he should put on his blouse and move about until his skin and clothes become dry.

To rest or cool off, and particularly to sleep, in a cool, shady place in damp clothes is to invite suffering, perhaps permanent disability or death.

When an infectious disease is known to be present among the civil population in the neighborhood of a military camp or station, care should be taken by every member of the command to avoid exposure to the infection. Scarlet fever, measles, and diphtheria are met with in the United States, but in some localities our troops may have to guard against smallpox, yellow fever, cholera, and bubonic plague. The careless or reckless individual will be the first to suffer, but he may not suffer alone; many of his comrades may become affected and die through his fault.

Such infections prevail mostly among the lower classes of a community, who have no knowledge of the difference between healthful and unhealthful conditions of life. Communication with them should therefore be avoided.

The soldier should remember that association with lewd women may disable him for life.

In the continued absence of opportunity for bathing it is well to take an air bath and a moist or dry rub before getting into fresh underclothes, and, in this case, the soiled clothes should be freely exposed to the sun and air when the blanket-roll is unpacked.

By attention to cleanliness of the person and of the clothing, the discomforts of prickly heat, chafing, cracking, blistering, and other irritations of the skin will be avoided. If chafings do occur, apply to the surgeon for a healing remedy, for, if neglected, they may fester and cause much trouble.

A hearty meal should be eaten when the day's work is over, but the soldier should eat slowly, chewing every mouthful into a smooth pulp before swallowing; and it is good when one can rest awhile after this meal. Hard bread and beans, when not thoroughly chewed, give rise to diarrhea, one of the most dangerous of camp diseases. Fresh meat should be eaten sparingly when used for the first time after some days on salt rations.

The soldier would do well to restrict himself to the company. Particularly should he avoid the articles of food or drink for sale by hawkers and peddlers. Green fruit and overripe fruit are dangerous, as is also fruit to which the individual is unaccustomed. Unpeeled fruit should never be eaten, for it may have been handled by persons suffering from dangerous infectious diseases.

It should be unnecessary to speak of the danger from the use of intoxicating liquors, for everyone knows something of this. The mind of a man under the influence of these liquors is so befogged that he is unable to protect himself from accidents and exposures. How many men have passed from this world because of exposures during intoxication! How many have lost their health and strength and become wretched sufferers during the remainder of a shortened existence! Besides, for days after indulgence in liquor the system is broken down, and the

individual less able to stand the fatigues, exposures, or wounds of the campaign.

If filtered or condensed water is not furnished to the troops, and spring water is not to be had, each soldier should fill his canteen over night with weak coffee or tea for the next day's march. This involves boiling, and the boiling destroys all dangerous substances in the water. Typhoid fever, cholera, and dysentery are caused by impure water.

All the belongings of the soldier should be taken under shelter at night to protect them from rain or heavy dews.

When not prevented by the military conditions, soldiers should sleep in their shirts and drawers, removing their shoes, socks, and other clothing.

In the morning wash the head, face, and neck with cold water. With the hair kept closely cut, this can be done even when the water supply is limited.

In hot climates, where marches are made, or other military work performed in the early morning or late in the evening, a sleep should be taken after the mid-day meal to make up for the shortened rest at night. Everyone, to keep in good condition, should have a total of eight hours' sleep in the twenty-four.

If the march is not to be resumed, the soldier should take the first opportunity of improving his sleeping accommodations by building a bunk, raised a foot and a half, or more, from the ground. This is of the first importance when the ground is damp. The poncho, or slicker, must be relied upon as a protection in marching camps, but when the camp is to be occupied for some days, bunks should be built.

In hot climates this raising of the bunks from the ground lessens the danger from malarial fevers.

CHAPTER XI.

Outlines of First Aid.

The object of any teaching upon first aid, or early assistance of the injured or sick, is not only to enable one person to help another, but in some measure to help himself. The purpose of these directions is to show how this may be done with simple means and by simple methods. It is a mistake to think that you must know many things to be helpful, but you must understand a few things clearly in order to assist the patient in the severer cases until he can be seen by the surgeon or those who are thoroughly trained. In ordinary cases what you can do may often be all that is necessary.

These short instructions are intended for application anywhere—at a military post, in camp, or under any circumstances of ordinary life; but as the wounds received in battle are the most important to the soldier, it is the more necessary that he should know what to expect there, and what to do for himself and others. Most of these wounds are made by the rifle ball, fewer by shell or shrapnel, while those made by the saber and bayonet come last in frequency.

WOUNDS.

When a ball enters or goes through the muscles or soft parts of the body alone, generally nothing need be done except to protect the wound or wounds with the contents of the first-aid packet, which all soldiers carry in time of war. The directions for the use of this packet are simple, and each packet contains them. In doing this always be careful of one thing—not to touch the wound with your fingers nor handle it in any way, for the dirt on your hands

is harmful, and you must disturb a wound as little as possible. Never wash the wound except under the orders of a medical officer. Be content to open the packet carefully, and, placing the small pads or compresses upon the wound or wounds, to wrap the binder or narrow bandage firmly about the parts, fastening with a safety-pin. This will hold the pads in place, and will help to stop the ordinary bleeding. The large or triangular bandage should be bound over this, or used as a sling if required. Generally



Fig 1.



Fig. 2.

SLINGS.

this is all that is necessary for the first treatment, and sometimes it is all that is needed for several days. The importance of the care with which this first dressing is made can not be too seriously insisted upon. It is better to leave a wound undressed than to dress it carelessly or ignorantly, so that the dressing must soon be removed.

BANDAGES AND SLINGS.

The triangular bandage, as furnished, is a piece of cotton cloth, measuring 4 feet 2 inches at the base and 2 feet 9 inches at the sides. It is intended to be folded in several ways and used as a bandage for various parts of the body, or to be used as a sling for the hand and forearm. The illustrations which are printed on the triangular bandage itself will show you its most common applications as a bandage or sling. In addition to the slings made with the triangular bandage, two forms of slings furnished by the ordinary clothing are here shown. (See Figs. 1 and 2, page 165.)

BLEEDING FROM WOUNDS.

Now and then a wound will bleed very freely, because a large blood-vessel has been wounded, and you must know how to stop the bleeding, or hemorrhage, as it is called. Remember that all wounds bleed a little, but that as a rule this bleeding will stop in a few minutes if the patient is quiet, and that the firm pressure of the pads and bandage will keep it controlled. Occasionally, but not often, something else must be done.

Looking upon the heart as a pump, you will understand that to stop the current of blood pumped through the arteries you must press upon the blood-vessel between the wound and the heart. This pressure stops the current of blood in the same way that you would stop the flow of water in a leaky rubber hose or tube by pressing upon it between the leak and the pump, or other source of power. The points or places where you can best do this for the different parts of the body are illustrated in the woodcuts. These points are chosen for pressure because the blood-vessels which you wish to control there lie over a bone against which effective pressure can be made.

LIBRARY
THE GENERAL SERVICE SCHOOLS
FORT LEAVENWORTH, KANSAS

POINTS FOR COMPRESSION WITH THUMB AND FINGERS.

The temporal artery is reached by pressure in front of the ear just above where the lower jaw can be felt working in its socket. A branch of this artery crosses the temple on a line from the upper border of the ear to above the eyebrow.



FIG. 3 CAROTID ARTERY, LEFT SIDE.



FIG. 4.
SUBCLAVIAN, RIGHT SIDE.

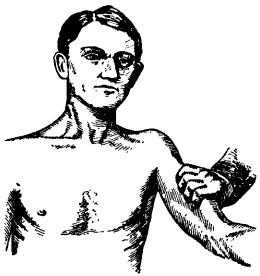


FIG. 5.
BRACHIAL, LEFT SIDE.

The carotid artery may be compressed by pressing the thumb or fingers deeply into the neck in front of the strongly marked muscle which reaches from behind the

ear to the upper part of the breast-bone. Fig. 3 (p. 167) shows pressure on the carotid of the left side.

In bleeding from wounds of the shoulder or armpit, the subclavian artery may be reached by pressing the thumb deeply into the hollow behind the middle of the collar-bone.

In bleeding from any part of the arm or hand, the brachial artery should be pressed outwards against the bone just behind the inner border of the large muscle of the arm.



FIG. 6.

In bleeding from the thigh, leg, or foot, press backward with the thumbs on the femoral artery at the middle of the groin where the artery passes over the bone. The point is a little higher up than that indicated in Fig. 6.

There are two other simple means for helping to stop bleeding—such as elevating or holding an arm or leg upright when these parts are wounded, and by applying cold to the wound; but you will find the compress and bandage, or the pressure made by your fingers, as described, to be most useful in the great majority of cases.

When, however, the bleeding continues after you have used these simpler means, or your fingers become tired in making the pressure, which they may do after ten or fifteen minutes, you will have to use what is called a "tourniquet," and generally will be obliged to improvise one out of material at hand. The principle of such a tourniquet is easily understood—a pad or compress placed on the line of the artery and a strap or band to go 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.

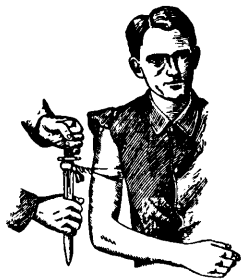


FIG. 8. IMPROVISED TOURNIQUET.

In the arm, apply the tourniquet over the point shown for compression by the fingers; in the thigh, 4 or 5 inches below the groin, as it can not be applied higher up. (See Fig. 6, p. 168.)

The pad or compress may be made of such an object as a cork, or smooth round stone wrapped in some material to make it less rough; the triangular bandage folded, a handkerchief or a cravat being used for the strap. After tying the band closely around the limb, any degree of pressure may be made by passing a stick, bayonet, or something of that kind of sufficient length, and twisting or turning it around so that the pad is pressed firmly in place. Turn the stick slowly and stop at once when the

blood ceases to flow, fixing the stick in place with another bandage. Remember that you may do harm in two ways in using this rough tourniquet. First, by bruising the flesh and muscles if you use too much force; and second, by keeping this pressure up too long and thus strangling the limb. It is a good rule to relax or ease up on this or any other tourniquet at the end of an hour, and allow it to remain loose, but in place, if no bleeding appears. By watching, you can tighten the tourniquet at any time if



FIG. 8. COMPRESSION OF LEFT FEMORAL.

necessary. Other tourniquets are in use, and for this purpose the elastic or rubber bandage is supplied in the Hospital Corps pouches.

FRACTURES.

The next injury you must know how to help is a broken bone. The lower extremities, thigh and leg, are more frequently wounded than the upper, arm and forearm; and so you will find more fractures of the thigh and leg bones than of the bones of the arm and forearm. You will usu-

ally know when one of these long bones is broken by the way the arm or leg is held, for the wounded man loses power of control over the limb, and it is no longer firm and straight. What you must do is much the same in all cases—straighten the limb gently, pulling upon the end of it firmly and quietly when this is necessary, and fix or retain it in position by such splints or other material as you may have. This is called "setting" the bone. If you have none of the splint material supplied, many common materials will do for immediate and temporary use—a shingle or piece of board, a carbine boot, a scabbard, a tin gutter or rain-spout cut and fitted to the limb, a bunch of twigs, etc. Whatever material you choose must be well



FIG 9.



FIG. 10.

padded upon the side next to the limb, and afterwards secured or bound firmly in place, care being taken never to place the bandage over the fracture, but always above and below it. Some of these methods are shown in the illustrations.

Fracture of the Arm.—Apply two splints, one in front, the other behind, if the lower part of the bone is broken; or to the inner and outer sides if the fracture is in the middle or upper part; support by sling, as in Fig. 9.

Fracture of the Forearm.—Place the forearm across the breast, thumb up, and apply a splint to the outer surface,

extending to the wrist—and to the inner surface, extending to the tips of the fingers; support by sling, as in Fig. 10.



FIG 11.

Fracture of the Thigh.—Apply a long splint, reaching from the armpit to beyond the foot, on the outside, and a short splint on the inside (Fig. 11). The military rifle may be used as an outside splint, but its application needs care. A blanket rolled into two rolls, forming a trough for the limb, is useful.

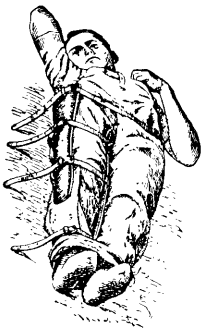


FIG. 12.

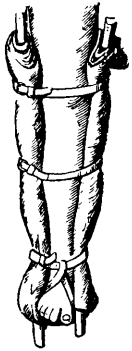


FIG. 13.

The carbine boot may be used to advantage in splinting fractures of the thigh and leg, as illustrated in Figs 12 and 13.

Fracture of the Leg.—Apply two splints, one on the outside, the other on the inside, of the limb. When both

ing better can be had, support may be given by a roll of clothing and two sticks, as shown in Fig. 13.

Many surgeons think that the method of fixing the wounded leg to its fellow, and of binding the arm to the body, is the best plan for the field, as the quickest and as serving the immediate purpose.



FIG. 15. FRACTURE OF LEFT LEG, SUPPORTED BY SOUND LEG.

The object of all this is to prevent, as far as possible, any motion of the broken bone, and so limit the injury to the neighboring muscles, and to lessen the pain.

Be very careful always to handle a broken limb gently. Do not turn or twist it more than is necessary to get it straight, but secure it quickly and firmly in one of the ways shown, and so make the patient comfortable for carriage to the dressing station or hospital. Time is not to be wasted in complicated dressings.

OTHER WOUNDS.

There are, of course, many wounds of the head, face, and of the body, but for the most part you will have little to do with these except to protect the wound itself with the contents of the first-aid packet, or, if bleeding makes it necessary, use, in addition, several of the packet compresses to control it. As the surface blood-vessels of the head and face lie over the bones and close to them, it will generally not be difficult to stop the bleeding by this means or by pressure with the fingers, as already shown. Remember, as you were told, to make the pressure between the heart and the bleeding point.

With wounds about the body, the chest, and abdomen you must not meddle, except to protect them, when possible without much handling, with the materials of the packet.

CAUTIONS.

You have already been warned to be gentle in the treatment of the wounded, and the necessity for not touching the wound must be always in your mind; but there are some other general directions which you will do well to remember:

1. Act quickly, but quietly.
2. Make the patient sit down or lie down.
3. See an injury clearly before treating it.
4. Do not remove more clothing than is necessary to examine the injury, and keep the patient warm with covering if needed. Always rip or, if you can not rip, cut the clothing from the injured part, and pull nothing off.
5. Give alcoholic stimulants cautiously and slowly, and only when necessary. Hot drinks will often suffice when obtainable.
6. Keep from the patient all persons not actually needed to help him.

OTHER ACCIDENTS AND INJURIES.

There are a few other conditions about which you should be informed, although they are not peculiar to military life, the first two only being related to wounds.

SHOCK.

By this term is meant a very severe physical and mental depression following extensive wounds, such as those produced by shell, and ordinary wounds in which the chest and abdomen are entered. You can hardly mistake this condition, for it resembles approaching death. If possible, the patient should not be moved, but kept in

position where found, warmed and carefully stimulated. This will be difficult, perhaps impossible, on the battlefield, but it should be attempted unless removal is unavoidable.

FAINTING.

This condition is generally the result of severe bleeding or exhaustion from fatigue. The patient should be laid upon his back, head lowered, arms by the side, feet extended, and should be carefully stimulated. This condition is rarely dangerous.

The other important accidents or conditions with which you may have to deal are drowning, sunstroke, heat exhaustion, burns, and freezing.

DROWNING.

Being under water for four or five minutes is generally fatal, but you should always make an effort to revive the apparently drowned unless it is known that the body has been under the water for a long time.



FIG. 15.

Remove patient's coat and shirt; lay him on his face; clasp hands under his belly and raise him to drain water from lungs; place him on his back, with a roll under his

shoulders; clean out his mouth and nose; pull his tongue forward and hold it with a dry handkerchief. To expand the chest, kneel at his head, grasp an arm just below the elbow with each hand; draw his arms outward and then upward to sides of the head (Fig. 15).

To drive air from the chest, bring patient's arms down along sides and front of chest, pressing on them (Fig. 16). Alternate these movements about fifteen times per minute until natural respiration begins, or for at least one



FIG. 16.

hour. Occasionally hold ammonia to his nose and slap his chest with a cold, wet cloth. While these movements are being made, remove his lower garments and dry the surface, rubbing toward the body. As soon as patient is able to swallow, give stimulants carefully and warm fluid nourishment.

SUNSTROKE.

Sunstroke or heatstroke occurs in persons exposed to high temperature, either in or out of the sun. The face is flushed, skin hot and dry, breathing labored, pulse rapid, heat of body great. The patient may be unconscious. Place him in the shade, loosen clothing, and try to lessen heat of body by cold applications to the head and surface generally.

The heat may also cause, especially when soldier is much fatigued, a form of exhaustion without insensibility. Rest on the back in the shade, with cold applications to the head, and a little aromatic spirits of ammonia are usually sufficient to relieve.

In rare cases, this exhaustion may go on to threatened collapse, with cold skin and extremities, pale face, and very weak pulse. Here alcoholic stimulants and heat to the body become necessary.

It is well to be warned that both sunstroke and heat exhaustion are common and severe among drinkers and the intemperate.

BURNS.

Do not pull the clothing from the burnt part, but rip or cut it off. Do not break the blisters, nor prick them, even if large. Protect a burn quickly with a mixture of equal parts of linseed or olive oil and lime water, if you have them; or with the plain oil, covering the whole with lint or cotton-wool. Put nothing on a burn that will be difficult to remove afterwards.

FREEZING AND FROSTBITE.

The part frozen, which looks white, or bluish white, and is cold, should be very slowly raised in temperature in a cool place, and never near a fire. Stimulants are to be given cautiously when the patient can swallow, and followed by small amounts of warm liquid nourishment. The object is to restore the circulation of the blood, and the natural warmth, gradually and not violently. Care and patience are necessary to do this.

TRANSPORTATION.

The carriage of patients, for moderate distances on or from the field, is best done with the service litter, and when that can not be procured, by some improvised sub-

stitute which secures the comfort and safety of the person disabled.

THE LITTER AND SLING.

The regulation hand litter consists of a canvas bed, 6 feet long and 22 inches wide, made fast to two poles 7½ feet long, and stretched by two jointed braces. The ends of the poles form the handles, 9 inches long, by which the litter is carried. The fixed iron legs are stirrup-shaped, 4 inches high and 1¾ inches wide. A strap is permanently fastened to the bottom of each pole near the legs. When the litter is open, each strap lies under the pole to which it is attached, its free end buttoned to a stud; when the litter is strapped, it is passed over the canvas and the free end buttoned to a stud under the opposite pole.

In moving the patient either with or without litter, every movement should be made deliberately and as gently as possible, having special care not to jar the injured part. The command, *Steady*, will be used to prevent undue haste or other irregular movements.

The loaded litter should never be lifted or lowered without orders.

The rear bearer should watch the movements of the front bearer and time his own by them, so as to insure ease and steadiness of action.

The number of steps per minute will depend on the weight carried and other conditions affecting each individual case.

The handles of the litter should be held in the hands at arm's length and supported by the slings. Only under the most exceptional conditions should the handles be supported on the shoulders.

The bearers should keep the litter level notwithstanding any unevenness of the ground.

In making ascents or descents, the rear or front handles should be raised to bring the litter to the proper level, Nos. 1 and 4 supporting the poles on their respective sides.

With only three bearers, the free bearer takes hold of the handle on his side.

As a rule, the patient should be carried on the litter feet foremost, but in going up hill his head should be in front; in case of fracture of the lower extremities, he is carried up hill feet foremost, and down hill head foremost; to prevent the weight of the body from pressing down on the injured part.

TO TRANSFER PATIENT FROM LITTER TO BED OR ANOTHER LITTER.

From Litter to Bed: With four or three bearers, the litter is placed at the foot of the bed, as nearly as possible in line with it; the bearers, taking their positions (all on one side if only three), lift the patient upon their knees, then, at the command, *Rise*, taking firm hold of him, they rise, and, moving cautiously by side-steps to the bedside, lower him upon the bed.

With two bearers, the patient is likewise first lifted upon their knees, then carried by side-steps to the bed.

From Litter to Litter: The patient is lifted upon the knees of the bearers, the litter removed, and replaced by the other litter.

IMPROVISATION OF LITTERS.

Many things can be used for this purpose:

Camp cots, window-shutters, doors, benches, boards, ladders, etc., properly padded.

Litters may be made with sacks or bags of any description, if large and strong enough, by ripping the bottoms and passing two poles through them and tying cross-pieces to the poles to keep them apart; two, or even three, sacks placed end to end on the same poles may be necessary to make a safe and comfortable litter.

Bedticks are used in the same way by slipping the poles through holes made by snipping off the four corners.

Pieces of matting, rug, or carpet, trimmed into shape, may be fastened to poles by tacks or twine.

Straw mats, leafy twigs, weeds, hay, straw, etc., covered or not with a blanket, will make a good bottom over a framework of poles and cross-sticks.

Better still is a litter with bottom of ropes or rawhide strips whose turns cross each other at close intervals.

But the usual military improvisation is by means of rifles and blankets.

THE TRAVOIS.

The travois is a vehicle intended for transporting the sick or wounded when the use of wheeled vehicles or other means of transportation is impracticable. It consists of a frame, having shafts, two side-poles, and two cross-bars, upon which a litter may be rested and partly suspended. When in use a horse or mule is attached to the shafts and pulls the vehicle, the poles of which drag on the ground. One pole is slightly shorter than the other, in order that in

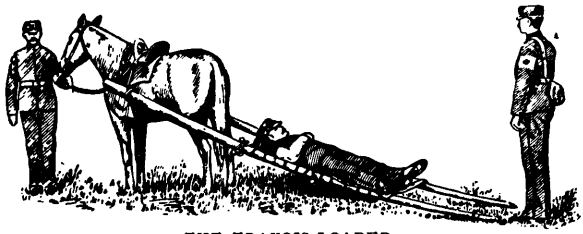


TRAVOIS AS USED BY THE SIOUX INDIANS.

passing an obstacle the shock may be received successively by each and the motion be equably distributed.

A travois may be improvised by cutting poles about 16 feet long and 2 inches in diameter at the small end. These poles are laid parallel to each other, large ends to the front, and 2½ feet apart; the small ends about 3 feet apart, and one of them projecting about 8 or 10 inches beyond the other. The poles are connected by a cross-bar about 6 feet from the front ends and another about 6 feet back of the first, each notched at its ends and securely lashed at the notches to the poles. Between the cross-pieces the lit-

ter bed, 6 feet long, is filled in with canvas, blanket, etc., securely fastened to the poles and cross-bars, or with rope, lariat, rawhide strips, etc., stretching obliquely from pole to pole in many turns, crossing each other to form the basis for a light mattress or improvised bed; or a litter may be made fast between the poles to answer the same



THE TRAVOIS LOADED.

purpose. The front ends of the poles are then securely fastened to the saddle of the animal. A breast-strap and traces should, if possible, be improvised and fitted to the horse. On the march, the bearers should be ready to lift the rear end of the travois when passing over obstacles, crossing streams, or going up hill.

THE TWO-HORSE LITTER.

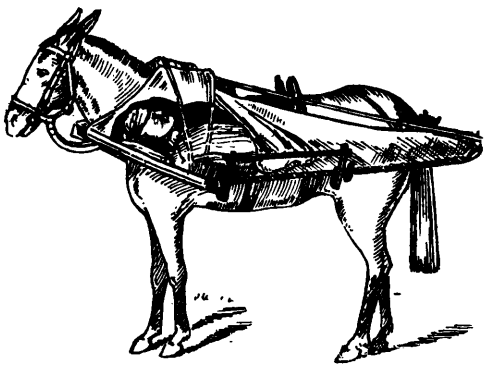
The two-horse litter consists of a litter with long handles used as shafts for carrying by two horses, or mules, one in front, the other in rear of the litter. It accommodates one recumbent patient. On a good trail it is preferable to the travois, as the patient lies in the horizontal position, and, in case of fractured limbs, they can easily be secured against disturbance. This litter may be improvised in the same manner as the travois, only the poles should be 16½ feet long, and the cross-bars forming the ends of the litter bed should be fastened 5 feet from the front and rear ends of the poles. The ends are made fast to the

saddles by notches, into which the fastening ropes are securely tied.

A patient is placed upon a horse litter after it is hitched and removed from it before it is unhitched, in the same general manner as when lowered upon or lifted from a bed or other litter.

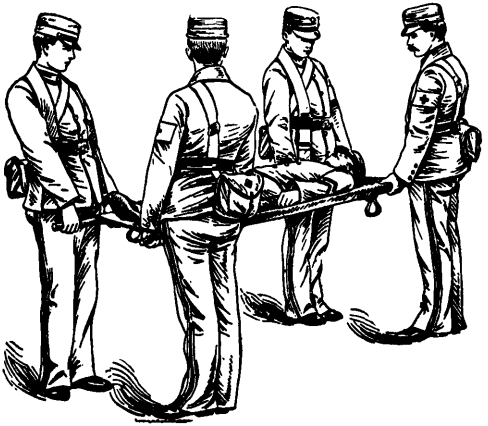
THE AMBULANCE.

The ambulance is a four-wheeled vehicle, drawn by two horses. It provides transportation for eight men sitting



HORSE LITTER.

or two recumbent on litters, or four sitting and one recumbent. It is fitted with four removable seats, which, when not used as such, are hung, two against each side, thus answering the purpose of cushions. The floor is 7½ feet long and 4 feet wide. Beneath the driver's seat is a box for the medical and surgical chests, and under the body are two water-tanks; outside, on each side, are two brackets upon which litters are carried. On the left side, in front, there is a socket for the ambulance flag, and underneath



LITTER LIFTED BY FOUR.



THE PATIENT LIFTED.

the footboard, on the left side, there is a drawer for tools, grooming implements, etc.

HOSPITAL TENT.

A hospital tent is 14 feet long, 15 feet wide, and 11 feet to ridge, the wall being 4½ feet high; it furnishes comfortable accommodations for six, and requires to pitch it a ridge-pole and two upright poles, seven long tent-pins on each side for the guy-ropes and two on each side for the long guys, eighteen in all. Twenty-four small pins are needed for the front, rear, and walls.

CHAPTER XII.

CAMPING.

In selecting the site for a camp, which is usually done by a staff officer sent ahead of a command, four important facts must be borne in mind. The camp must, (1) if possible, be near good water, and at the same time be in a dry, well-drained location; (2) it must be where fuel can be procured; (3) it must be near the road; and, if for a cavalry command, (4) it must be near grass or forage of some kind. In addition, the camp site should, if practicable, be sheltered from high winds. If in an enemy's country, the camp should, first of all, be where it can not be taken by surprise, while, at the same time, it should be screened from view.

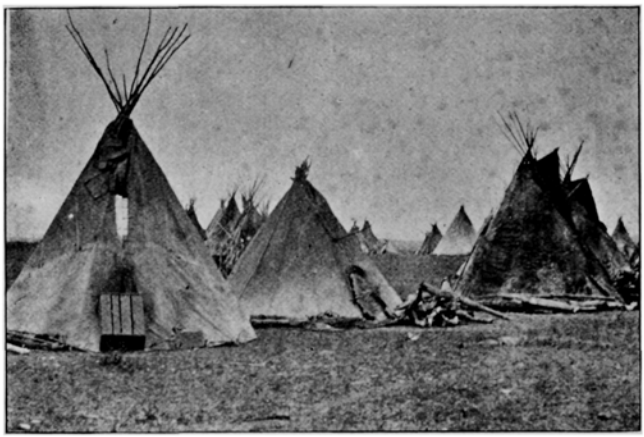
When troops are "in the field" and an enemy is near they usually *bivouac*—that is, do without tents, and are prepared to form line of battle at a moment's notice; sleeping without other shelter than is afforded by their blankets, although the shelter tent may be allowed in some campaigns.

In the campaigns in the Philippines the troops have adopted the *cantonment* system; that is, they have slept as a rule, in the nipa huts with which the country abounds. These huts are built of bamboo, with roofs made of nipa grass, and are by no means uncomfortable in a hot climate, the windows being very large and provided with sliding shutters, so arranged that nearly the whole side of a hut can be thrown open or closed at will. These huts are built on piles sunk into the wet ground, so that the living rooms are all high and dry, and reached by ladders.

When either tents or huts are used by troops in an enemy's country, a very vigilant and complete system of

outposts must be maintained. At the end of the day's march, before going into camp, if in an active campaign, the posting of these outposts is the first duty of the commanding officer.

Immediately after establishing a camp, even for a night, latrines or sinks should be dug, far enough from the tents to avoid any smell; these latrines should be cov-



INDIAN CAMP.

ered up every morning with fresh earth, and new ones should frequently be dug.

If water is scarce, a guard must be placed over it with strict orders to prevent wastage; if the water is in a running stream, all animals should be watered well below the camp in the direction the stream flows, and, if any washing is done in the stream, it should be permitted only *below* where the animals water. In a tropical climate all water intended for drinking by the men should first be

boiled, and, in general, no water should be drunk from a well until it has first been inspected by a medical officer, if possible.

No loafing should be allowed around the cook tents, and all meat and provisions should be kept under guard. If in a cavalry camp, the forage as well as the "picket-line" must be placed under guard.

When the nature of the service permits, cavalry horses and mules should be turned out to graze immediately on arriving in camp, if the daylight has several hours to run. The animals' backs and feet should first be carefully examined, and, if warm, they should be groomed for a few minutes.

It is important that the staff officer sent ahead to select the camp does so well in advance of the command, as nothing is more irritating to a weary and hungry command than to be kept waiting, at the end of a long march, while the selection of the camp is made—a selection which should have been decided upon hours before.

When other considerations permit, troops may sometimes find comfortable camping-grounds in woods or forests, as the trees afford shelter from the sun and wind. Such a camp would not be desirable in an enemy's country, for fear of surprise.

The tents used in the United States Service are the hospital tent, the wall tent, the conical wall tent, and the shelter tent. The latest improved form of the latter consists of two pieces which can be buttoned together and raised on twigs, or guns, so as to form a shelter for two men, each one of whom carries half the tent in his blanket-roll.

HOW TO PITCH AND STRIKE TENTS.

The following system of pitching and striking camp was prepared by a board of officers at Fort Leavenworth, Kansas. In its preparation the board consulted many

officers of experience, and many practical experiments were made with tents.

With very slight modifications, the same system can be used for an infantry or artillery command as well as for a squadron of cavalry. It is believed to be superior to any other system in use:

CAVALRY PITCHING AND STRIKING CAMP.

The squadron being in column of troops at full distance (each troop having 1 yard additional distance for each trooper temporarily absent), the troops are dressed to the right on the guidon and dismounted.

The guidon of each troop is planted midway between the two ranks of the troop, and marks the right of the picket-line.

The line is then stretched from the guidon to the left between the two ranks, and the horses tied on it about 1 yard apart. If the picket-line is not at hand, the place selected for the same is marked on the ground.

The guidon is then planted between the picket-line and the picket-line of the troop next in rear, so as to mark the front of the right of the line of tents. A saber is likewise placed towards the left flank to mark a second point on the line of the front of the tents.

WITH SHELTER TENT.

To Pitch Camp.

The squadron commander commands: 1. *With shelter tents*, 2. PITCH CAMP.

This command is repeated by troop commanders. Each trooper then secures a shelter tent half, five pins, and an upright pole.

The troopers fall in, squads in their proper places, on the guidon, facing the picket-line, in two ranks, with intervals of about 3 yards, and a distance of about 3 yards

between ranks. The first sergeant falls in on the right of the troop, and the non-commissioned officers in charge of squads on the right of their squads.

The guidon marks the right of the front rank. The right trooper of the second rank is 3 yards in rear of right trooper of the first rank.

The troop commander then aligns the two ranks, after which each trooper places his shelter tent half and tent-pins on the ground immediately in his front, the second rank also placing their poles upon the ground, each trooper of the first rank holding his upright pole (disjointed), one half in each hand.

The troop commander commands: 1. *Prove*, 2. DISTANCE.

The troopers raise their arms laterally until horizontal, the poles being in the extension of the arms. The troopers on the right and left of the rank do not raise the arm nearest the out flank. When the ends of the poles touch, the troopers have their intervals. The alignment is verified, and each trooper of the first rank sticks a pin between his feet, on a line with his toes. The lines of the tent-pins are then dressed. Each pin indicates the position of the front upright of a tent, which is placed against and in rear of the pin.

In pitching the tents each trooper of the first rank is assisted by the trooper of the second rank directly in his rear.

The tents when pitched are aligned by the first sergeant, if necessary.

Tent intervals should be about 2 feet; 3 yards between poles.

To Strike Tents.

When the general is sounded, each man hastens to the position he had when pitching tents, takes up the pins, and at the last note the tents are laid down to the right. The men then proceed to their saddles and pack them.

WITH CONICAL WALL TENT.

To Pitch Camp.

The squadron commander commands: 1. *With conical wall tents*, 2. PITCH CAMP.

This command is repeated by troop commanders.

One non-commissioned officer and four men pitch each tent, each squad furnishing the detail for its own tent.

The non-commissioned officers in charge of details cause them to count fours. Nos. 1 and 2 of each detail procure canvas; No. 3, tripod and pole; and No. 4, the tent-pins and two mauls or axes. They all unroll the tent and spread it out near where it is to be pitched, apex at the center.

The non-commissioned officer in charge of the detail for the first tent steps off 4 yards from the guidon on the left along the line established, and causes No. 1 to drive two pins 2 feet apart to mark the door of the tent, the first pin being about 4 yards from the guidon.

The second non-commissioned officer steps off 10 yards from the left door pin of the first tent and causes the foot-pins of the doorway of his tent to be established in the same manner as those of the first tent. Each non-commissioned officer in succession thus establishes the pins of his doorway, on the line prescribed, the intervals between doors being about 10 yards.

Each non-commissioned officer measures with the tent pole from the middle point between the door pins directly backwards, the far end of the spindle of the pole determining the center of the tent, which he causes No. 1 to mark with a pin. No. 4 places three pins near the center pin. No. 2 places the tripod opened out flat, center over the center pin. The men now take post—No. 2 in front, No. 3 in rear, No. 1 on the right, and No. 4 on the left of the tent. They work near these positions in pitching and striking tents.

All then bring the canvas over the tripod till its center comes to the center pin, and door at the front pins, when No. 2 slips the foot-stops at each side of the door over front pins, and places the door of the tent opposite the pins.

Nos. 1 and 4, commencing at the front and rear of tent respectively and working on the right and left sides of the tent, scatter the pins and pull out the eave-lines. Nos. 2 and 3 each take a maul or axe, and, commencing front and rear respectively, work on the right and left sides of the tent, driving the eave-line pins, placing them about 1 yard from the edge of the tent, in line with the seams.

The point for driving the eave-line pins may be found more accurately in the following manner: Measure and mark upon the hood lines from the hood in the direction of the free ends of the lines the distance 11 feet 3 inches —the radius of the circle of eave-line pins. Measure from the points thus determined towards the free ends 2 feet 11 inches—the interval between eave-line pins—and mark the same. By applying this measure, the distance of the eave-line pins from the center and their proper intervals may be determined.

As the pins are driven Nos. 1 and 4 place the loops of the eave-lines over them, respectively working on the right and left sides of the tent.

When the pins are set, Nos. 2 and 4 creep under the canvas, slightly raise the tent, and place the spindle of the pole through the plate, and, raising the pole, set it in the socket of the tripod. No. 3, having, from the outside, placed the hood over the spindle, enters the tent by creeping under it.

The non-commissioned officer places a maul or axe under the tent, and, standing near the door, causes the men within to raise the tent so that the door is kept directly opposite and above the door pins. No. 4 now leaves the tent. The non-commissioned officer enters and inspects and adjusts, when necessary, the tripod and pole,

and causes a pin to be driven against each leg of the tripod. Nos. 1 and 4 tighten the eave-lines; they then scatter the wall pins. Nos. 2 and 3 drive the wall pins, working as before, No. 2 toward the right rear, and No. 3 toward the left front. Nos. 1 and 4 fasten the hood-lines.

In pitching, as soon as any man has completed his assigned work, he assists others until all have finished.

The interval between the centers of tents should be about 34 feet—the front of seventeen men in rank.

To Strike Tents.

The general is sounded, or the major commands: 1. *Strike*, 2. TENTS.

The same detail is required as for pitching tents. All articles are removed from the tent and the door-cords tied. The wall pins are first removed, and then all the eave-line pins, except the quadrant pins.

No. 2 now enters the tent, removes the pins at the feet of the tripod, and remains in the tent until after it is lowered. The non-commissioned officer takes his post near the door. The loops of the quadrant lines are now removed from the pins, and the lines held until the last note of the general, or until the command, "*Tents*," when the tents are lowered to the indicated side. The canvas is then rolled up and tied by Nos. 1 and 2, while Nos. 3 and 4 fasten the tripod and pole together, and collect the pins.

Tents may be pitched and lowered, according to the principles prescribed, by details consisting of more than five men.

THE WALL TENT.

To Pitch Tent.

Four men are required to pitch a wall tent, and will be numbered from 1 to 4.

Nos. 1 and 2 will place the right pole so that the ends will rest where the front and rear uprights are to be, and pins will be driven at these points by Nos. 3 and 4. Nos.

1 and 2 then place one end of the ridge-pole at the front the front pin, and the other end to the right of, and perpendicular to, the line of the front and rear pins. From the outer end of the ridge-pole No. 2 takes one pace to the front, at which point a large pin will be driven. The ridge-pole will then be laid to the left of the front pin; one pace to the front will be taken by No. 2 from the outer end, and another large pin will be driven at that point.

Measurements will be made in the same way from the rear pin, except that the paces will be taken to the rear, the rear corner eave-line pins being thus established.

The four corner eave-lines are then attached to the pins, the ridge-pole is placed in position, the spindles of the uprights inserted in the ridge-pole, and the tent and fly adjusted on it. The tent is raised by Nos. 1 and 2 at the front upright, and by Nos. 3 and 4 at the rear upright pole. The tent is held in position by Nos. 1 and 3. Nos. 2 and 4 tighten up the eave-lines. The other pins are then driven by all four men. The eave-line pins are placed in line with the front and rear corner pins, and in the prolongation of the seams of the roof.

To Strike Tent.

Before or when the general sounds, all the pins except the four corner eave-line pins are taken up. No. 1 goes to the front upright pole, No. 2 to the rear upright pole, No. 3 to the front and No. 4 to the rear corner pegs on the side opposite to that toward which the tent is to fall. At the last note of the general the tent is laid on the ground.

THE COMMON TENT WITH WALL.

The common tent with wall is pitched in a manner similar to the pitching of the wall tent, except that an upright pole is used instead of the ridge-pole in determining the position of the eave-line pins, and a short pace (about 20 inches) is taken to the front.

The striking of this tent is the same as that of the wall tent.

When the officers' tents are to be upon the left flank, all alignments are made to the left.

The squadron may also camp in line, in which case the camp is formed on the same general principles.

When camp is established with shelter tents, and there is not room in line or column, the shelter tents may be pitched in two parallel lines. In this case the front of the second line of tents will be established about 3 yards in rear of the tents of the first line. The intervals between the tents in the two lines should be directly opposite, and each tent of the second line should be directly in rear of the corresponding tent of the first line.

MODEL CAMP FOR REGIMENT OF INFANTRY. THREE BATTALIONS.

CHAPTER XIII.

MARCHES.

The average rate of marching is about 15 or 20 miles a day for infantry and artillery and 25 miles for cavalry. When troops move in large bodies, particularly in the vicinity of the enemy, the march should be conducted in several columns, if roads permit, in order to diminish the depth of the column and to expedite the deployment into line of battle.

The order of march should state the time for each division to commence its movement and the points where the division, or its elements, should enter the main route, so as not to interfere with the march of the division preceding or following, and to prevent fatigue by keeping men under arms and horses saddled longer than necessary.

Companies usually alternate in leading the regiment, and, in like manner, regiments alternate in leading the brigade, and brigades in divisions, and divisions in corps. In large commands the roads, if possible, are left to the artillery and trains. The order of march should state whether the troops or trains should have the right of way.

Each brigade is provided with a corps of pioneers, under charge of a commissioned officer, to precede the column and remove obstacles and prepare the way.

Ordinarily, marches begin in the morning after early breakfast. Cavalry, as a rule, and horse artillery should not leave camp at a very early hour. Horses do most of their sleeping after midnight, and, if grazing is depended upon, they eat more freely during the early morning.

During the march no man is permitted to leave ranks without permission. It is the duty of all officers and noncommissioned officers to prevent straggling. The *provost*

guard of the brigade marches in rear of the brigade. Men who fall out of ranks are examined by the provost guard, and, if absent without authority, they are arrested and sent to their regiments.

Whenever delays occur in front, commands in column may stack arms or, if mounted, dismount. Every cause of delay should be investigated by commanding officers and remedied as speedily as possible.

The *infantry*, on first starting out in the morning, march for half or three-quarters of an hour at an easy gait; they then are halted for ten minutes to attend to calls of Nature, etc. Thereafter a halt for ten minutes is made at the end of each hour. In case of a long march, a halt of about half an hour may be allowed for lunch at mid-day, if practicable, near wood and water. In case of a forced march, double time should only be taken on favorable ground and for short periods, and men should not be exhausted just before going into battle.

With *cavalry* the march is habitually in column of fours, if the roads permit. When the road is very rough, or tracked, marching may be made more comfortable by allowing more than the usual interval between sets of fours. On dusty roads more than the regulation interval should be allowed between organizations, to lessen the discomfort. On starting from the camp, the first two miles should be made at an easy walk at a less rate than the regulation gait. There should be a halt of about fifteen minutes at the end of the first hour, to allow the men to reset their saddles and adjust equipments and attend to calls of Nature. Thereafter a halt of five minutes at the end of each hour may be made. At halts each horse should have his feet examined and saddles should be adjusted.

In cavalry marches too slow a rate is to be avoided, as the time that weight is on a horse's back is to be lessened as much as possible.

The rate of march in cavalry is to be governed by circumstances, such as condition of animals, roads, etc., but

many officers favor an average, after the first hour, of 5 miles an hour, alternating the walk and trot, and occasionally dismounting to lead, which should always be done on steep hills, especially when descending. The walk, except the first half hour, should be at the rate of 4 miles and the trot at the rate of 6½ miles an hour. The last two miles of a day's march should be made at a walk, to enable the horses to cool off.

It is extremely fatiguing for cavalry and horse artillery to march as slowly as does infantry; therefore, if possible, the same roads should not be used with the infantry.

Cavalry, in urgent cases, can march for from three to five days at the rate of 50 miles in twenty-four hours. A single march of not over 100 miles can be accomplished in twenty-four to thirty-six hours. The manner of marching, in making forced or rapid marches, must depend on the total distance to be made. If the distance to be covered is more than 150 miles, the forced march should commence at a rate of not to exceed 50 miles a day, and, as the end of the whole distance approaches, the rate per day must gradually be reduced.

During long marches horses should occasionally be unsaddled during the halts and permitted to roll or lie down. Horses should never be watered when very warm when the march is to be immediately resumed; they may be fed hay when warm, but never grain, and should be rubbed down immediately after the saddles are removed for the day.

Long marches or expeditions should be begun at a moderate gait, especially with horses new to the service. The care of horses on the march is one of the most important duties of the mounted officer, and many horses that would otherwise soon give out and be lost to the service may, by care and attention on the march, be preserved in good condition.

When streams have to be crossed or forded on the march, bridges and fords should first be carefully exam-

ined by a few men. When streams are frozen, the rule is that ice 3 or 4 inches thick will bear infantry, and ice 6 inches thick will bear heavy guns. Ice 4½ inches thick will bear cavalry.

A camp-ground should always be selected sometime *before* the arrival of a command after a day's march. This is usually done by having a staff officer start out some hours ahead of the command to select the camp-ground.

The discipline and efficiency of a command are, in a large degree, indicated by the manner in which its marches are performed.

CHAPTER XIV.

LINES AND BASES OF OPERATIONS.

[Adapted from "Hamley's Operations of War."]

Part I.

THE NECESSITY FOR A BASE.

No kind of history so fascinates mankind as the history of wars. No kind of record other than sacred appeals at once to the sympathies of so wide an audience. Great social, political, or philosophical enterprises may produce more extensive results than can follow from the conflicts of arms, but a certain amount of acquired knowledge is necessary in order to render them intelligible. The contests of philosophy, of art, or of statesmanship demand from the spectator some of the power which is displayed by the disputants; but anybody can watch with interest the game of war, for all can feel how earnest is the struggle where individuals stake their lives and nations their territories.

But before entering upon an actual narrative of the operations of armies, it is necessary to know the conditions under which armies operate. We must understand the primary laws of the game before we can begin to follow its progress. Modern armies have gradually become very complex machines, and increased complexity has brought with it increased stringency of the conditions which govern their movements.

It is probably unnecessary to insist on the fact that organization and discipline confer vast advantages on an armed force. It is needless to tell anyone that an organized body of men, amenable to the laws of discipline, accustomed to act together, mutually reliant, trained to

perform in unison the movements best suited to the march and the battle, and directed absolutely at the will of the practiced commander, is an engine of war far more formidable than any assemblage of individuals, however numerous and however skilled in the use of their weapons, but in whom this concerted action is lacking. The fate of the enormous levies of men raised from the French population in 1870–71, after the destruction of the regular armies, has convinced all who needed convincing how futile is the attempt to meet discipline with numbers. Discipline, in fact, is a union of very different qualities, each of which is an important element in war.

The advantages of organization and discipline are great, but they have not been obtained except under strict conditions. In saying we have a powerful engine in a disciplined army, it must be admitted also that its operations are restricted by certain laws, and these laws are less stringent when armies were less organized—perhaps, indeed, in proportion to their degree of organization. In the wars of the Middle Ages no great amount of preparation was demanded for a military expedition. Feudal chiefs summoned their retainers to the field from the farm or workshop. Peasants and citizens, trained by the frequent conflicts in the use of their weapons, took up the bow or the pike and became at once soldiers. An invading army, composed of such material, descended on the enemy's territory like a swarm of locusts, spreading itself to pillage, to devastate, and to subsist. For a special purpose, to meet the enemy or to attack a town, it could assemble, living on the spoils it had collected. But the necessity of procuring fresh supplies would soon force it to spread again. This, however, it could safely do, so long as the enemy was under the same necessities as itself. Had it been opposed to a force that was always ready to move and to fight in compact order, it would, in its scattered condition, have fallen an easy prey. But in those days the existence of such a force was impossible. The most

powerful feudal sovereign could only make war with the assistance of people of consideration and their retainers. The revenues of the crown would have been insufficient in any country for the maintenance of great standing armies. The taxation of the people for the constant supply of troops was impracticable under the feudal system. In those days the invader counted on living at the cost of the invaded territory; the defender was often of necessity driven to do likewise, and the unhappy district that was the scene of operations suffered from friend as well as foe. When Edward the Black Prince made the incursion into France which ended with the victory of Poitiers, his troops subsisted on the pillage of the country. They found the province of Auvergne, which they had overrun, very rich, and all things in great abundance; but they would not stop there, as they were desirous of combatting their enemies. They burnt and destroyed all the countries they passed through.

It is clear that the Prince had no magazines (bases of supplies), but was dependent upon the country he marched through; and as soon as the enemy drove his army together, it could no longer find means of subsistence. Such a system of supplying the needs of an army is practicable only so long as it is undisturbed in its depredations by an opposing force. Froissart, in his Chronicles, states that prior to one of the great invasions of France by Edward III. of England, the country had been already so much pillaged and destroyed by previous invasions, and the ground had not been cultivated for three years, and famine conditions prevailed, so that the English brought in their train six thousand wagons, "stretching," says Froissart, "upwards of two leagues, and laden with tents, pavilions, mills and forges to grind their corn and make shoes for their horses." This immense train was intended to supply the army while passing through the desert which war had created. But, on reaching a more productive region, the army "overran the country to the right and

left, and took provisons wherever they could lay their hands on them."

The picture presented by the army of the feudal period is that of an assemblage of knights, barons, and squires, with their retainers, all vassals or auxiliaries of the belligerent powers, who made the quarrel of kings the pretext for enriching themselves by plunder. While moving in the enemy's territory they occupied a great extent of it, pillaging villages and farms, sacking cities, and ransoming captives of consideration. Leaders were esteemed according to their inventiveness and skill in making sudden incursions, in attacking castles, devising stratagems, and drawing up their motley forces in order of battle before charging into the mêlée at their head. If a rich town or a district was within reach and unprotected, these were sufficient reasons for leading the army thither. The idea of a highly organized force making several long marches in succession with the utmost rapidity towards certain points, holding itself always prepared for immediate battle, and aiming to bring the adversary to terms not by ravaging his territory, but by defeating his armies, and maneuvering wherever possible against his communication as his most vital points, could not possibly enter the mind of a sovereign or leader of those days, since the first conditions of such a mode of warfare were wanting. The collection of all kinds of stores and munition necessary to an army, and the incessant forwarding of these to great distances throughout a long campaign, was a task beyond the resources of the wealthiest monarch. All he could do was to raise, by mortgaging royal revenues to territories, by loans, or by such exaction as his subjects could be induced to submit to, the sums necessary to assemble the army and set it in motion, after which the war was left to maintain itself.

But, in such a time, the change in the features of a country consequent on the advance of civilization affected the conditions of war. At all periods the population of dis-

tricts forming frontiers of bellicose neighbors had been accustomed to seek shelter from the first rush of an invasion in the great towns, which were fortified to resist attack. So long as artillery was ineffective and hard to transport, a strong wall was sufficient for defense; but as roads improved with increasing commerce, and a formidable artillery was enabled to accompany the army, the art of fortification grew in importance. Great engineers appeared, who turned cities into huge fortresses, and as these strongholds were certain to be at the meeting of great roads, they became obstacles in the way of an invader that he could not neglect. They were very different from the castles of the ancient barons, which, though they might be strong for defense by reason of their position, yet were for that very reason less useful as obstacles to an enemy's progress, since the loftier the hill on which they were perched, the less likely was it that they should command a good road. They differed also from the walled towns of the Middle Ages, inasmuch as they were calculated to resist, for a long siege, improved artillery. These fortresses sprang up all over Europe. The richer and more populous the territory and the more industrious the inhabitants, the more numerous were the towns and the greater necessity for fortifying them.

From the opposite banks of the Rhine great fortresses watched each other, and on the open frontier of France and Belgium they were thickly set. An advancing army, dependent on its communications, could neither pass by one of these obstacles nor easily take it. Therefore, in the wars of Louis XIV. whole armies were for months occupied in besieging towns, and Marlborough's battles bear but a small proportion to the number of his sieges. Tertories were thus captured and recaptured bit by bit; and the conquest of a parish, a country, even a town, was sufficient object and end for a campaign, and great battles were often fought to cover or raise a siege. It was not, then, because the leaders of those days were less enter-

prising than their successors, but because they fought under different conditions, that their actions were striking and decisive.

As the military machine grew more manageable, and the means of supplying it improved with increasing wealth and population, enterprises became more extensive and operations were systematic. It was discovered that it was more profitable to occupy an enemy's territory than to devastate and plunder it, and that the readiest way to bring him to terms was to beat his armies. Improved roads and vehicles enabled large bodies to move more freely; improved cultivation gave them more abundant means of subsistence. Fortresses were watched, or "masked" by detachments; and Frederick and Napoleon, preferring maneuvers in which they were confident of their skill to the tedious process of siege, moved deep into the heart of the theater of war.

As the powers of an army on a distant enterprise depended on its united and combined action, it was necessary to its full efficiency that it should be able to assemble at any time. It must, therefore, be accompanied by everything requisite to its maintenance. Food, ammunition, clothing, medicine, and recruits must find free access to it, and the stream of these supplies must be unceasing. The first preparation for war was the establishment of great dépôts and magazines, and these were collected in places which were secure against the enemy's attacks, either by natural defenses or artificial fortifications. Frontier lines strengthened for the defense of countries from the aggregation of their neighbors, of course, afforded the most favorable points for the establishment of the magazines destined to supply the army of invasion. Thus, if France were at war with Germany, the Rhine afforded a natural screen, behind which might be collected the necessary stores; and when this barrier was further strengthened by a line of fortresses, a French army could operate in Germany in full confidence that the

supplies necessary for its maintenance were safe, and that, if compelled to retreat, it would find amidst the fortified dépôts, both subsistence and protection from disaster. Or, again, if Italy were to be the scene of French operations, behind the barrier of the Alps must be collected the vast stores on which the army would rely.

Sending forth an army is like sending forth a city equal to the capital of the State, transporting it, with all its means of food and shelter, from place to place at uncertain times and in unforeseen directions, and leaving it all the time dependent on the territory from which it set forth for the maintenance of its numbers and the supply of its daily wants.

The Duke of Wellington's correspondence after the battle of Talavera sets in the strongest possible light the essential importance of magazines and the consequences of operating without them. The English Army, leaving its dépôts in Portugal, had moved into the valley of the Tagus to coöperate with the Spanish forces, which were opposing the French corps in front of Madrid. The junction of the Allies effected, they had engaged and beaten the enemy at Talavera. As the commander of an auxiliary force, acting in conjunction with a native army, in a country which, though sterile in parts, yet afforded ample supplies, Wellington could not have anticipated any difficulty in procuring provisions, for which full value would have readily been paid; and he had accordingly entered Spain relying on the promises of the Spanish Government to provide ample subsistence and means of transport for his army. Yet, victorious as he was, he speedily found that army crippled for want of food and forage; and, after numerous remonstrances, he was driven to execute what he had frequently threatened, and march his troops back to Portugal. "A starving army," he said to his brother, in narrating the privations of his troops, "is actually worse than none. The soldiers lose their discipline and spirit; they plunder even in the presence of

their officers. The officers are discontented and almost as bad as the men; and with the army which a fortnight ago beat double their numbers, I should now hesitate to meet a French corps of half their strength."

The march of Sherman across Georgia in 1864 is neither a novelty of war nor a refutation of what had been said respecting the necessity of a secure base. Like the Black Prince, he marched through the unprotected country of an enemy whom he sought to injure by ravaging the district which he traversed; and, like Edward III., he carried with him a great train of supplies, not because the country did not afford them, but because the appearance of a hostile force, or of a formidable obstacle of any kind, might, by obliging him to assemble his army, deprive him for a time of the power to subsist by plunder. But the object and duration of the movement was limited and definite. A certain extent of the country was to be traversed with the calculated certainty of reopening communications beyond. There is evidently nothing in the operation which can modify existing theories, for it remains as impracticable as before to explain or to conceive how sustained operations can be conducted in the face of an enemy without a secure starting-point.

Part II.

GOOD ROADS NECESSARY FOR THE OPERATION OF A MODERN ARMY.

The fortified line of magazines constituting the base being formed, it is indispensable to a sustained and dubious enterprise that good roads should exist between the magazines and the army as it moves away from its base. In mountainous districts, where the roads are so rugged and steep as to be unfit for wheeled vehicles, the necessary supplies must be carried on pack-horses or mules. But the quantity which an animal can draw is so much more

than it can carry that the number of animals and extent of road which they occupy must be immensely increased. It is therefore very difficult, almost impossible, to supply a very large army under such circumstances for a long campaign; and roads practicable for carriages are indispensable to all operations, except those which aim at attaining their results in a brief and definite time. And not only must the roads be good in the ordinary sense, but they must be great main arteries of the region, solidly constructed. Anybody who lives in the neighborhood of a newly established brick-field will see how quickly the parish roads are broken and wrought into hollows by the passage of the heavy brick carts. The trains that follow the army, laden as they are with ammunition, pontoons, platforms for guns, siege artillery, and other ponderous materials, soon destroy all but the best roads. In order, then, that the enormous streams of supply may be uninterrupted, it is necessary that the roads be in the best condition, like the great paved *chaussées* of the Continent. The proof of this is found in the difficulties under which armies begin to labor directly they are thrown on bad roads for their supplies. English experience in the Crimea shows that even seven miles of soft soil interposed in winter between an army and its dépôts may be almost a fatal obstacle; and General McClellan, in his report of his campaign in the Yorktown Peninsula, tells us: "On the 15th and 16th the divisions of Franklin, Smith, and Potter were with great difficulty moved to Whitehouse, five miles in advance; so bad were the roads that the train of one of these divisions required thirty-six hours to pass over this short distance." And again, speaking of the movements from the York River to Williamsburg, he says: "The supply-train had been forced out of the roads to allow the troops and artillery to pass to the front, and the roads were now in such a condition after thirty-six hours' continuous rain that it was almost impossible to pass even empty wagons over them."

But it is not only on account of the supplies that great armies operate by great roads. It is also because the march of the troops and artillery becomes so slow and uncertain that all the calculations on which a general bases a combined operation are liable to falsify, and the rapidity necessary for a movement intended to surprise or foil an adversary is lost, so that the design is foreseen and frustrated by the enemy. An example of the different rate at which troops move over a good and a bad road is afforded by the campaign of Waterloo. Napoleon followed Wellington, and Grouchy followed Blücher; both quitted the field of Ligny on the afternoon of the 17th of June. The Emperor, marching by the great paved *chaussées* of Namur and of Brussels, assembled his army that night in the position of Waterloo, seventeen miles from Ligny. Grouchy, moving by country roads, had great difficulty in bringing his 30,000 men to Gembloux, five miles from Ligny, by ten o'clock the same night. And, to quote a more modern instance, General McClellan says: "On the 14th of March a reconnaissance of a large body of cavalry with some infantry, under the command of General Stoneman, was sent along the Alexandria & Orange Railroad to determine the position of the enemy and, if possible, force his rear across the Rappahannock; but the roads were in such a condition that, finding it impossible to subsist his men, General Stoneman was forced to return."

While, however, impressing on the reader the absolute necessity of good roads for the sustained operations of a campaign, it is not asserted that considerable bodies of troops never move by indifferent roads. Many instances of the contrary would appear in short courses of military reading. Thus, Napoleon carried 40,000 men from Switzerland to Italy over the St. Bernard; but it was for the sake of obtaining by surprise the advantage of position over the Austrians, and that position obtained, he had the great roads of Italy for his future movements, and the territory between the Alps and the Po, friendly to him

and hostile to the Austrians, was available for supplies. Again, Wellington following the French in 1813 on the great road of Valladolid and Burgos, quitted it to throw his army across difficult mountain paths; but he did so for the purpose of shifting his base from Portugal to the northern parts of Spain, with which he presently opened new communications. And McClellan, crossing the Potomac after Lee, subsequent to the battle of Antietam, moved by the road from Harper's Ferry along the foot of the Blue Ridge, which is hilly and broken; but as soon as he reached the Manassas Railroad he came into direct communication by that railway with Washington. Thus each of these movements was of brief duration, and made with the definite object of immediately attaining a new and more convenient communication with the dépôt of supplies.

Whatever advantage good roads can confer must be immensely increased when railroads are employed. In using them, the first step must be the collection of the rolling-stock on the required points of the different lines.

The student, then, should acquire the habit of thinking of an army not as capable of being moved anywhere in the theater of war, but as dependent for its efficiency on a line connecting it with points in its rear, the line being a good and practicable road or roads, and the points secure magazines.

The next step is to consider the army not, as generally, collected on the main road, but as distributed in parts on several roads.

When hostilities begin between nations, one of them, almost at the outset, finds reason for standing on the defensive and allows the other to make the attack. Declaring war against Napoleon in 1815, the Allies were induced of necessity to await the attack, because their forces, greatly superior in numbers, were scattered over an immense space. Only Wellington's and Blücher's armies were ready to meet the first onset. They were in

Belgium, and three great roads cross the frontier leading from French fortresses upon Brussels, by either of which Napoleon might advance, after concentrating on it, behind the scene of the fortresses, his whole army; therefore Wellington and Blücher were forced to guard all these avenues to Brussels by placing on them portions of their forces. But these portions were liable, each or any, to be attacked by the whole French Army—in fact, only one Prussian corps was assembled at the point where Napoleon's whole force broke in. Under such circumstances, all which that corps or any of those fractions of the Allied Army could do was to take advantage of the fact that the heads only of the great French columns as they advanced on the road were available for immediate attack, and to dispute the advance till the French front should so grow in extent by accession from the rear as to be irresistible, and then to withdraw with as good a face as could be maintained. In this way time would be gained for the concentration of the remainder of the Allies upon the threatened line; whereas, had any line been entirely neglected, the enemy, being unopposed there, might be in Brussels before any adequate force could have time to interpose. It is very easy to understand, therefore, why the army on the defensive is spread over a large front, on lines which radiate from the point they seek to cover, like the spokes of the wheel from the hub.

It is not at first so manifest why an invading army operates by many roads, but a brief calculation will suffice to show the reason.

In round numbers, 30,000 infantry on the march extend over about 5 miles of road; adding from one-fourth to one-third for lengthening out, they would extend over 7 miles; 60 guns with their attendant carriages occupy 2½ miles; 6,000 cavalry (4 abreast), allowing 12 feet of space longitudinally to each horse, fully 4 miles.

If Napoleon's army had entered Belgium by one road instead of three, it would have extended as follows:

90,000 infantry	21 miles
20,000 cavalry	14 miles
350 guns, etc	14 miles
Total	49 miles

irrespective of baggage or stores of any describtion. According to a recent French authority, by using on very wide roads what the French term the double formation, the length of the column would be reduced by three-tenths, which, in the present example, would leave 34 miles. Therefore, at the best, the head of the column must have been, on a single road, marching two days before the rear could have quitted the place of rendezvous. An army moving thus would manifestly lay itself open to defeat by a very inferior force, which, by enveloping the head of the column, might inflict a number of crushing blows before the rear could arrive on the point of action. And, in fact, though Napoleon's columns moved by three roads, the division in the rear, moving from the same bivouacs as those in front, failed to deploy on the field of Ligny till the afternoon of the following day.

When General McClellan moved from Washington to attack the Confederates, who, having defeated Poe, had invaded Maryland, he thus replied to some comments on his method of advancing, addressed to him by the Commander-in-chief: "If," he said, "I had marched the entire army (about 100,000 men), in one column along the banks of the river instead of upon five different roads, the column with its trains, would have extended over 50 miles, and the enemy might have defeated the advance before the rear could have reached the scene of action."

It was found in the War of 1866 that a Prussian army corps, consisting of 42,512 men, 13,802 horses, 90 guns, and 1,385 carriages of different kinds, took up on the

march about 27 miles of roadway, 18 miles being occupied by the combatant forces and 9 miles by the train.

Now we will suppose, on the other hand, the extreme case that an army, on quitting its bivouacs, could find separate roads for every brigade, all converging on the point where an engagement was expected, and all sufficiently near each other for constant communications and concert. The whole army would then be assembled simultaneously on the space to be occupied by the line of battle. In no case, of course (except in limited marches on great plains), are such facilities to be expected, but the illustration will serve to show why an army always marches by as many roads leading to its destination as are sufficiently near to each other to admit a mutual support.

As the different portions of an army on the defensive must unite as quickly as possible on the line by which the line of the enemy advances, it is, of course, indispensable that there should be good intercommunication or lateral roads by which they can approach each other. And these should be not coincident with the front of the army, but in the rear of it; otherwise, if a division or corps were pushed back by the rapid advance of the enemy, the line of intercommunication would be broken.

Also, if the army were advancing towards the enemy, and using for the sake of facility several adjacent roads, these, however near, should not be separated by any impassable obstacles, such as swamps, a mountain ridge, or a river without fords or bridges; otherwise, one portion of the army might be spectators of an attack upon the rest, as happened at Rivoli, where an Austrian column, moving on the left of the Adige, witnessed the defeat of the army on the other bank; and as occurred more notably in 1796, when the Austrians, advancing into Italy on both sides of the lake of Garda, were beaten in succession by the same French army.

When armies approaching each other are still several marches away, as may happen at the outset of the cam-

paign, it is not, of course, necessary that the various columns, as they quit their own frontier, should be in supporting distance. Moreover, it then becomes necessary to shorten as much as possible the distance between the rear and head of the column, widening its front. A narrator of the Waterloo campaign says that when Wellington retired from Quatre Bras upon Waterloo, his troops moved in the open fields on each side, leaving the road for the artillery and trains. But before the French, following him, passed Genappe, a violent rain had rendered the fields impassable; consequently their troops were restricted to the road, and the column was lengthened; entailing these consequences, that Wellington's compact march was beyond the pressure from the enemy, and that, while the troops filed into their destined positions in the line, the rearmost French divisions did not reach the field till long after dark.

It would be a mistake to suppose that the preceding matter of this chapter depends for its truth on the conditions that it must be applied to regions where railroads do not exist. The districts, even of Europe, are few where existing railroads would leave great armies in any considerable degree independent of the ordinary roads; and, in fact, the very orders just quoted were given in a theater of war traversed by railroads. But whether the communications of this kind are few or many, one fact alone suffices to prove the point, which is, that an army advancing, or intending to advance, could never trust to railroads which are in the sphere of the enemy's operations, even to the most extended lines of its outposts, since a few men can, in a very short time, render a railway temporarily unserviceable. In July, 1870, a few Prussian lancers, crossing into French territory, blew up a viaduct of railway by which the communications between the parts of the French Army were chiefly maintained. It was partly due to this cause that McMahon did not receive at Wörth the support on which he had relied when he stood to accept battle

there. There will always, therefore, be considerable space between the fronts of the armies where only the ordinary road can be relied on for maneuvering; and it is only in an inconsiderable degree, and for partial movements, that railways can with confidence be resorted to when opposing forces are so near that collision becomes imminent.

Part III.

SUPPLY OF ARMIES AT A DISTANCE FROM THEIR BASE.

In order to complete the general idea of the conditions under which armies operate, it only remains to consider the manner in which they are supplied when at a distance from their original base, frontier, or starting-point. For although a large force might be supplied with sufficient ease and certainty when separated from its magazines by only 20 or 30 miles of good roads, yet it is evident that, with every march in advance, the stream of supplies would become more and more precarious, till at length the commander would be unable to base any calculations for further movements on so dubious a foundation.

In days when armies subsisted of necessity on the pillage of the country they made war in, the rigors of war were inseparable from the fact of war. The theater of hostilities, like the English lines of invasion in France, like parts of Germany in the Thirty-Years War, became a hell, the soldiers demons.

With the establishment of standing armies and the necessity for supporting them from their own resources, these horrors, in great measure, ceased. They were no longer inflicted by an army on its own or a friendly territory, but were used as a weapon against the enemy. But enough of the former spirit of cruelty still identified itself with war to cause commanders of high honor and reputation to commit deeds which, from our point of view, must always stain their names. Turenne ravaged the beautiful

cultivated territory known as the Palatinate; and Marlborough, after marching from Flanders across Germany, supplied by the contributions of friendly States, resorted, on entering Bavaria, to what he called "military execution," or systematic devastation, as a means of detaching the Elector from the interests of France by compelling him to witness the suffering of his subjects and the ravaging of his dominions.

A little later than this, when discipline grew into paramount importance, when movements were quicker, and when armies in the presence of a ready foe found that they must always be prepared to fight, the question of supplies came to be a still more considerable element of war. A curious calculation exists, made by Tempelhoff, a Prussian general, the historian of Frederick's wars, which shows how rigorously the operations of his master were fettered by the necessity of providing assured subsistence for an army.

"A hundred thousand men," he says, "consume daily 150,000 pounds of flour, equal to 2,000,000 pounds of bread."

Bread and forage are seldom to be had in sufficient quantities on the spot; hence magazines are established along the line of operation.

As at this time (early in the eighteenth century) an army, instead of being an assemblage of bands or companies, each under its immediate leader, had become an integer which did not admit of ready separation into parts; so the system of supply had also been highly organized in order to maintain this somewhat cumbrous machine in working order. Communications, to maneuver against which scarcely entered into the combinations of the generals of the preceding age, had now come to be of the first importance, and the capture of a great magazine or of a great convoy was a matter serious enough to derange a whole plan of campaign.

This ultra-methodical method of campaigning continued till the time of the French Revolution (1793). Confronting all Europe, and destitute of all material of war except men, France poured forth armies half clad, half fed, half armed, but full of valor, intelligence, and zeal. Old traditions of methodical war, where troops slept under tents and were fed from magazines, were of no value to armies that possessed neither tents nor magazines. A new organization became necessary to meet these new conditions. An army, no longer itself an integer, was resolved into divisions, each complete in itself in all arms, and capable of either fighting alone or of taking its place readily in line of battle. The amount of independence thus gained rendered the task of supplying them comparatively easy. Alike in the plains of Flanders and on the summits of the Alps, the soldiers of the Republic learned to bivouac and to maintain themselves in the country they made war in. What they lost in method they gained in mobility; taught by always present and always pressing necessity, they acquired the secret of spreading in order to subsist; but, being opposed to disciplined troops, they were forced also to preserve a due facility of reassembling for battle. They were at once the most accomplished of marauders and the most intelligent of soldiers. And it was this combination of seeming adverse qualities that distinguished them from the armies of the Middle Ages, where the troops were indeed skillful in the art of plundering, but had neither the discipline nor the intelligence necessary for forming out of the scattered units a combined force that could oppose a regular army.

Formed by this rough training, the French Army became an instrument in the hands of the most subtle, inventive, and audacious leader in the world. The old system of Frederick met the new system of Napoleon, and was shattered to pieces. And at the root of this new system lay the new method of procuring supplies

But it would be a great mistake to suppose that Napoleon, when he became both chief of the state and head of the army, led on to conquest merely a horde of plunderers, who lived from hand to mouth. No general was ever more careful in accumulating great magazines and in protecting his communications. All his precepts prove that he felt more strongly even than the strictest generals of the old school the necessity of holding fast to the links which united him to his base. After Jena, for instance, when he had broken in a single day the power of Prussia, his first thought, after providing for the pursuit of the defeated enemy, was to establish a fresh and shorter line of communications with France, and to station on it great hospitals and dépôts for stores.

When an army enters an enemy's territory, the first magazines are formed (generally by contractors), on its own frontiers. From thence their contents are transmitted (if possible, by rail) to within a safe distance of the army. Some, at least, of the most advanced magazines are formed whenever practicable by obtaining in the enemy's territory both supplies and horses and wagons necessary to collect them. As the army advances others are established beyond these, the official in charge of each magazine being responsible that it is always kept full. But it is necessary that the stores so collected be distributed to the troops; and, for the purpose of maintaining constant communication between them and the magaiznes, large supply columns are attached to each army corps.

In order to preserve a sufficient independence of magazines and trains for the execution of sudden maneuvers, the German soldiers carry in their knapsacks rations for three days, made up in packages, which are only to be opened when all other supplies fail; in addition to these, at least one ration of the ordinary kind, for immediate consumption, is commonly carried in the knapsack.

Two armies are *not* like two fencers in an arena, who may shift their ground to all points of the compass; but

rather resemble two swordsmen on a narrow plank which overhangs an abyss, where each has to think not only of giving and parrying thrusts, but of keeping footing under penalty of destruction. The most unpracticed general feels this at once on taking command in a district where his troops are no longer supplied by routine; or, if he does not, the loss of a single meal to his army would sufficiently impress it on him. While distant spectators imagine him to be intent only on striking or parrying a blow, he probably directs a hundred glances, a hundred anxious thoughts, to the communications in his rear, for one that he bestows on his adversary's front. Perhaps no situation is more pitiable than that of a commander who has allowed an enemy to sever his communications. He sees the end of his resources at hand, but not the means to replenish them. Is he to spread his troops to find subsistence for themselves? How then shall they be assembled to meet the enemy? Shall he combine them for a desperate attack? How, if that attack fails, are they to be fed? He will then have no alternative but to make the best terms he can, or see his army dissolve like snow. Even should there be near him large available stores of food, still, if the communication with his base be cut, his fate is merely postponed, for he can neither procure cartridges and balls for his rifles, shot and shell for his cannon, nor recruits for his ranks, to replace the waste of battle. All leaders, then, must feel how stringent are the conditions under which they move, and how considerable must be the prospective advantages for which they will venture, even remotely, to risk the loss of their communications.

It will be necessary, then, for the student who prepares to follow on the map the operations of the campaign, to begin by ascertaining the bases or points on both sides on which the armies ultimately relied for the supplies of munitions of war and for the reinforcements which their respective Governments furnished; consequently to note and bear in mind the main roads by which, moving from

their bases, they approached each other; and, lastly, to mark the positions of the fronts of the armies in all their changes.

Without these preliminaries he cannot hope to acquire a clear idea of the merits, object, or effect of a single movement.







CHAPTER XV

INFORMATION RELATIVE TO THE APPOINTMENT AND ADMISSION OF CADETS TO THE UNITED STATES MILITARY ACADEMY.

[Communications relating to matters connected with the Military Academy should be addressed to the Adjutant-General, U. S. Army.]

APPOINTMENTS.

How Made.—Each Congressional District and Territory —also the District of Columbia—is entitled to have one cadet at the Academy. Each State is also entitled to have two cadets at the Academy, from the State at large, and forty are also appointed from the United States *at large.* The appointments (except those from the United States *at large* and from the District of Columbia) are made by the Secretary of War at the request of the senator, representative, or delegate in Congress; and the person appointed must be an actual resident of the State, District, or Territory from which the appointment is made. The appointments from the United States *at large* and from the District of Columbia are specially conferred by the President of the United States.

Manner of Making Applications.—Applications can be made at any time, by letter to the Adjutant-General, to have the name of the applicant placed upon the register, that it may be furnished to the proper senator, representative, or delegate, when a vacancy occurs. The application must exhibit the full name, date of birth, and permanent abode of the applicant, with the number of the Congressional District in which his residence is situated.

Date of Appointments.—Appointments are required by law to be made one year in advance of the date of admission, except in ceses, where by reason of death of other cause, a vacancy occurs which cannot be provided for by

such appointment in advance. These vacancies are filled in time for the next examination.

Alternates.—For each candidate appointed there may be nominated *two alternates*. Each of the alternates will receive from the War Department a letter of appointment, and must appear for examination at the time and place therein designated; those previously accepted by the Academic Board on certificate as mentally qualified appearing for physical examination only.

The fitness for admission to the Academy of the principal and the alternates will be determined as prescribed in paragraphs 20, 21, and 21½, Regulations United States Military Academy, given below.

Should the principal and alternates not qualify for admission under the provisions of paragraph 21½, they will still be entitled to appear for the examination prescribed in paragraph 20; but if the principal fails to appear for that examination or, appearing, fails to qualify, then the qualifications of the alternates will be considered, and if only one has met the requirements, he will be admitted; if both alternates have met the requirements, the better qualified will be admitted.

Alternates will not be permitted to submit papers or certificates except as prescribed in paragraph 21½, nor appear for examination except as prescribed in paragraph 20.

The alternates, like the principal, should be designated as nearly one year in advance of the date of admission as possible.

ADMISSION OF CANDIDATES.

The following are the regulations of the Military Academy relating to the examination of candidates for admission, and will be strictly adhered to.

20. Candidates selected for appointment, unless accepted under the provisions of paragraph 21½, shall appear for mental and physical examination before boards of Army officers, to be convened at such places as the War Department may select, on the first

of May, annually, except when that day comes on Sunday, in which case the examination shall commence on the following Tuesday. Candidates who pass successfully will be admitted to the Academy without further examination upon reporting in person to the Superintendent at West Point before 12 o'clock noon on the 15th day of June of the same year.

No candidate shall be examined at any other time unless prevented from presenting himself at the May examination by sickness or other unavoidable causes in which case he shall report to the Superintendent at West Point before 12 o'clock noon on the 12th day of June of the same year.

21. Each candidate before he shall be admitted to the Academy as a cadet must show, by the examination provided for in paragraph 20 or by the methods prescribed in paragraph 21½, that he is well versed in the following prescribed subjects, viz.: reading, writing, spelling, English grammar, English composition, English literature, arithmetic, algebra through quadratic equations, plane geometry, descriptive geography, and the elements of physical geography, especially the geography of the United States, United States history, the outlines of general history, and the general principles of physiology and hygiene.

Candidates may be examined either orally or in writing, and no rejected candidate may be re-examined except upon the recommendation of the Academic Board.

21½. The Academic Board will consider and may accept in lieu of the regular mental entrance examination:

1st. The properly attested examination papers of a candidate who receives his appointment through a public competitive written examination covering the range of subjects prescribed in paragraph 21.

2d. The properly attested certificate of graduation from a public high school or State normal school in which the course of study, together with the requirements for entrance, shall cover the range of subjects prescribed in paragraph 21.

3d. A properly attested certificate that the candidate is a regular student of any incorporated college or university, without condition as to any subject mentioned in paragraph 21.

Application for consideration of papers or certificates shall be made by each candidate and alternate immediately after he receives his appointment. No application will be received after March 15th preceding the regular examination prescribed in paragraph 20.

Candidates accepted as qualified mentally under the provisions of this paragraph shall appear for physical examination at such time and place as the Secretary of War may direct.

[NOTE.—*Applications for blank forms for preparing the above certificates should be addressed to the Adjutant, U. S. Military Academy, West Point, N. Y.*]

Immediately after reporting to the Superintendent for admission, and before receiving his warrant of appointment, the candidate is required to sign an engagement for service in the following form, in the presence of the Superintendent, or of some officer deputed by him:

I,— —, of the State (or Territory) of ——, aged — years — months, do hereby engage (with the consent of my parent or guardian), that, from the date of my admission as a cadet of the United States Military Academy, I will serve in the Army of the United States for eight years, unless sooner discharged by competent authority.

In the presence of —— ——.

—— ——.

The candidate is then required to take and subscribe an oath or affirmation in the following form:

I, —— ——, do solemnly swear that I will support the Constitution of the United States, and bear true allegiance to the National Government; that I will maintain and defend the sovereignty of the United States, paramount to any and all allegiance, sovereignty, or fealty I may owe to any State or country whatsoever; and that I will at all times obey the legal orders of my superior officers, and the rules and articles governing the armies of the United States. ——— ——.

Sworn and subscribed at ——, this —— day of ——, nineteen hundred and ——, before me. ——— ——.

Qualifications.—No candidate will be admitted who is under seventeen or over twenty-two years of age, or who is deformed, or afflicted with any disease or infirmity which would render him unfit for the military service, or who has, at the time of presenting himself, any disorder of an infectious or immoral character. Accepted candidates, if between seventeen and eighteen years of age, should not fall below 5 feet 3 inches in height and 100 pounds in weight; if between eighteen and nineteen years, 5 feet $3\frac{1}{2}$ inches in height and 105 pounds in weight; if over nineteen, 5 feet 4 inches in height and 110 pounds in weight. Candidates must be unmarried.

Each candidate must, on reporting at West Point, present a certificate showing successful vaccination within

one year, or a certificate of two vaccinations, made at least a month apart, within three months.

NOTE.—Candidates are eligible for admission from the day they are 17 until the day they become 22 years of age, on which latter day they are not eligible.

There being no provision whatever for the payment of the traveling expenses of either accepted or rejected candidates for admission, no candidate should fail to provide himself in advance with the means of returning to his home, in case of his rejection.

It is suggested to all candidates for admission to the Military Academy that, before leaving their places of residence for the place of examination, they should cause themselves to be thoroughly examined by a competent physician, and by a teacher or instructor in good standing. By such an examination any *serious* physical disqualification or deficiency in mental preparation would be revealed.

It should be understood that the informal examination herein recommended is solely for the convenience and benefit of the candidate himself, and can in no manner affect the decision of the Academic and Medical Examining Boards.

The *use of tobacco* in any form by cadets is *prohibited.*

PHYSICAL EXAMINATION.

Every candidate is subjected to a rigid physical examination, and if there is found to exist in him any of the following causes of disqualification to such a degree as would immediately or at no very distant period impair his efficiency, he is rejected:

1. Feeble constitution; unsound health from whatever cause; indications of former disease, glandular swellings, or other symptoms of scrofula.
2. Chronic cutaneous affections, especially of the scalp.
3. Severe injuries of the bones of the head; convulsions.
4. Impaired vision, from whatever cause; inflammatory affections of the eyelids; immobility or irregularity of the iris; fistula lachrymalis, etc.
5. Deafness; copious discharge from the ears.
6. Loss of many teeth, or the teeth generally unsound.
7. Impediment of speech.
8. Want of due capacity of the chest, and any other indication of a liability to a pulmonic disease.
9. Impaired or inadequate efficiency of one or both of the superior extremities on account of fractures, especially of the clavicle, contraction of a joint, deformity, etc.

10. An unusual excurvature or incurvature of the spine.
11. Hernia.
12. A varicose state of the veins of the scrotum or spermatic cord (when large), hydrocele, hemorrhoids, fistulas.
13. Impaired or inadequate efficiency of one or both of the inferior extremities on account of varicose veins, fractures, malformation (flat feet, etc.), lameness, contraction, unequal length, bunyons, overlying or supernumerary toes, etc.
14. Ulcers, or unsound cicatrices of ulcers likely to break out afresh.

MENTAL EXAMINATIONS.

Reading.—In *reading*, candidates must be able to read understandingly, and with proper accent and emphasis. They will be required, if called upon, to define intelligently the leading words of the text read.

Writing and Spelling.—In *writing and spelling* they must be able, from dictation, to write legibly, neatly, rapidly, and correctly sentences from standard pieces of English literature, both prose and poetry, sufficient in number to test their qualifications both in handwriting and in spelling. In *punctuation and capitals*, they must be familiar with the rules for punctuation and for the use of capitals. In order to test their knowledge, sentences will be given for correction, or for this purpose a theme may be required of the candidate.

The following specimens are from a recent examination in this subject:

There was no pursuit, though the sun was still high in the heaven when William crossed the Gette. The conquerors were so much exhausted by marching and fighting that they could scarcely move; and the horses were in even worse condition than the men. Their general thought it necessary to allow some time for rest and refreshment. The French nobles unloaded their sumpter horses, supped gaily, and pledged one another in champagne amidst the heaps of dead; and, when night fell, whole brigades gladly lay down to sleep in their ranks on the field of battle. The inactivity of Luxemburg did not escape censure. None could deny that he had in the action shown great skill and energy. But some complained that he wanted patience and perseverance. Others whispered that he had no wish to bring to an end a war which had made him necessary to a court where he had never, in time of peace, found favor or even jus-

tice. Lewis, who on this occasion was perhaps not altogether free from some emotions of jealousy, contrived, it was reported, to mingle with the praise which he bestowed on his lieutenant blame which, though delicately expressed, was perfectly intelligible.

And what is home and where, but with the loving?
Happy thou art, that so canst gaze on thine!
My spirit feels but, in its weary roving,
That with the dead, where'er they be, is mine.

Go to thy home, rejoicing son and brother!
Bear in fresh gladness to the household scene!
For me, too, watch the sister and the mother,
I will believe—but dark seas roll between.

1. Abdicate.
2. Abutted.
3. Accessibility.
4. Acclivity.
5. Accosted.
6. Acme
7. Bachelor.
8. Compass.
9. Derelict.
10. Despondent.
11. Disperse.
12. Erase.
13. Imperative.
14. Kerosene.
15. Mnemonics.
16. Neuter.
17. Orally.
18. Preference.
19. Presbyterian.
20. Raisin.
21. Salad
22. Tidiness.
23. Triple.
24. Villain.

Arithmetic.—Candidates must possess such a complete knowledge of *arithmetic* as will enable them to pursue the study of such branches of mathematics as are taught at the United States Military Academy. They will be subject to examination only in that part of arithmetic which relates to denominate numbers, the processes of common and decimal fractions, the greatest common divisor of numbers, and the least common multiple of numbers.

The following are typical questions:

Reduce $\dfrac{5\frac{1}{2}+\frac{7\frac{1}{4}}{0\,5}-0.725}{\frac{4+3.45}{2\frac{1}{2}}}$ to an equivalent decimal.

Multiply .0578 by .4.

Change .013 to an equivalent fraction whose denominator is 135.

Deduce a method for finding the greatest common divisor of any two integers which cannot readily be factored.

Find the greatest common divisor of $26\frac{1}{4}$, $28\frac{7}{8}$, and $29\frac{1}{6}$.

How many men would be required to cultivate a field of $2\frac{3}{4}$ acres in $5\frac{1}{2}$ days of 10 hours each, if each man completed 77 square yards in 9 hours?

5 cubic feet of gold weigh 98.20 times as much as a cubic foot of water; and 2 cubic feet of copper weigh 18 times as much as a cubic foot of water; how many cubic inches of copper will weigh as much as $\frac{1}{8}$ of a cubic inch of gold?

English shillings are coined from a metal which contains 37 parts of silver to 3 parts of alloy; 1 pound of this metal is coined into 66 shillings. The United States silver dollar weighs 412.5 grains, and consists of 9 parts silver to 1 part of alloy. What fraction of the U. S. dollar will contain the same amount of silver as 1 English shilling?

What is the difference in grains between $42\frac{3}{8}$ lbs. Av. and 42.375 lbs. T.?

Algebra.—Candidates will be required to pass a satisfactory examination in that portion of *algebra* which includes the following range of subjects: definitions and notation; the fundamental laws; the fundamental operations—viz., addition, subtraction, multiplication, and division; factoring; highest common factor; lowest common multiple; fractions, simple and complex; simple, or linear, equations with one unknown quantity; simultaneous simple, or linear, equations with two or more unknown quantities; involution, including the formation of the squares and cubes of polynomials; evolution, including the extraction of the square and cube roots of polynomials and of numbers; theory of exponents; radicals, including reduction and fundamental operations, rationalization, square roots of binomial surds, equations involving radicals, and imaginary quantities; quadratic equations; equations of quadratic form; simultaneous quadratic equations; ratio and proportion; arithmetical and geometrical progressions. Candidates will be required to solve problems involving any of the principles or methods contained in the above subjects.

The following are typical questions:

Enunciate the Commutative Law, the Distributive Law, the Associative Law.

What is a homogeneous algebraic expression? Give example.

Remove brackets from $a-\left[5b-\left\{a-(3c-3b)+2c-(a-2b-2c)\right\}\right]$

Find *L.C.M.* of $6(a^3-b^3)(a-b)^8$, $9(a^4-b^4)(a-b)^2$ and $12(a^2-b^2)^3$

Deduce the condition that the roots of the quadratic equation $ax^2+bx+c=0$ shall be equal, equal numerically with opposite signs, real, imaginary, rational.

A hare is 80 of her own leaps before a greyhound; she takes 3 leaps for every 2 that he takes, but he covers as much ground in 1 leap as she does in 2. How many leaps will the hare have taken before she is caught?

A and *B* run a race, their rates of running being as 17 to 18. *A* runs $2\frac{1}{2}$ miles in 16 minutes 48 seconds, and *B* runs the entire distance in 34 minutes. What was the entire distance?

A and *B* can do a piece of work in 4 hours, *A* and *C* in $3\frac{3}{4}$ hours, *B* and *C* in $5\frac{1}{7}$ hours. In what time can *A* do it alone?

A gun is fired 36 times before a second gun begins, after which the first is fired 8 times while the second is fired 7 times; but the second requires the same amount of powder for 3 shots that the first requires for 4. When both guns have used up the same amount of powder, how many shots have been fired from each?

A, *B*, *C*, and *D*, working one at a time, do a certain work in 130 days. *A* gets 42 cents, *B* gets 45 cents, *C* gets 48 cents, and *D* gets 50 cents for each day's work. Each receives the same amount. How many days did each work?

Having 300 barrels of flour worth \$7.50 per barrel, and 800 barrels worth \$7.80 per barrel, and 400 barrels worth \$7.65 per barrel, how many more barrels of flour at \$8.00 and \$8.50 per barrel will make 2,000 barrels worth \$7.85 a barrel?

Solve
$$\left.\begin{aligned} x+\frac{3}{y}&=\frac{7}{2}\\ 3x-\frac{2}{y}&=\frac{26}{3}\end{aligned}\right\}$$

There is a number which consists of two digits, such that if we divide the number by the product of its digits, we obtain a quotient 5 and a remainder 2, but if we invert the order of the digits and divide the resulting number by the product of its digits, we obtain a quotient 2 and remainder 5. Required the number.

Solve
$$\left.\begin{aligned} 2y^2-4xy+3x^2&=17\\ y^2-x^2&=16\end{aligned}\right\}$$

Simplify
$$\frac{(3+\sqrt{3})(3+\sqrt{5})(\sqrt{5}-2)}{(5-\sqrt{5})(1+\sqrt{3})}$$

Solve
$$\sqrt{2x+7}+\sqrt{3x-18}=\sqrt{7x+1}$$

Find the geometrical progression whose sum to infinity is $4\frac{1}{2}$ and whose second term is -2.

Plane Geometry.—Candidates will be required to give accurate definitions of the terms used in *plane geometry*,

to demonstrate any proposition of plane geometry as given in the ordinary text-books, and to solve simple geometrical problems either by a construction or by an application of algebra.

The following are typical questions:

Name and define the different kinds of triangles; of quadrilaterals.

Prove that, if a perpendicular is drawn to a given straight line at its middle point: 1st. Any point of the perpendicular is equally distant from the extremities of the line; 2d. Any point without the perpendicular is unequally distant from the extremities.

Show that, if through the middle point of one of the sides of a triangle a line be drawn parallel to the base, it will bisect the second side and the part intercepted will be equal to one-half the base.

What number of sides has the polygon the sum of whose angles is twenty-six right angles?

To draw a common tangent to two given circles.

Find the locus of the middle points of all chords of a circle equal in length to a given line.

Find the locus of the middle points of all chords of a circle passing through a given point within the circle.

Prove that through three points not in the same straight line one circumference may always be made to pass, and but one.

Prove that the square described on the hypothenuse of a right-angled triangle is equivalent to the sum of the squares described on the other two sides.

Given the side of an equilateral triangle equal to 10 feet; find its area.

Define "limit of a variable." Illustrate by an example.

Prove that the area of a circle is equal to the product of its circumference by half the radius.

Angles at the centers of equal circles are proportional to what? Angles at the centers of unequal circles are proportional to what? Define the unit angle or radian.

The regular inscribed hexagon is double the equilateral triangle inscribed in the same circle and one-half of the circumscribed equilateral triangle.

English Grammar.—Candidates must have a good knowledge of *English grammar;* they must be able to define the terms used therein; to define the parts of speech; to give inflections, including declension, conjugation, and comparison; to give the corresponding masculine and fem-

inine gender nouns; to give and apply the ordinary rules of syntax.

They must be able to parse correctly any ordinary sentence; giving the subject of each verb, the governing word of each objective case, the word for which each pronoun stands or to which it refers, the words between which each preposition shows the relation, precisely what each conjunction and each relative pronoun connects, what each adjective and adverb qualifies or limits, the construction of each infinitive, and generally to show a good knowledge of the function of each word in the sentence.

They must be able to correct in sentences or extracts any ordinary grammatical errors.

It is not required that any particular text-book shall be followed; but the definitions, parsing, and corrections must be in accordance with good usage and common sense.

The following questions were used at a recent examination:

I. Give the principal parts (present tense, past tense, and past participle) of the following verbs: 1. choose; 2. crow; 3. freeze; 4. slay; 5. stick; 6. fly; 7. sit; 8. burst.

II. Write the plurals of the following words: 1. motto; 2. fairy; 3. money; 4. belief; 5. axis; 6. synopsis; 7. man-of-war; 8. Norman; 9. M.

III. Write the feminine forms of the following words: 1. hero; 2. mankind; 3. murderer; 4. testator; 5. priest; 6. ambassador; 7. Englishman; 8. poet; 9. emperor.

IV. Write the possessive case of the following words: 1. men; 2. I; 3. it; 4. boys; 5. they; 6. prince; 7. King John; 8. King of Italy; 9. Henry the Fourth.

Define the following: 1. Personal pronoun. 2. Preposition.

Parse the words in italics in the following sentence:

Other *things being equal, it* is obvious *that* the writer *who* has most words *to choose from* is most *likely* to find in *his* assortment just the word *which he* needs at a given moment.

Correct all the errors in the following sentences:

1. It was not her that did it.
2. Who do you take him to be?
3. He surely don't expect me to do it.
4. Neither by you nor he was it considered necessary.
5. Each have their own faults.
6. How do you know when its coming?

7. I should not have asked like you did for twice the money.
8. Are either of these places marked on the map?
9. Two fatal errors underlaid his theory.
10. Except you go with me, I shall stay at home.
11. You or he is in the wrong.
12. Here comes Smith and two other men.

In English Composition and English Literature.—Candidates must have a fair knowledge of the general principles and leading rules of composition. Their knowledge will be tested by the correction of errors in the selection and right use of words, of errors in the construction of sentences, by their proficiency in variety of expression, and by their ability to write a letter in the correct form.

They must have a fair knowledge of the names of the most prominent American and English authors and the names of their principal works.

Questions similar to the following are likely to be used:

Indicate the errors in the selection and use of words in the following sentences by underscoring the errors and writing the correct word above the incorrect:

1. He had exceptionable opportunities for learning the language.
2. A century transpired before it was revisited.
3. King Edward the VII. replaced Queen Victoria on the throne of England.
4. I was continually aggravated by his conduct.
5. There were not less than twenty persons present.

Correct the following errors in construction of sentences:

1. The teacher should repress the practice of throwing stones, as far as possible.
2. The French having nearly lost 5,000 men, became discouraged.
3. The picture of the king hung on the wall behind the door, covered with a cloth.
4. He made no petition, though he did not like the new representative quite as well as his colleagues.
5. He did not pretend to abolish French music but only to cultivate it.

For variety, change the following sentences into another correct form and still keep the same meaning:

1. If that be granted the rest is easily proved.
2. We hope we shall have the pleasure of seeing you.
3. A man that has little sense is seldom aware of the fact.

4. He was the first that entered.
5. His disease was one that cannot be cured.

Write the following letter in proper form to Charles Smith at 2121 Mount Vernon Avenue, Baltimore, Maryland, giving proper address and complimentary conclusion:

March 2 1900 philadelphia pa 8131 Eighth street

by this mail I send you two copies of the book ordered by you the 13th ultimo hoping they will prove satisfactory

hamlin and Co.

What author wrote? 1. Gulliver's Travels. 2. Macbeth. 3. Pilgrim's Progress. 4. Childe Harold.

Name one work of each of the following authors: 1. Tennyson. 2. Hawthorne. 3. Milton. 4. Spenser.

Geography.—Candidates will be required to pass a satisfactory examination in *descriptive geography* and the elements of *physical geography*. A preponderance of weight is attached to a knowledge of the geography of the United States.

In descriptive geography of the United States, candidates should be thoroughly informed as to its general features and boundaries (both with respect to neighboring countries and latitude and longitude); its adjacent oceans, seas, bays, gulfs, sounds, straits, and islands; its lakes, the location and extent of its mountain ranges; the sources, directions, and terminations of the important rivers, the names of their principal tributaries, and at what points, if any, these rivers break through highlands on their way to the ocean; the water routes of communication from one part of the country to another; the location and termination of important railroad lines; the boundaries of the several States and Territories and their order along the coasts, frontiers, and principal rivers; the locations and boundaries of the Island possessions; and the names and locations of the capitals and other important cities of the several States, Territories, and Island possessions.

In short, the knowledge should be so complete that a clear mental picture of the whole of the United States is impressed on the mind of the candidate.

In descriptive geography of other countries, candidates should be familiar with the continental areas and grand divisions of the water of the earth's surface; the large bodies of water which in part or wholly surround the grand divisions of the land; the capes, from what parts they project and into what waters; the principal peninsulas, location, and by what waters embraced; the parts connected by an isthmus; the principal islands, location, and surrounding waters; the seas, gulfs, and bays, the coasts they indent, and the waters to which they are subordinate; the straits, the lands they separate, and the waters they connect; the location of the principal lakes; the locations, boundaries, capitals, and principal cities of the political divisions of the world.

In physical geography, candidates should be familiar with the relief of the earth's surface; the principal mountain systems, the river systems, and the watersheds; the coastal and lake plains; and the influence of climate, soil, mineral deposits, and other physical features on the resources, industries, commercial relations, and development of the country and its people, especially of the United States.

The following questions were used at a recent examination:

1. Name the bodies of water surrounding Europe.
2. Where is (1) Cape St. Vincent, (2) Cape Corrientes, (3) Cape Matapan, (4) Cape Lopez, (5) Cape Comorin, (6) Cape York?
3. Name in order the political divisions of South America which border on the Pacific Ocean, and the capital of each.
4. Locate definitely the following islands: (1) Mauritius, (2) Tasmania, (3) Formosa, (4) New Zealand, (5) Madeira, (6) Falkland; to what country does each belong?
5. Where are the gulfs of (1) Bothnia, (2) Guinea, (3) Paria, (4) Salonica, (5) Pechili?
6. What lands are separated and what waters connected by (1) Torres Strait, (2) Hudson Strait, (3) Strait of Malacca?
7. Bound Italy; name its capital, largest river, and principal mountain range.
8. Locate definitely the following cities: (1) Vienna, (2) Nankin, (3) Cork, (4) Tunis, (5) Montevideo, (6) Batavia, (7) Suez, (8) Pretoria.

9. Name in order the waters traversed in sailing from Liverpool, England, to Hong Kong, China.
10. A considerable portion of the boundary line of the United States is along what parallel?
11. Locate definitely the following: (1) Flatland Lake, (2) Sabine Pass, (3) Black Hills, (4) Sebago Lake, (5) Cape Lookout, (6) Montauk Point, (7) Wichita Mountains, (8) Lingayen Bay.
12. The meridian of Minneapolis passes through what States?
13. Name the principal rivers that drain Pennsylvania; where do they rise, at what points do they leave the State, and at what points, if any, do they break through highlands?
14. Name all the waters traversed in going by the two commercial water routes from Duluth to the Atlantic Ocean.
15. Name the principal ranges of mountains crossed in going by rail from New York to San Francisco; state the rail route assumed to be traveled.
16. Bound precisely the following States and Territories: (1) Montana, (2) Arizona, (3) Arkansas, (4) Wisconsin, (5) Pennsylvania, (6) Georgia. (In bounding, all contiguous States must be mentioned, as well as rivers, mountain ranges, etc.)
17. Name the States west of the Mississippi River drained wholly or in part by it or its tributaries, and give the capital of each.
18. Locate accurately the following cities: (1) Austin, (2) Pensacola, (3) Asheville, (4) Winchester, (5) Allegheny, (6) Iloilo, (7) Oswego, (8) Pasadena, (9) Guthrie, (10) Detroit.
19. Going by water from New Orleans, La., to Pittsburg, Pa., what States would you pass on the left?
20. How many large islands are there in the Hawaiian group? Which is the largest? Which is the most important?
21. Going westward on the 35th parallel of north latitude, from near Newbern, N. C., what States and large rivers would be crossed?
22. Describe the chief mountain system of the Eastern Hemisphere, and state what island chains of Asia abound in volcanoes.
23. What are the great river systems of South America? Where are the principal coastal plains?
24. What are the qualifications of a good harbor? Name three of the best harbors on the Atlantic coast; one on the Pacific coast.
25. What has made the Middle Atlantic States the principal commercial section of the United States?

History.—The candidate will be required to be familiar with so much of the *history of the United States* and the outlines of *general history* as is contained in the ordinary school histories.

In history of the United States, the examination will include questions concerning early discoveries and settle-

ments; the forms of government in the Colonies; the causes, leading events, and results of wars; and prominent events in the history of our Government since its foundation.

In general history, candidates must have a fair knowledge of the general outlines of the history of the following nations: Egyptian, Assyrian, Babylonian, Persian, Grecian, and Roman; and of the mediæval and modern history of the European nations.

The following questions show the character of the examination in United States History and in General History:

United States History.

1. What explorations or discoveries did each of the following-named persons make? Give the date in each case. (*a*) De Narvaez. (*b*) Coronado. (*c*) Marquette. (*d*) La Salle.
2. Name three colonies that were founded for religious reasons and give the sect or denomination by which each was colonized.
3. Who were the Pilgrims?
4. When, and under what circumstances, was Delaware separated from Pennsylvania?
5. Give an account of Bacon's rebellion.
6. When and where did each of the following events occur? (*a*) Meeting of the first Colonial Congress. (*b*) Burgoyne's surrender. (*c*) Arnold's treason.
7. Name some important results of each of the following battles of the Revolutionary War. (*a*) Long Island. (*b*) Trenton. (*c*) Brandywine.
8. Name four additions to the territory of the United States since the Revolutionary War, and give the way each has been acquired.
9. Bound the territory of the United States at the close of the Revolutionary War.
10. What was the "Massacre of Wyoming"?
11. When, where, and for what purpose did the Constitutional Convention meet? What resulted from its deliberations?
12. What was the "Whiskey Insurrection"?
13. What were the "Alien and Sedition" laws? What was their effect?
14. When and where was the last battle of the War of 1812 fought? Name the commanders on each side.
15. What were the two principal political parties in 1860? Their candidates for the Presidency? Their leading doctrines on the slavery question? Parties. Candidates. Principles.

16. With what foreign nations had the United States unfriendly relations during and at the close of the Civil War? Give the cause in each case.
17. Name, with date, three important military events of 1865.
18. What Vice-Presidents have become President? Name the predecessor in each case.
19. Give an account of the "Virginius affair."
20. In what war were the following battles fought? What were the opposing forces? Which side won? (*a*) Ticonderoga. (*b*) Monterey. (*c*) Saratoga. (*d*) Stony Point. (*e*) Spottsylvania. (*f*) Lundy's Lane.

General History.

1. Into what general periods is the history of Egypt divided?
2. Into what classes was Egyptian society divided?
3. Name one of the great kings of Assyria.
4. In what region did the Assyrian kingdom lie?
5. Name the greatest Babylonian king and describe some of his achievements.
6. Who was the founder of the Persian Empire?
7. State the principal events of the reign of Darius I.
8. Into what three general parts was ancient Greece divided, and what was the name of the principal State in each?
9. What was the character of the Spartan people and the nature of their government?
10. What was the character of the Athenian people, and the nature of their government after the expulsion of the tyrants?
11. Name four great battles of the Greco-Persian War, and give the date of any one of them?
12. What was the name of the great war between the Grecian States, and what States were the leaders in it?
13. Give an outline of the conquests of Alexander the Great. In what century did they occur?
14. What was the nature of the early government of Rome?
15. Give the title of the principal officers of the Roman Republic, and describe their functions.
16. What were the Punic wars? How many in number? Name two great Carthagenian and two great Roman generals.
17. Who was Augustus Cæsar? State briefly the principal events of his career.
18. What was the feudal system, and how did it originate?
19. What is meant by the Renaissance?
20. Who was the leader of the Reformation? Describe briefly its nature and principal events.
21. Who was Oliver Cromwell, and what did he establish?
22. What was the cause of the French Revolution, and what did it effect?

23. Under what two forms of government did Napoleon rule France, and what was the "Code Napoleon"?
24. When and under what circumstances was the new German Empire founded?
25. Name some of the more important events of Queen Victoria's reign.

Physiology and Hygiene.—Candidates must be able to pass a satisfactory examination in the general principles of *physiology and hygiene*, with special reference to the nature and the effects of alcoholic drinks and other narcotics upon the human system.

They must be able to state the general effects of alcohol upon the cells and tissues of the body and upon the processes of digestion, its effects on the liver, lungs, and heart, on the blood, blood-vessels, and on the nervous system, on the moral powers, and the capacity for physical endurance; its hereditary effects; the origin and nature of alcoholic beverages; the general effects of tobacco on the cells and tissues of the young and on the digestive organs, its effects on the throat, on the heart, on the blood, on the nervous system; the effects of opium on the stomach and on the nervous system; the influence of tea and coffee on the system.

Questions similar to the following are likely to be used:

1. What are the two important offices of the bones? Describe the internal minute structure of the bone.
2. Name in order the different parts of the alimentary canal.
3. Indicate by diagram the shape of the human stomach; mark the left side when in position.
4. What is the mucous membrane—its structure; the serous membrane—its use?
5. What in general is the effect of alcohol and tobacco on the living cells; what is the only absolute safeguard against the narcotic appetite?
6. What chronic effect is often produced on the stomach by the habitual use of alcohol?
7. Name in order all the channels through which the air passes in respiration; in what part of the circuit does it aërate the blood?
8. What is the average amount of air taken in at one inspiration; what changes are observed in the expired air?

9. What is the usual effect on the stomach of the habitual use of alcohol?
10. Name two well-determined effects of alcohol upon the liver.
11. What is meant by the general circulation of the blood?
12. What are the two systems of channels for the circulation of the blood? Describe the structure of each.
13. Starting with the blood in the right auricle, describe its course through the body until it returns to the same receptacle.
14. What are the three agencies instrumental in returning the blood from the different parts of the system to the heart?
15. What are the effects of alcohol on the blood—of tobacco?
16. What are the effects of alcohol on the heart—what is the explanation of the fact that alcohol sometimes increases the rapidity of heart-beats?
17. What is the effect of tobacco that produces the disease known as the "tobacco heart"?
18. Describe the structure of the skin—what are the functions of the skin?
19. What is the explanation of the disease "aneurism" when due to alcohol?
20. Under what two heads may we in general class the changes produced by alcohol on the structures of the organs—which of these is due to the stronger beverages?

ACADEMIC DUTIES.

The academic duties and exercises commence on the first of September and continue until the first of June. Examinations of the several classes are held in January and June, and, at the former, such of the new cadets as are found proficient in studies and have been correct in conduct are given the particular standing in their class to which their merits entitle them. After each examination, cadets found deficient in conduct or studies are discharged from the Academy, unless the Academic Board for special reasons in each case should otherwise recommend. Similar examinations are held every January and June during the four years comprising the course of study.

Military Instruction.—From the termination of the examination in June to the end of August the cadets live in camp, engaged only in military duties and exercises and receiving practical military instruction.

Except in extreme cases, cadets are allowed but one leave of absence during the four-years course; as a rule, the leave is granted at the end of the first two-years course of study.

PAY OF CADETS.

The pay of a cadet is $500 per year and one ration per day, or commutation therefor at 30 cents per day. The total is $609.50, to commence with his admission to the Academy. The actual and necessary traveling expenses of candidates from their homes to the Military Academy are credited to their accounts *after* their admission as cadets. There is no provision for paying the expenses of candidates who fail to enter, and they must be prepared to defray all their own expenses.

No cadet is permitted to receive money, or any other supplies, from his parents, or from any person whomsoever, without the sanction of the Superintendent. A *most rigid* observance of this regulation is urged upon all parents and guardians, as its violation would make distinctions between cadets, which it is the especial desire to avoid; the pay of a cadet is sufficient, with proper economy, for his support.

Each cadet must keep himself supplied with the following-mentioned articles, viz.:

Two pairs of uniform shoes; six pairs of uniform white gloves; two sets of white belts; *eight white shirts; *four night-shirts; twelve white linen collars; twelve pairs of white linen cuffs; *eight pairs of socks; *eight pairs of summer drawers; *six pairs of winter drawers; *twelve pocket handkerchiefs; * twelve towels; two clothes-bags, made of ticking; *one clothes-brush; *one hair-brush; *one tooth-brush; *one comb; one mattress; one pillow; four pillow-cases; eight sheets, two blankets, and one quilted bed-cover; one chair; one tumbler; *one trunk; one account-book; one wash-basin.

Candidates are authorized to bring with them the articles marked *.

Cadets are required to wear the prescribed uniform. All articles of their uniform are of a designated pattern, and are sold to cadets at West Point at regulated prices.

DEPOSIT PRIOR TO ADMISSION.

Immediately after being admitted to the institution, cadets must be provided with an outfit of uniform, the cost of which will be about $100, *which sum must be deposited with the Treasurer of the Academy before the candidate is admitted.* It is best for a candidate to take with him no more money than will defray his traveling expenses, and for the parent or guardian to send to "*The Treasurer of the U. S. Military Academy*" the required deposit of $100. This amount is sufficient to equip a new cadet with uniform and to supply him with all articles and books.

ASSIGNMENT TO CORPS AFTER GRADUATION.

The attention of applicants and candidates is called to the following provisions of an Act of Congress, approved May 17, 1886, to regulate the promotion of graduates of the United States Military Academy:

"That when any cadet of the United States Military Academy has gone through all its classes and received a regular diploma from the Academic Staff, he may be promoted and commissioned as a second lieutenant in any arm or corps of the Army in which there may be a vacancy and the duties of which he may have been judged competent to perform; and in case there shall not at the time be a vacancy in such arm or corps, he may, at the discretion of the President, be promoted and commissioned in it as an additional second lieutenant, with the usual pay and allowances of a second lieutenant, until a vacancy shall happen."

COURSE OF STUDY AND BOOKS USED AT THE UNITED STATES MILITARY ACADEMY.

(Books marked thus * are for reference.)

FIRST YEAR—FOURTH CLASS.

Mathematics.

C. Smith's Treatise on Algebra.
Phillips & Fisher's Elements of Geometry.
Ludlow's Elements of Trigonometry.
C. Smith's Conic Sections.

J. B. Johnson's Theory and Practice of Surveying.
*Ludlow's Logarithmic Tables.

Modern Languages.

Williams' Composition and Rhetoric.
Abbott's How to Write Clearly.
Meiklejohn's English Language.
*Smith's Synonyms Discriminated.
Keetel's Analytical and Practical French Grammar.
Castærède's Treatise on the Conjugation of French Verbs.
Roemer's Cours de Lecture et de Traduction, Vol. I.
Bôcher's College Series of French Plays, Vol. II.
*Spiers & Surenne's French Pronouncing Dictionary.
De Peiffer's French Pronunciation.
*Roget's Thesaurus of English Words.
*Webster's Dictionary.

Drill Regulations, U. S. Army.

Practical Instruction in the Schools of the Soldier, Company and Battalion—Infantry.
Theoretical Instruction in the School of the Soldier and Company.
Practical and Theoretical Instruction in the School of the Cannoneer—Siege and Light Artillery.
Theoretical and Practical Instruction in the Service of Security and Information.
Exercises in Applied Tactics, and Practice Marches—Infantry.
Theoretical and Practical Instructon in Target Practice.
U. S. Infantry and Light Artillery Drill Regulations.
Firing Regulations for Small-Arms.
Manual of Security and Information, by the Department of Tactics.

Use of the Sword, etc.

Instruction in Fencing with Rapier and Broadsword and Bayonet Exercise, and Military Gymnastics.

SECOND YEAR—THIRD CLASS.

Mathematics.

C. Smith's Conic Sections and Solid Geometry.
Church's Descriptive Geometry, with its application to Spherical Projections, Shades, Shadows, and Perspective.
Bass' Differential Calculus.
Johnson's Text-Book on the Method of Least Squares.
D. A. Murray's Integral Calculus.

Modern Languages.

Borel's Grammaire Française.
Hennequin's Lessons in Idiomatic French.
Bôcher's College Series of French Plays, Vol. II.

Roemer's Cours de Lecture et de Traduction, Vol. II.
Revue Militaire de l'Etranger.
Le Figaro.
Eco de Madrid.
Edgren's Compendious French Grammar.
*De Peiffer's French Pronunciation.
*Willcox's Military Technical Dictionary.
Monsanto and Languellier's Spanish Grammar.
Knapp's Spanish Grammar.
Knapp's Spanish Reader.
Traub's Spanish Verb and Spanish Pronunciation.
Ramsey's Elementary Spanish Reader.
*Spiers & Surenne's French Pronouncing Dictionary.
*Seoane's Neumann & Baretti's Spanish Dictionary.

Drawing.

Constructive Problems in Plane Geometry, Point Paths, Topography and plotting of Surveys with lead pencil, pen and ink, and colors; construction of the various problems in Descriptive Geometry, Shades and Shadows, Linear Perspective and Isometric Projections; Practical Surveying in the Field.

Field Reconnaissance Contouring, and Sketching with and without instruments; Theory of color and laying of tints; History of Cartography and Topography; Triangulation and large Surveys. Lectures on the foregoing.

*Reed's Topographical Drawing and Sketching, including Photography applied to Surveying.

Drill Regulations, U. S. Army.

Practical Instruction in the Schools of the Soldier, Company and Battalion—Infantry.

Practical Instruction in the School of the Cannoneer—Light Artillery; and School of the Trooper—Cavalry; and Equitation.

Practical Instruction in Small-Arms Target Practice.
Practical Instruction in the Service of Security and Information.
Exercises in applied Tactics and Practice Marches—Infantry.
*U. S. Army Drill Regulations.
*Manual of Security and Information, by the Department of Tactics.
*Firing Regulations for Small-Arms.

Practical Military Engineering.

Practical Instruction in Surveying.
*J. B. Johnson's Theory and Practice of Surveying.

THIRD YEAR—SECOND CLASS.

Natural and Experimental Philosophy.

Michie's Analytical Mechanics.
Michie & Harlow's Practical Astronomy.
Young's General Astronomy.
Michie's Elements of Wave Motion Relating to Sound and Light.
Practical Instruction in Astronomy.

Chemistry, Mineralogy, and Geology.

Tillman's Descriptive General Chemistry (3d Edition).
Tillman's Elementary Lessons in Heat (3d Edition).
Tracy's Anatomy, Physiology, and Hygiene.
Thompson's Elementary Lessons in Electricity and Magnetism (New and Revised Edition).
Tillman's Important Minerals and Rocks.
Le Conte's Elements of Geology (4th Edition).
Practical Instruction in Chemistry, Electricity, and Mineralogy.

Drawing.

Freehand Drawing and Landscape in black and white. Mechanical and Architectural Drawing in ink and colors; Military Landscape, Sketching in the Field; Memory Drawing; Freehand Mechanical Drawing without instruments; Building Construction, Working Drawings and Isometric Sections; Engineering and Ordnance Drawing; Lectures on all the foregoing subjects with stereopticon.

*Reed's Topographical Drawing and Sketching, including Photography applied to Surveying.

Drill Regulations, U. S. Army.

Practical Instruction in the Schools of the Soldier, Company and Battalion—Infantry.
Theoretical Instruction in Drill Regulations—Infantry, Light Artillery, and Cavalry.
Practical Instruction in the School of the Cannoneer—Seacoast Artillery.
Practical Instruction in the Schools of the Troop and Squadron—Cavalry; and Equitation.
*Dyer's Handbook for Light Artillery.

Practical Military Engineering.

Practical Instruction in the Construction of Pontoon Bridges; in Laying Gun Platforms, and in the Construction of Revetments and Obstacles.
*Official Publications of Signal Department, U. S. A.
*U. S. Bridge Equipage and Drill.
*Beach's Manual of Military Engineering.

Military Hygiene.

Lectures on Military Hygiene.

FOURTH YEAR—FIRST CLASS.

Civil and Military Engineering and Science of War.

Wheeler's Civil Engineering.
Fiebeger's Field Fortifications.
Fiebeger's Pamphlet on Permanent Fortification.
Mercur's Attack of Fortified Places.
Wagner's Organization and Tactics and the Service of Security and Information.
Mahan's Stereotomy.

Law.

Davis' Elements of Law.
Davis' International Law (2d Edition).
Davis' Military Law.
Flanders' Manual of the Constitution.

History and Historical Geography.

Duruy's General History.
*Labberton's New Historical Atlas.

Practical Military Engineering.

Demolitions.
Practical Instruction in Construction of all kinds of Military Bridges; in Preparation and Application of Siege Material; and in Laying out Siege and Field Works.
Practical Instruction in Military Reconnaissance.
*Professional Papers No. 29, Corps of Engineers.
*Woolwich Text-Book of Military Engineering.
*Chatham Text-Book of Military Engineering.
*Beach's Manual of Military Engineering.

Drill Regulations, U. S. Army.

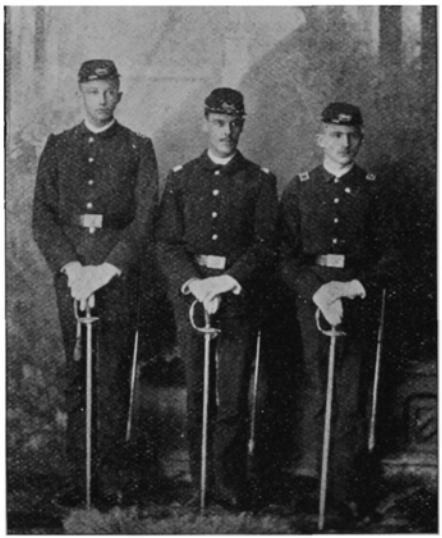
Practical Instruction in the Schools of the Soldier, Company and Battalion—Infantry; of the Troop and Squadron—Cavalry; Packing and Equitation.
Theoretical Instruction in U. S. Cavalry Drill Regulations.
Practical Instruction in the School of the Battery—Light, Horse, and Mountain Artillery.
Practical Instruction in the Service of Security and Information; Exercises in Applied Tactics; Practical Instruction in Small-Arms Target Practice; Practice Marches—Infantry, Cavalry, and Artillery; Lectures on Customs of Service, Military Etiquette, and Equipment; Lectures on Hippology, Saddling and Harnessing, Horseshoeing, Stable Management, and Practical Work at Stables, etc.
United States Army Cavalry Drill Regulations.
*Carter's Horses, Saddles, and Bridles.
*Manual of Security and Information, by the Department of Tactics.

*Dyer's Handbook for Light Artillery
*Firing Regulations for Small-Arms.

Ordnance and Gunnery.

Bruff's Ordnance and Gunnery.
Practical Instruction in the Use of Ballistic Instruments and the Determination of Velocities and Pressures.
Ingalls' Ballistic Tables.
*Ludlow's Logarithmic Tables.

WAR DEPARTMENT, *August* 16, 1902.



STATE CADETS.



WEST POINT CADET.

CHAPTER XVI.

How Commissions Are Obtained in the United States Army.

Officers are commissioned in the three following ways: (1), From cadets instructed at the West Point Military Academy, which supplies all arms indiscriminately; (2), from the successful candidates in competitive examination of meritorious non-commissioned officers; (3) by appointment to the grade of officer, made by the President.

The first case is the usual one; the last is exceptional, save in case of war. The second case—the appointment of meritorious non-commissioned officers to the grade of officer—takes place only when there are vacancies in the Army after the assignment to regiments of all the cadets having been graduated from the Military Academy.

The following orders relate to promotions from the enlisted men of the Army and to appointments from civil life:

General Orders, } Headquarters of the Army,
No. 70. } Adjutant-General's Office,
Washington, July 8, 1902.

By direction of the Secretary of War, the Regulations published in General Orders, No 79, November 26, 1892, from this office, to carry into effect an act approved July 30, 1892, having been amended by the President to read as follows, are published for the information and guidance of all concerned:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the President be, and he is hereby, authorized to prescribe a system of examination of enlisted men of the Army, by such boards as may be established by him, to determine their fitness for promotion to the grade of second lieutenant: *Provided,* That all unmarried soldiers under thirty years of age, who are citizens of the United States, are physically sound, who have served honorably not less than two years in the Army, and

who have borne a good moral character before and after enlistment, may compete for promotion under any system authorized by this act.

SECTION 2. That the members and recorder of such boards as may be established by the President, under the provisions of the preceding section, shall be sworn in every case to discharge their duties honestly and faithfully; and the boards may examine witnesses, and take depositions, for which purposes they shall have such powers of a court of inquiry as may be necessary.

SEC. 3. That the vacancies in the grade of second lieutenant heretofore filled by the promotion of meritorious non-commissioned officers of the Army, under the provisions of section three of the act approved June eighteenth, eighteen hundred and seventy-eight, shall be filled by the appointment of competitors favorably recommended under this act, in the order of merit established by the final examination. Each man who passes the final examination shall receive a certificate of eligibility, setting forth the subjects in which he is proficient and the especial grounds upon which the recommendation is based: *Provided*, That not more than two examinations shall be accorded to the same competitor.

SEC. 4. That all rights and privileges arising from a certificate of eligibility may be vacated by sentence of a court-martial, but no soldier, while holding the privileges of a certificate, shall be brought before a garrison or regimental court-martial or summary court.

SEC. 5. That sections three and four of the act approved June eighteenth, eighteen hundred and seventy-eight, providing for the promotion of meritorious non-commissioned officers, be, and the same are hereby, repealed.

Approved July 30, 1892.

I. For the purpose of computing age and length of service, the first day of September of each year, commencing with 1893, is fixed as the date of competition.

Any soldier, otherwise qualified, whose age will not exceed thirty years on the first of September following, and who shall have served honorably not less than two years in the Army, on or before that date, may (on or before the first day of February of any year after 1902) make application, through the regular military channels, to his department commander, for preliminary examination, with a view to determine his eligibility for entering the competitive examination.

PRELIMINARY EXAMINATION.

II. As soon as practicable after the fifteenth of March the department commander will convene a board of five commissioned officers, including two medical officers, for the preliminary examination of applicants, and will order the applicants in his command to appear before it. This board will institute a rigid inquiry into the character, capacity, record, and qualifications of the several candi-

dates, and will recommend none for competitive examination who are not able to establish their fitness for promotion to the entire satisfaction of the board. To that end the procedure of the department boards will be based upon that of retiring boards. Evidence will be obtained from the certificates of officers, from witnesses under oath, and by means of sworn interrogatories. The military record of each candidate will be closely examined and his antecedents before entering the service will be made the subject of special inquiry.

Every applicant will be subjected to a rigid physical examination, and if there be found to exist any cause of disqualification to such a degree as might in the future impair his efficiency as an officer in the Army, he will be rejected. Examination as to physical qualifications shall conform to the standard required of recruits, and a certificate of physical examination by the medical officers of the board shall accompany the proceedings of the board.

The preliminary examination will embrace the following subjects:

1. English grammar, including orthography, reading, and writing from oral dictation.

2. Mathematics, including arithmetic, algebra, to include the solution of equations of the first degree containing one unknown quantity, the use of logarithms, the elements of plane geometry, plane trigonometry, and surveying.

3. Geography, particularly in reference to the United States and North America.

4. The outlines of general history, and particularly the history of the United States.

5. The Constitution of the United States and the organization of the Government under it, and the elements of international law.

6. Army regulations, and the drill regulations of the arm from which he is selected. The examinations in drill regulations will be practical, extending through the schools of the soldier, squad, and platoon, and shall take place on the parade-ground in the presence of the board.

7. The military record of the candidates as certified to by their company, post, and regimental commanders.

8. Physical aptitude, as determined by the medical examination; proficiency in athletics, skill in field sports, etc.

9. Moral character and civil record as verified by the investigations of the board.

In awarding marks, the board will give to each subject in the examination the relative weight given in the following example. The weight to be given to each question will be determined by its importance, and will be set opposite the question in the papers furnished the candidates.

Example.

1. English grammar, orthography, etc	100
2. Mathematics	200
3. Geography	100
4. History	100
5. Constitution and international law	100
6. Army and drill regulations and military capacity and aptitude as determined therefrom	200
7. Military record	100
8. Physique	100
9. Moral character and antecedents	200
	1200

The duty of making the preliminary examination of applicants is one involving, in a high degree, the welfare and character of the service, and all officers of departmental boards are enjoined to exercise the utmost circumspection and care, not only that no unworthy applicant be recommended, but also that the most worthy shall be recommended. All statements and certificates as to moral character, general aptitude, and fitness should be carefully verified by disinterested evidence.

Separate records will be submitted in each case to the department commander, who will forward them, with all papers presented in relation to the applicant, to the Adjutant-General of the Army.

COMPETITIVE EXAMINATION.

III. A board to consist of five commissioned officers (including two medical officers, whose duties will be confined to inquiring into and reporting upon the physical qualifications of the applicants) will be convened by the War Department, to meet at Fort Leavenworth, Kansas, on the first of September of each year, commencing with 1902, to conduct the final competitive examination of the applicants who have successfully passed the departmental boards, in conformity with the following regulations:

IV. Every applicant will be subjected to a rigid physical examination, and if there be found to exist any cause of disqualification to such a degree as might in the future impair his efficiency as an officer in the Army, he will be rejected. Examination as to physical qualifications shall conform to the standard required of recruits, and shall include a certificate of physical examination by the medical officers of the board to accompany the proceedings of the board.

The board, being satisfied as to these preliminary points, will proceed to examine each candidate separately in the following subjects:

1. English grammar, including orthography, reading, and writing from oral dictation.

2. Mathematics, including arithmetic, algebra, to include the solution of equations of the first degree containing one unknown quantity, the use of logarithms, the elements of plane geometry, plane trigonometry, and surveying.

3. Geography, particularly in reference to the United States and North America.

4. The outlines of general history, and particularly the history of the United States.

5. The Constitution of the United States and the organization of the Government under it, and the elements of international law.

6. Army regulations and the drill regulations of the arm from which the candidate is selected. The examination in drill regulations will be practical, extending through the school of the soldier, squad, and platoon, and shall take place on the parade-ground in the presence of the board.

7. The military records of the candidates as certified to by their company, post, and regimental commanders.

8. Physical aptitude, as determined by the medical examination; proficiency in athletics, skill in field sports, etc.

9. Moral character and civil record as verified after a thorough investigation by the board.

In awarding marks, the board will give to each subject in the examination the relative weight given in the form following below:

Example.

No.	Subject.	Average.	Relative weights.	Products of multiplication by relative weights.
1	English grammar, etc.	82	3	246
2	Mathematics	76	4	304
3	Geography	80	2	160
4	History	73	3	219
5	Constitutional and international law	67	2	134
6	Army and drill regulations, etc.	75	3	225
7	Military record	80	2	160
8	Physique	75	3	225
9	Moral character and antecedents	85	3	255
			25	1,928
	General average			77.12

General average of the candidate will be computed as follows: Mark each question according to its relative weight, and reduce the

aggregate of marks thus obtained in each subject to a scale of 100. The result will give the average of proficiency in the subject. Multiply the average in each subject by the number indicating the relative weight of the subject and divide the sum of the products by the sum of the relative weights; the quotient will be the general average. No candidate will be passed by the board who shall not have attained an average of 65 per cent in each subject of examination and a general average of at least 70 per cent.

V. When the board shall have examined and passed upon all the applicants, it will prepare a tabulated statement showing the order of their relative merit as developed by the examination, and forward the proceedings, with all papers pertaining thereto, to the Adjutant-General.

Soldiers who successfully pass the final examination, and receive certificates as required by law, will be known in the service as "candidates for promotion," and will have the title of "candidate" prefixed to that of their rank on all rolls, returns, orders, and correspondence. They will be entitled to this privilege so long only as they maintain the specially honorable position of "candidate."

An applicant who fails to pass the competitive board at his first examination will not be required to pass a departmental board a second time. In order to secure a re-examination, he will forward an application therefor through his regular military commanders (whose remarks will be indorsed thereon), to the Adjutant-General, at least three months in advance of the time of holding the annual competitive examination. After re-examination he will take his place in the relative merit list with those examined at the time of his re-examination.

No soldier will be re-examined who shall have passed the age limit prior to the date set for such re-examination.

"Candidates" who may be guilty of misconduct will be promptly reported to the Adjutant-General of the Army, through regimental and department headquarters, the report to give a full statement of the misconduct alleged, with names of witnesses. Before forwarding such report to the Adjutant-General of the Army, the department commander will see that the "candidate" has a fair and impartial hearing, that the merits of the case may be carefully and accurately determined and reported on for the decision of the Secretary of War.

Candidates will not be deprived of the privileges of their position except by sentence of court-martial as required by the law, or by the decision of the Secretary of War.

BY COMMAND OF LIEUTENANT-GENERAL MILES:

H. C. CORBIN,
Adjutant-General,
Major-General, U. S. Army.

CIVILIAN APPOINTMENTS.

Applications for appointment of second lieutenant should be addressed to the Adjutant-General, U. S. A. There is no prescribed form of application. The names of all applicants are placed on a list for the consideration of the President when these appointments are to be made, but it is impossible to state what the chances are for the selection of any particular candidate. Those who may be selected will, however, be duly notified of the time and place of examination.

GENERAL ORDERS, NO. 71.

HEADQUARTERS OF THE ARMY, ADJUTANT-GENERAL'S OFFICE, *Washington, July* 8, 1902.

By direction of the Secretary of War, the regulations published in General Orders, No. 156, August 24, 1899, from this office, to carry into effect a provision of law regarding the appointment of persons in civil life to be second lieutenants in the Army, having been amended by the President to read as follows, are published for the information of all concerned:

[Extract from Act of Congress approved March 2, 1899]

Vacancies in the grade of second lieutenant shall be filled as now provided by law, except that no person shall be appointed from civil life *before he shall have reached the age of twenty-one years nor after he shall have reached the age of twenty-seven years, nor until he shall have passed a satisfactory examination as to his moral, physical, and educational qualifications.*

I. No person shall be examined unless he has a letter from the War Department authorizing his examination.

If the candidate has been graduated at an institution where he received military instruction, he must present a diploma or a recommendation from the faculty of the institution.

If a member of the National Guard, he must present recommendations from the proper National Guard authorities.

II. Every candidate will be subjected to a rigid physical examination, and if there be found to exist any cause of disqualification which might in the future impair his efficiency as an officer of the Army, he will be rejected. The board will inquire and report concerning each applicant whether he is of good moral character or addicted to the use of intoxicating liquors. Examination as to physical qualifications will conform to the standard required of

recruits, and include a certificate of physical examination by two medical officers, to accompany the proceedings of the board (which will embrace all the information required by the form for the examination of recruits).

III. No candidate will be examined who is married, or under twenty-one or over twenty-seven years of age; who is not a citizen of the United States; who, in the judgment of the board, is not physically qualified to discharge all the duties of an officer in active service; who has any deformity of body or mental infirmity, or whose moral habits are bad.

IV. The board, being satisfied as to these preliminary points, will proceed to examine each candidate separately.

1. In his knowledge of English grammar, and his ability to read, write, and spell with facility and correctness.

2. In his knowledge of arithmetic and his ability to apply its rules to all practical questions; in his knowledge of the use of logarithms and ability to apply them to questions of practice; in his knowledge of algebra, to include the solution of simple equations; and in his knowledge of geometry, plane trigonometry, and the elements of surveying.

3. In his knowledge of geography, particularly in reference to the northern continent of America.

4. In his knowledge of the outlines of general history, and particularly the history of his own country.

5. In his knowledge of the Constitution of the United States and the organization of the Government under it, and the elements of international law.

6. The board, having examined into the mental qualifications of each candidate and his moral character and habits, will also inquire into his general qualifications, aptitude, and probable efficiency as an officer of the Army.

7. Physical aptitude, as determined by the medical examination, and other evidence submitted to the board.

V. In awarding marks, the board will give to each subject in the examination the relative weight given in the form following below.

The general average of the candidate will be computed as follows: Mark each question according to its relative weight, and reduce the aggregate of marks thus obtained in each subject to a scale of 100. The result will give the average of proficiency in the subject. Multiply the average in each subject by the number indicating the relative weight of the subject, and divide the sum of the products by the sum of the relative weights; the quotient will be the general average. No candidate will be passsed by the board who shall not have attained an average of 65 per cent in each subject of examination and a general average of at least 70 per cent.

Example.

No.	Subjects.	Averages.	Relative weights.	Products of multiplication by relative weights.
1	English grammar, etc.	82	3	246
2	Mathematics	76	4	304
3	Geography	80	2	160
4	History	73	3	219
5	Constitutional and international law	65	2	130
6	Moral character and probable efficiency	95	3	285
7	Physique	87	3	261
			20	1,605
	General average			80.25

VI. When an examining board shall have passed upon more than one candidate, the order of relative merit of all the candidates examined by the board will be reported.

VII. Boards for the examination of applicants from civil life for appointment to the position of second lieutenant in the Army will be appointed by the Secretary of War, and will consist of five commissioned officers, including two medical officers. The duties of the medical officers will be confined to inquiring into and reporting upon the physical qualifications of the candidates.

The proceedings of the board will be forwarded to the Adjutant-General.

BY COMMAND OF LIEUTENANT-GENERAL MILES:

H. C. CORBIN,
Adjutant-General,
Major-General, U. S. Army.

APPENDIX.

ARTICLES OF WAR.

SECTION 1342, Revised Statutes. The armies of the United States shall be governed by the following rules and articles. The word *officer*, as used therein, shall be understood to designate commissioned officer; the word *soldier* shall be understood to include non-commissioned officers, musicians, artificers, and privates, and other enlisted men; and the convictions mentioned therein shall be understood to be convictions by court-martial.

ARTICLE 1. Every officer now in the Army of the United States shall, within six months from the passing of this act, and every officer hereafter appointed shall, before he enters upon the duties of his office, subscribe these rules and articles.

ART. 2. These rules and articles shall be read to every enlisted man at the time of, or within six days after, his enlistment, and he shall thereupon take an oath or affirmation, in the following form: "I, A B, do solemnly swear (or affirm) that I will bear true faith and allegiance to the United States of America; that I will serve them honestly and faithfully against all their enemies whomsoever; and that I will obey the orders of the President of the United States, and the orders of the officers appointed over me, according to the rules and articles of war." This oath may be taken before any commissioned officer of the Army.

ART. 3. Every officer who knowingly enlists or musters into the military service any minor over the age of 16 years without the written consent of his parents or guardians, or any minor under the age of 16 years, or any insane or intoxicated persons, or any deserter from the military or naval service of the United States, or any person who has been convicted of any infamous criminal offense, shall, upon conviction, be dismissed from the service, or suffer such other punishment as a court-martial may direct.

ART. 4. No enlisted man, duly sworn, shall be discharged from the service without a discharge in writing, signed by a field officer of the regiment to which he belongs, or by the commanding officer, when no field officer is present; and no discharge shall be given to any enlisted man before his term of service has expired, except by order of the President, the Secretary of War, the commanding officer of a department, or by sentence of a general court-martial.

ART. 5. Any officer who knowingly musters as a soldier a person who is not a soldier shall be deemed guilty of knowingly making a false muster, and punished accordingly.

ART. 6. Any officer who takes money, or other thing, by way of gratification, on mustering any regiment, troop, battery, or company, or on signing muster-rolls, shall be dismissed from the service, and shall thereby be disabled to hold any office or employment in the service of the United States.

ART. 7. Every officer commanding a regiment, an independent troop, battery, or company, or a garrison, shall, in the beginning of every month, transmit through the proper channels, to the Department of War, an exact return of the same, specifying the names of the officers then absent from their posts, with the reasons for and the time of their absence. And any officer who, through neglect or design, omits to send such returns, shall, on conviction thereof, be punished as a court-martial may direct.

ART. 8. Every officer who knowingly makes a false return to the Department of War, or to any of his superior officers, authorized to call for such returns, of the state of the regiment, troop, or company, or garrison under his command; or of the arms, ammunition, clothing, or other stores thereunto belonging, shall, on conviction thereof before a court-martial, be cashiered.

ART. 9. All public stores taken from the enemy shall be secured for the service of the United States; and for neglect thereof the commanding officer shall be answerable.

ART. 10. Every officer commanding a troop, battery, or company is charged with the arms, accouterments, ammunition, clothing, or other military stores belonging to his command, and is accountable to his colonel in case of their being lost, spoiled, or damaged otherwise than by unavoidable accident, or on actual service.

ART. 11. Every officer commanding a regiment or an independent troop, battery, or company, not in the field, may, when actually quartered with such command, grant furloughs to the enlisted men, in such numbers and for such time as he shall deem consistent with the good of the service. Every officer commanding a regiment or an independent, troop, battery, or company, in the field, may grant furloughs not exceeding thirty days at one time, to five per centum of the enlisted men, for good conduct in the line of duty, but subject to the approval of the commander of the forces of which said enlisted men form a part. Every company officer of a regiment, commanding any troop, battery, or company, not in the field, or commanding in any garrison, fort, post, or barrack, may, in the absence of his field officer, grant furloughs to the enlisted men, for a time not exceeding twenty days in six months, and not to more than two persons to be absent at the same time.

ART. 12. At every muster of a regiment, troop, battery, or company, the commanding officer thereof shall give to the mustering

officer certificates, signed by himself, stating how long absent officers have been absent and the reasons of their absence. And the commanding officer of every troop, battery, or company shall give like certificates, stating how long absent non-commissioned officers and private soldiers have been absent and the reasons of their absence. Such reasons and time of absence shall be inserted in the muster-rolls opposite the names of the respective absent officers and soldiers, and the certificates, together with the muster-rolls, shall be transmitted by the mustering officer to the Department of War, as speedily as the distance of the place and muster will admit.

ART. 13. Every officer who signs a false certificate, relating to the absence or pay of an officer or soldier, shall be dismissed from the service.

ART. 14. Any officer who knowingly makes a false muster of man or horse, or who signs, or directs, or allows the signing of any muster-roll, knowing the same to contain a false muster, shall, upon proof thereof, by two witnesses, before a court-martial, be dismissed from the service, and shall thereby be disabled to hold any office or employment in the service of the United States.

ART. 15. Any officer who, wilfully or through neglect, suffers to be lost, spoiled, or damaged any military stores belonging to the United States shall make good the loss or damage, and be dismissed from the service.

ART. 16. Any enlisted man who sells or wilfully or through neglect wastes the ammunition delivered out to him shall be punished as a court-martial may direct.

ART. 17 Any soldier who sells or through neglect loses or spoils his horse, arms, clothing, or accouterments shall be punished as a court-martial may adjudge, subject to such limitation as may be prescribed by the President by virtue of the power vested in him. [Act approved July 27, 1892.]

ART. 18. Any officer commanding in any garrison, fort, or barracks of the United States who, for his private advantage, lays any duty or imposition upon, or is interested in, the sale of any victuals, liquors, or other necessaries of life, brought into such garrison, fort, or barracks, for the use of the soldiers, shall be dismissed from the service.

ART. 19. Any officer who uses contemptuous or disrespectful words against the President, the Vice-President, the Congress of the United States, or the chief magistrate or legislature of any of the United States in which he is quartered, shall be dismissed from the service, or otherwise punished, as a court-martial may direct. Any soldier who so offends shall be punished as a court-martial may direct.

ART. 20. Any officer or soldier who behaves himself with disrespect towards his commanding officer shall be punished as a court-martial may direct.

ART. 21. Any officer or soldier who, on any pretense whatsoever, strikes his superior officer, or draws or lifts up any weapon, or offers any violence against him, being in the execution of his office, or disobeys any lawful command of his superior officer, shall suffer death, or such other punishment as a court-martial may direct.

ART. 22. Any officer or soldier who begins, excites, causes, or joins in any mutiny, or sedition, in any troop, battery, company, party, post, detachment, or guard, shall suffer death, or such other punishment as a court-martial may direct.

ART. 23. Any officer or soldier who, being present at any mutiny or sedition, does not use his utmost endeavor to suppress the same, or having knowledge of any intended mutiny or sedition, does not, without delay, give information thereof to his commanding officer, shall suffer death, or such other punishment as a court-martial may direct.

ART. 24. All officers, of what condition soever, have power to part and quell all quarrels, frays, and disorders, whether among persons belonging to his own or to another corps, regiment, troop, battery, or company, and to order officers into arrest, and non-commissioned officers and soldiers into confinement, who take part in the same, until their proper superior officer is acquainted therewith. And whosoever, being so ordered, refuses to obey such officer or non-commissioned officer, or draws a weapon upon him, shall be punished as a court-martial may direct.

ART. 25. No officer or soldier shall use any reproachful or provoking speeches or gestures to another. Any officer who so offends shall be put in arrest. Any soldier who so offends shall be confined, and required to ask pardon of the party offended, in the presence of his commanding officer.

ART. 26. No officer or soldier shall send a challenge to another officer or soldier to fight a duel, or accept a challenge so sent. Any officer who so offends shall be dismissed from the service. Any soldier who so offends shall suffer such punishment as a court-martial may direct.

ART. 27. Any officer or non-commissioned officer, commanding a guard, who, knowingly and willingly, suffers any person to go forth to fight a duel, shall be punished as a challenger; and all seconds or promoters of duels, and carriers of challenges to fight duels, shall be deemed principals, and punished accordingly. It shall be the duty of any officer commanding an army, regiment, troop, battery, company, post, or detachment, who knows or has reason to believe that a challenge has been given or accepted by any officer or enlisted man under his command, immediately to arrest the offender and bring him to trial.

ART. 28. Any officer or soldier who upbraids another officer or soldier for refusing a challenge shall himself be punished as a challenger; and all officers and soldiers are hereby discharged from any

disgrace or opinion of disadvantage which might arise from their having refused to accept challenges, as they will only have acted in obedience to the law, and have done their duty as good soldiers, who subject themselves to discipline.

ART. 29. Any officer who thinks himself wronged by the commanding officer of his regiment, and, upon due application to such commander, is refused redress, may complain to the general commanding in the State or Territory where such regiment is stationed. The general shall examine into said complaint and take proper measures for redressing the wrong complained of; and he shall, as soon as possible, transmit to the Department of War a true statement of such complaint, with the proceedings had thereon.

ART. 30. Any soldier who thinks himself wronged by any officer may complain to the commanding officer of his regiment, who shall summon a regimental court-martial for the doing of justice to the complainant. Either party may appeal from such regimental court-martial to a general court-martial; but if, upon such second hearing, the appeal appears to be groundless and vexatious, the party appealing shall be punished at the discretion of said general court-martial.

ART. 31. Any officer or soldier who lies out of his quarters, garrison, or camp, without leave from his superior officer, shall be punished as a court-martial may direct.

ART. 32. Any soldier who absents himself from his troop, battery, company, or detachment, without leave from his commanding officer, shall be punished as a court-martial may direct.

ART. 33. Any officer or soldier who fails, except when prevented by sickness or other necessity, to repair, at the fixed time, to the place of parade, exercise, or other rendezvous appointed by his commanding officer, or goes from the same, without leave from his commanding officer, before he is dismissed or relieved, shall be punished as a court-martial may direct.

ART. 34. Any soldier who is found one mile from camp, without leave in writing from his commanding officer, shall be punished as a court-martial may direct.

ART. 35. Any soldier who fails to retire to his quarters or tent at the beating of retreat shall be punished according to the nature of his offense.

ART. 36. No soldier belonging to any regiment, troop, battery, or company shall hire another to do his duty for him, or be excused from duty, except in cases of sickness, disability, or leave of absence. Every such soldier found guilty of hiring his duty, and the person so hired to do another's duty, shall be punished as a court-martial may direct.

ART. 37. Every non-commissioned officer who connives at such hiring of duty shall be reduced. Every officer who knows and allows such practices shall be punished as a court-martial may direct,

ART. 38. Any officer who is found drunk on his guard, party, or other duty shall be dismissed from the service. Any soldier who so offends shall suffer such punishment as a court-martial may direct. No court-martial shall sentence any soldier to be branded, marked, or tatooed.

ART. 39. Any sentinel who is found sleeping upon his post, or who leaves it before he is regularly relieved, shall suffer death, or such other punishment as a court-martial may direct.

ART. 40. Any officer or soldier who quits his guard, platoon, or division, without leave from his superior officer, except in a case of urgent necessity, shall be punished as a court-martial may direct.

ART. 41. Any officer who, by any means whatsoever, occasions false alarms in camp, garrison, or quarters, shall suffer death, or such other punishment as a court-martial may direct.

ART. 42. Any officer or soldier who misbehaves himself before the enemy, runs away, or shamefully abandons any fort, post, or guard which he is commanded to defend, or speaks words inducing others to do the like, or casts away his arms or ammunition, or quits his post or colors to plunder or pillage, shall suffer death, or such other punishment as a court-martial may direct.

ART. 43. If any commander of any garrison, fortress, or post is compelled, by the officers and soldiers under his command, to give up to the enemy or to abandon it, the officers or soldiers so offending shall suffer death, or such other punishment as a court-martial may direct.

ART. 44. Any person belonging to the armies of the United States who makes known the watchword to any person not entitled to receive it, according to the rules and discipline of war, or presumes to give a parole or watchword different from that which he received, shall suffer death, or such other punishment as a court-martial may direct.

ART. 45. Whosoever relieves the enemy with money, victuals, or ammunition, or knowingly harbors or protects an enemy, shall suffer death, or such other punishment as a court-martial may direct.

ART. 46. Whosoever holds correspondence with, or gives intelligence to, the enemy, either directly or indirectly, shall suffer death, or such other punishment as a court-martial may direct.

ART. 47. Any officer or soldier who, having received pay, or having been duly enlisted in the service of the United States, deserts the same, shall, in time of war, suffer death, or such other punishment as a court-martial may direct; and in time of peace, any punishment, excepting death, which a court-martial may direct.

ART. 48. Every soldier who deserts the service of the United States shall be liable to serve for such period as shall, with the time he may have served previous to his desertion, amount to the full term of his enlistment; and such soldier shall be tried by a court-martial and

punished, although the term of his enlistment may have elapsed previous to his being apprehended and tried.

ART. 49. Any officer who, having tendered his resignation, quits his post or proper duties, without leave, and with intent to remain permanently absent therefrom, prior to due notice of the acceptance of the same, shall be deemed and punished as a deserter.

ART. 50. No non-commissioned officer or soldier shall enlist himself in any other regiment, troop, or company, without a regular discharge from the regiment, troop, or company in which he last served, on a penalty of being reputed a deserter, and suffering accordingly. And in case any officer shall knowingly receive and entertain such non-commissioned officer or soldier, or shall not, after his being discovered to be a deserter, immediately confine him and give notice thereof to the corps in which he last served, the said officer shall, by a court-martial, be cashiered.

ART. 51. Any officer or soldier who advises or persuades any other officer or soldier to desert the service of the United States shall, in time of war, suffer death, or such other punishment as a court-martial may direct; and in time of peace, any punishment, excepting death, which a court-martial may direct.

ART. 52. It is earnestly recommended to all officers and soldiers diligently to attend divine service. Any officer who behaves indecently or irreverently at any place of divine worship shall be brought before a general court-martial, there to be publicly and severely reprimanded by the president thereof. Any soldier who so offends shall, for his first offense, forfeit one-sixth of a dollar; for each further offense he shall forfeit a like sum, and shall be confined twenty-four hours. The money so forfeited shall be deducted from his next pay, and shall be applied, by the captain or senior officer of his troop, battery, or company, to the use of the sick soldiers of the same.

ART. 53. Any officer who uses any profane oath or execration shall, for each offense, forfeit and pay one dollar. Any soldier who so offends shall incur the penalties provided in the preceding article; and all moneys forfeited for such offenses shall be applied as therein provided.

ART. 54. Every officer commanding in quarters, garrison, or on the march shall keep good order, and, to the utmost of his power, redress all abuses or disorders which may be committed by any officer or soldier under his command; and if, upon complaint made to him of officers or soldiers beating or otherwise ill-treating any person, disturbing fairs or markets, or committing any kind of riot, to the disquieting of the citizens of the United States, he refuses or omits to see justice done to the offender, and reparation made to the party injured, so far as part of the offender's pay shall go toward such reparation, he shall be dismissed from the service, or otherwise punished as a court-martial may direct.

ART. 55. All officers and soldiers are to behave themselves orderly in quarters and on the march; and whoever commits any waste or spoil, either in walks or trees, parks, warrens, fish-ponds, houses, gardens, grain-fields, enclosures, or meadows, or maliciously destroys any property whatsoever belonging to inhabitants of the United States (unless by order of a general officer commanding a separate army in the field), shall, besides such penalties as he may be liable to by law, be punished as a court-martial may direct.

ART. 56. Any officer or soldier who does violence to any person bringing provisions or other necessaries to the camp, garrison, or quarters of the forces of the United States in foreign parts shall suffer death, or such other punishment as a court-martial may direct.

ART. 57. Whosoever, belonging to the armies of the United States in foreign parts, or at any place within the United States or their Territories, during rebellion against the supreme authority of the United States, forces a safeguard, shall suffer death.

ART. 58. In time of war, insurrection, or rebellion, larceny, robbery, burglary, arson, mayhem, manslaughter, murder, assault and battery with an intent to kill, wounding, by shooting or stabbing, with an intent to commit murder, rape, or assault and battery with an intent to commit rape, shall be punishable by the sentence of a general court-martial, when committed by persons in the military service of the United States, and the punishment in any such case shall not be less than the punishment provided for the like offense by the laws of the State, Territory, or district in which such offense may have been committed.

ART. 59. When an officer or soldier is accused of a capital crime, or of any offense against the person or property of any citizen of any of the United States, which is punishable by the laws of the land, the commanding officer, and the officers of the regiment, troop, battery, company, or detachment to which the person so accused belongs, are required, except in time of war, upon application duly made by or in behalf of the party injured, to use their utmost endeavors to deliver him over to the civil magistrate, and to aid the officers of justice in apprehending and securing him, in order to bring him to trial. If, upon such application, any officer refuses or wilfully neglects, except in time of war, to deliver over such accused person to the civil magistrates, or to aid the officers of justice in apprehending him, he shall be dismissed from the service.

ART. 60. Any person in the military service of the United States who makes or causes to be made any claim against the United States, or any officer thereof, knowing such claim to be false or fraudulent; or

Who presents or causes to be presented to any person in the civil or military service thereof, for approval or payment, any claim against

the United States or any officer thereof, knowing such claim to be false or fraudulent; or

Who enters into any agreement or conspiracy to defraud the United States by obtaining, or aiding others to obtain, the allowance or payment of any false or fraudulent claim; or

Who, for the purpose of obtaining, or aiding others to obtain, the approval, allowance, or payment of any claim against the United States or against any officer thereof, makes or uses, or procures or advises the making or use of, any writing, or other paper, knowing the same to contain any false or fraudulent statement; or

Who, for the purpose of obtaining, or aiding others to obtain, the approval, allowance, or payment of any claim against the United States, or any officer thereof, makes, or procures, or advises the making of any oath to any fact, or to any writing or other paper, knowing such oath to be false; or

Who, for the purpose of obtaining, or aiding others to obtain, the approval, allowance, or payment of any claim against the United States, or any officer thereof, forges or counterfeits, or procures or advises the forging or counterfeiting of, any signature upon any writing or other paper, or uses, or procures or advises the use of, any such signature, knowing the same to be forged or counterfeited; or

Who, having charge, possession, custody, or control of any money or other property of the United States, furnished or intended for the military service thereof, knowingly delivers, or causes to be delivered, to any person having authority to receive the same, any amount thereof less than that for which he receives a certificate or receipt; or

Who, being authorized to make or deliver any paper certifying the receipt of any property of the United States, furnished or intended for the military service thereof, makes, or delivers to any person, such writing, without having full knowledge of the truth of the statements therein contained, and with intent to defraud the United States; or

Who steals, embezzles, knowingly and wilfully misappropriates, applies to his own use or benefit, or wrongfully or knowingly sells or disposes of any ordnance, arms, equipments, ammunition, clothing, subsistence stores, money, or other property of the United States, furnished or intended for the military service thereof; or

Who knowingly purchases, or receives in pledge for any obligation or indebtedness, from any soldier, officer, or other person who is a part of or employed in said forces or service, any ordnance, arms, equipments, ammunition, clothing, subsistence stores, or other property of the United States, such soldier, officer, or other person not having lawful right to sell or pledge the same,

Shall, on conviction thereof, be punished by fine or imprisonment, or by such other punishment as a court-martial may adjudge. And if any person, being guilty of any of the offenses aforesaid, while

in the military service of the United States, receives his discharge, or is dismissed from the service, he shall continue to be liable to be arrested and held for trial and sentence by a court-martial, in the same manner and to the same extent as if he had not received such discharge nor been dismissed.

ART. 61. Any officer who is convicted of conduct unbecoming an officer and a gentleman shall be dismissed from the service.

ART. 62. All crimes not capital, and all disorders and neglects, which officers and soldiers may be guilty of, to the prejudice of good order and military discipline, though not mentioned in the foregoing articles of war, are to be taken cognizance of by a general, or a regimental, garrison, or field officers' court-martial, according to the nature and degree of the offense, and punished at the discretion of such court.

ART. 63. All retainers to the camp, and all persons serving with the armies of the United States in the field, though not enlisted soldiers, are to be subject to orders, according to the rules and discipline of war.

ART. 64. The officers and soldiers of any troops, whether militia or others, mustered and in pay of the United States, shall, at all times and in all places, be governed by the Articles of War, and shall be subject to be tried by courts-martial.

ART. 65. Officers charged with crime shall be arrested and confined in their barracks, quarters, or tents, and deprived of their swords by the commanding officer. And any officer who leaves his confinement before he is set at liberty by his commanding officer shall be dismissed from the service.

ART. 66. Soldiers charged with crimes shall be confined until tried by court-martial, or released by proper authority.

ART. 67. No provost marshal, or officer commanding a guard, shall refuse to receive or keep any prisoner committed to his charge by an officer belonging to the forces of the United States; provided, the officer committing shall, at the same time, deliver an account in writing, signed by himself, of the crime charged against the prisoner.

ART. 68. Every officer to whose charge a prisoner is committed shall, within twenty-four hours after such commitment, or as soon as he is relieved from his guard, report in writing, to the commanding officer, the name of such prisoner, the crime charged against him, and the name of the officer committing him; and if he fails to make such report, he shall be punished as a court-martial may direct.

ART. 69. Any officer who presumes, without proper authority, to release any prisoner committed to his charge, or suffers any prisoner so committed to escape, shall be punished as a court-martial may direct.

ART. 70. No officer or soldier put in arrest shall be continued in confinement more than eight days, or until such time as a court-martial can be assembled.

ART. 71. When an officer is put in arrest for the purpose of trial, except at remote military posts or stations, the officer by whose order he is arrested shall see that a copy of the charges on which he is to be tried is served upon him within eight days after his arrest, and that he is brought to trial within ten days thereafter, unless the necessities of the service prevent such trial; and then he shall be brought to trial within thirty days after the expiration of said ten days. If a copy of the charges be not served, or the arrested officer be not brought to trial, as herein required, the arrest shall cease. But officers released from arrest, under the provisions of this article, may be tried, whenever the exigencies of the service shall permit, within twelve months after such release from arrest.

ART. 72. Any general officer commanding an army, a territorial division, or a department, or colonel commanding a separate department, may appoint general courts-martial whenever necessary. But when any such commander is the accuser or prosecutor of any officer under his command, the court shall be appointed by the President; and its proceedings and sentence shall be sent directly to the Secretary of War, by whom they shall be laid before the President, for his approval or orders in the case. [Act approved July 5, 1884.]

ART. 73. In time of war the commander of a division, or of a separate brigade of troops, shall be competent to appoint a general court-martial. But when such commander is the accuser or prosecutor of any person under his command, the court shall be appointed by the next higher commander.

ART. 74. Officers who may appoint a court-martial shall be competent to appoint a judge-advocate for the same.

ART. 75. General courts-martial may consist of any number of officers from five to thirteen, inclusive; but they shall not consist of less than thirteen when that number can be convened without manifest injury to the service.

ART. 76. When the requisite number of officers to form a general court-martial is not present in any post or detachment, the commanding officer shall, in cases which require the cognizance of such a court, report to the commanding officer of the department, who shall thereupon order a court to be assembled at the nearest post or department at which there may be such a requisite number of officers, and shall order the party accused, with necessary witnesses, to be transported to the place where the said court shall be assembled.

ART. 77. Officers of the regular Army shall not be competent to sit on courts-martial to try the officers or soldiers of other forces, except as provided in Article 78.

ART. 78. Officers of the Marine Corps, detached for service with the Army by order of the President, may be associated with officers of the regular Army on courts-martial for the trial of offenders belonging to the regular Army, or to forces of the Marine Corps

so detached; and in such cases the orders of the senior office for either corps, who may be present and duly authorized, shall be obeyed.

ART. 79. Officers shall be tried only by general courts-martial; and no officer shall, when it can be avoided, be tried by officers inferior to him in rank.

ART. 80. In time of war a field officer may be detailed in every regiment, to try soldiers thereof of offenses not capital; and no soldier serving with his regiment shall be tried by a regimental or garrison court-martial when a field officer of his regiment may be so detailed.

ART. 81. Every officer commanding a regiment or corps shall, subject to the provisions of Article 80, be competent to appoint, for his own regiment or corps, courts-martial, consisting of three officers, to try offenses not capital.

ART. 82. Every officer commanding a garrison, fort, or other place, where the troops consist of different corps, shall, subject to the provisions of Article 80, be competent to appoint, for such garrison or other place, courts-martial, consisting of three officers, to try offenses not capital.

ART. 83. Regimental and garrison courts-martial, and field officers detailed to try offenders, shall not have power to try capital cases or commissioned officers, or to inflict a fine exceeding one month's pay, or to imprison or put to hard labor any non-commissioned officer or soldier for a longer time than one month.

ART. 84. The judge-advocate shall administer to each member of the court, before they proceed upon any trial, the following oath, which shall also be taken by all members of regimental and garrison courts-martial: "You, A B, do swear that you will well and truly try and determine, according to evidence, the matter now before you, between the United States of America and the prisoner to be tried, and that you will duly administer justice, without partiality, favor, or affection, according to the provisions of the rules and articles for the government of the armies of the United States, and if any doubts should arise, not explained by said articles, then according to your conscience, the best of your understanding, and the custom of war in like cases; and you do further swear that you will not divulge the sentence of the court until it shall be published by the proper authority, except to the judge-advocate; neither will you disclose or discover the vote or opinion of any particular member of the court-martial, unless required to give evidence thereof, as a witness, by a court of justice, in due course of law? So help you God." [Act approved July 27, 1892.]

ART. 85. When the oath has been administered to the members of a court-martial, the president of the court shall administer to the judge-advocate, or person officiating as such, an oath in the following form: "You, A B, do swear that you will not disclose or discover the vote or opinion of any particular member of the court-

martial, unless required to give evidence thereof, as a witness, by a court of justice, in due course of law; nor divulge the sentence of the court to any but the proper authority, until it shall be duly disclosed by the same? So help you God."

ART. 86. The court-martial may punish, at discretion, any person who uses any menacing words, signs, or gestures in its presence, or who disturbs its proceedings by any riot or disorder.

ART. 87. All members of a court-martial are to behave with decency and calmness.

ART. 88. Members of a court-martial may be challenged by a prisoner, but only for a cause stated to the court. The court shall determine the relevancy and validity thereof, and shall not receive a challenge to more than one member at a time.

ART. 89. When a prisoner, arraigned before a general court-martial, from obstinacy and deliberate design, stands mute, or answers foreign to the purpose, the court may proceed to trial and judgment, as if the prisoner had pleaded not guilty.

ART. 90. The judge-advocate, or some person deputed by him, or by the general or officer commanding the army, detachment, or garrison, shall prosecute in the name of the United States; but when the prisoner has made his plea, he shall so far consider himself counsel for the prisoner as to object to any leading question to any of the witnesses, and to any question to the prisoner the answer to which might tend to criminate himself.

ART. 91. The deposition of witnesses residing beyond the limits of the State, Territory, or district in which any military court may be ordered to sit, if taken on reasonable notice to the opposite party and duly authenticated, may be read in evidence before such court in cases not capital.

ART. 92. All persons who give evidence before a court-martial shall be examined on oath, or affirmation, in the following form: "You swear (or affirm) that the evidence you shall give, in the case now in hearing, shall be the truth, the whole truth, and nothing but the truth? So help you God."

ART. 93. A court-martial shall, for reasonable cause, grant a continuance to either party, for such time, and as often as may appear to be just: *Provided*, That if the prisoner be in close confinement, the trial shall not be delayed for a period longer than sixty days.

ART. 94. Proceedings of trials shall be carried on only between the hours of eight in the morning and three in the afternoon, excepting in cases which, in the opinion of the officer appointing the court, require immediate example.

ART. 95. Members of a court-martial, in giving their votes, shall begin with the youngest in commission.

ART. 96. No person shall be sentenced to suffer death, except by the concurrence of two-thirds of the members of a general court-martial, and in the cases herein expressly mentioned.

ART. 97. No person in the military service shall, under the sentence of a court-martial, be punished by confinement in a penitentiary, unless the offense of which he may be convicted would, by some statute of the United States, or by some statute of the State, Territory, or district in which such offense may be committed, or by the common law, as the same exists in such State, Territory, or district, subject such convict to such punishment

ART. 98. No person in the military service shall be punished by flogging, or by branding, marking, or tattooing on the body.

ART. 99. No officer shall be discharged or dismissed from the service, except by order of the President, or by sentence of a general court-martial; and in time of peace no officer shall be dismissed, except in pursuance of the sentence of a court-martial, or in mitigation thereof.

ART. 100. When an officer is dismissed from the service for cowardice or fraud, the sentence shall further direct that the crime, punishment, name, and place of abode of the delinquent shall be published in the newspapers in and about the camp, and in the State from which the offender came, or where he usually resides; and after such publication it shall be scandalous for an officer to associate with him.

ART. 101. When a court-martial suspends an officer from command, it may also suspend his pay and emoluments for the same time, according to the nature of his offense.

ART. 102. No person shall be tried a second time for the same offense.

ART. 103. No person shall be liable to be tried and punished by a general court-martial for any offense which appears to have been committed more than two years before the issuing of the order for such trial, unless, by reason of having absented himself, or of some other manifest impediment, he shall not have been amenable to justice within that period.

No person shall be tried or punished by a court-martial for desertion in time of peace and not in the face of an enemy, committed more than two year before the arraignment of such person for such offense, unless he shall meanwhile have absented himself from the United States, in which case the time of his absence shall be excluded in computing the period of the limitation: *Provided*, That said limitation shall not begin until the end of the term for which said person was mustered into the service. [Act approved April 11, 1890.]

ART. 104. No sentence of a court-martial shall be carried into execution until the same shall have been approved by the officer

ordering the court, or by the officer commanding for the time being. [Act approved July 27, 1892.]

ART. 105. No sentence of a court-martial inflicting the punishment of death shall be carried into execution until it shall have been confirmed by the President; except in the cases of persons convicted, in time of war, as spies, mutineers, deserters, or murderers, and in the cases of guerrilla marauders, convicted, in time of war, of robbery, burglary, arson, rape, assault with intent to commit rape, or of violation of the laws and customs of war; and in such excepted case the sentence of death may be carried into execution upon confirmation by the commanding general in the field, or the commander of the department, as the case may be.

ART. 106. In time of peace no sentence of a court-martial, directing the dismissal of an officer, shall be carried into execution until it shall have been confirmed by the President.

ART. 107. No sentence of a court-martial appointed by the commander of a division or of a separate brigade of troops, directing the dismissal of an officer, shall be carried into execution until it shall have been confirmed by the general commanding the army in the field to which the division or brigade belongs.

ART. 108. No sentence of a court-martial, either in time of peace or in time of war, respecting a general officer, shall be carried into execution until it shall have been confirmed by the President.

ART. 109. All sentences of a court-martial may be confirmed and carried into execution by the officer ordering the court, or by the officer commanding for the time being, where confirmation by the President, or by the commanding general in the field, or commander of the department, is not required by the articles.

ART. 110. No sentence adjudged by a field officer, detailed to try soldiers of his regiment, shall be carried into execution until the same shall have been approved by the brigade commander, or, in case there be no brigade commander, by the commanding officer of the post or camp. [Act approved July 27, 1892.]

ART. 111. Any officer who has authority to carry into execution the sentence of death, or of dismissal of an officer, may suspend the same until the pleasure of the President shall be known; and, in such case, he shall immediately transmit to the President a copy of the order of suspension, together with a copy of the proceedings of the court.

ART. 112. Every officer who is authorized to order a general court-martial shall have power to pardon or mitigate any punishment adjudged by it, except the punishment of death or of dismissal of an officer. Every officer commanding a regiment or garrison in which a regimental or garrison court-martial may be held, shall have power to pardon or mitigate any punishment which such court may adjudge.

ART. 113. Every judge-advocate, or person acting as such, at any general court-martial, shall, with as much expedition as the opportunity of time and distance of place may admit, forward the original proceedings and sentence of such court to the judge-advocate-general of the Army, in whose office they shall be carefully preserved.

ART. 114. Every party tried by a general court-martial shall, upon demand thereof, made by himself or by any person in his behalf, be entitled to a copy of the proceedings and sentence of such court.

ART. 115. A court of inquiry, to examine into the nature of any transaction of, or accusation or imputation against, any officer or soldier, may be ordered by the President or by any commanding officer; but, as courts of inquiry may be perverted to dishonorable purposes, and may be employed, in the hands of weak and envious commandants, as engines for the destruction of military merit, they shall never be ordered by any commanding officer, except upon a demand by the officer or soldier whose conduct is to be inquired of.

ART. 116. A court of inquiry shall consist of one or more officers, not exceeding three, and a recorder, to reduce the proceedings and evidence to writing.

ART. 117. The recorder of a court of inquiry shall administer to the members the following oath: "You shall well and truly examine and inquire, according to the evidence, into the matter now before you, without partiality, favor, affection, prejudice, or hope of reward? So help you God." After which the president of the court shall administer to the recorder the following oath: "You, A B, do swear that you will, according to your best abilities, accurately and impartially record the proceedings of the court and the evidence to be given in the case in hearing? So help you God."

ART. 118. A court of inquiry, and the recorder thereof, shall have the same power to summon and examine witnesses as is given to courts-martial and the judge-advocates thereof. Such witnesses shall take the same oath which is taken by witnesses before courts-martial, and the party accused shall be permitted to examine and cross-examine them, so as fully to investigate the circumstances in question.

ART. 119. A court of inquiry shall not give an opinion on the merits of the case inquired of unless specially ordered to do so.

ART. 120. The proceedings of a court of inquiry must be authenticated by the signatures of the recorder and the president thereof, and delivered to the commanding officer.

ART. 121. The proceedings of a court of inquiry may be admitted as evidence by a court-martial, in cases not capital, nor extending to the dismissal of an officer: *Provided*, That the circumstances are such that oral testimony cannot be obtained.

ART. 122. If, upon marches, guards, or in quarters, different corps of the Army happen to join or do duty together, the officer highest in rank of the line of the Army, Marine Corps, or Militia, by commission, there on duty or in quarters, shall command the whole, and give orders for what is needful to the service, unless otherwise specially directed by the President, according to the nature of the case.

ART. 123. In all matters relating to the rank, duties, and rights of officers, the same rules and regulations shall apply to officers of the regular Army and to volunteers commissioned in or mustered into said service under the laws of the United States, for a limited period.

ART. 124. Officers of the Militia of the several States, when called into the service of the United States, shall on all detachments, courts-martial, and other duty wherein they may be employed in conjunction with the regular or volunteer forces of the United States, take rank next after all officers of the like grade in said regular or volunteer forces, notwithstanding the commissions of such militia officers may be older than the commissions of the said officers of the regular or volunteer forces of the United States.

ART. 125. In case of the death of an officer, the major of his regiment, or the officer doing the major's duty, or the second officer in command at any post or garrison, as the case may be, shall immediately secure all his effects then in camp or quarters, and shall make, and transmit to the office of the Department of War, an inventory thereof.

ART. 126. In case of the death of any soldier, the commanding officer of his troop, battery, or company shall immediately secure all his effects then in camp or quarters, and shall, in the presence of two other officers, make an inventory thereof, which he shall transmit to the office of the Department of War.

ART. 127. Officers charged with the care of the effects of deceased officers or soldiers shall account for and deliver the same, or the procceds thereof, to the legal representativs of such deceased officers or soldiers. And no officer so charged shall be permitted to quit the regiment or post until he has deposited in the hands of the commanding officer all the effects of such deceased officers or soldiers not so accounted for and delivered.

ART. 128. The foregoing articles shall be read and published, once in every six months, to every garrison, regiment, troop, or company in the service of the United States, and shall be duly observed and obeyed by all officers and soldiers in said service.

SEC. 1343, Revised Statutes. All persons who, in time of war, or of rebellion against the supreme authority of the United States, shall be found lurking or acting as spies in or about any of the fortifications, posts, quarters, or encampments of any of the armies of the United States, or elsewhere, shall be triable by a general court-martial, or by a military commission, and shall, on conviction thereof, suffer death.

MILITARY RECORDS.

The War Department requires that the records named below shall be thoroughly understood by all graduating cadets at military institutions, because they show how the soldier enters and leaves the Army, how he is accounted for, paid, fed, clothed, armed, and how his military duties are regulated. These forms, with the notes attached to them, should be carefully studied.

1. Enlistment and Discharge papers, including Descriptive Lists.
2. Morning Report.
3. Monthly and Field Return.
4. Muster Roll.
5. Ration Return.
6. Requisitions.
7. Property Return.

THE UNITED STATES OF AMERICA.

STATE OF..... .... }
City or Town of..... } ss.

I,....., born in....., in the State of..... ... , aged... .....years and..... months, and by occupation a....., DO HEREBY ACKNOWLEDGE to have voluntarily....enlisted this..... day of....., 190.., as a SOLDIER in the ARMY OF THE UNITED STATES OF AMERICA, for the period of THREE YEARS, unless sooner discharged by proper authority: And do also agree to accept from the United States such bounty, pay, rations, and clothing as are or may be established by law. And I do solemnly swear (or affirm) that I will bear true faith and allegiance to the United States of America, and that I will serve them honestly and faithfully against all their enemies whomsoever; and that I will obey the orders of the President of the United States, and the orders of the officers appointed over me, according to the Rules and Articles of War.

*.....[SEAL.]

Subscribed and duly sworn to before me this .....day of ....A. D. 190...

.....

.....

Recruiting Officer.

I CERTIFY that I have carefully examined the above-named man agreeably to the General Regulations of the Army, and that, in my opinion, he is free from all bodily defects and mental infirmity which would, in any way, disqualify him from performing the duties of a soldier.

....

....

Examining Officer.

I CERTIFY that I have minutely inspected the above-named man, ...previous to his .. enlistment, and that he was entirely sober when enlisted; that, to the best of my judgment and belief, he fulfills all legal requirements; and that I have accepted and enlisted him into the service of the United States under this contract of enlistment as duly qualified to perform the duties of an able-bodied soldier, and, in doing so, have strictly observed the regulations which govern the Recruiting service. This soldier has ... .eyes, ...hair, ...complexion, is..... feet. ..... inches high.

....[SEAL.]

.....

(A. G. O., No. 11, March 18, 1898.) Recruiting Officer.

*NOTE.—The Christian name must not be abbreviated, but if it consists of more than one name, only the first will be written and signed in full.

NOTE.—Indelible or permanent marks found upon the person of a Recruit will be here noted:.....

.....

DECLARATION OF RECRUIT.

I, ..., ..., desiring to ENLIST in the ARMY OF THE UNITED STATES for the term of THREE YEARS, DO DECLARE that I have neither wife nor child; that I am of the legal age to enlist, and believe myself to be physically qualified to perform the duties of an able-bodied soldier; and I do further declare that I am of good habits and character in all respects, and have never been discharged from the United States service (Army or Navy) or any other service on account of disability, or through sentence of either civil or military court, nor discharged from any service, civil or military, except with good character, and for the reasons given by me to the recruiting officer prior to this enlistment.*

.....

Given at.....this... ... day of.....,190..

Witness: ....

*Here add in case of an applicant for first enlistment: And that I am (or have made legal declaration of my intention to become) a citizen of the United States.

Residence of Soldier: .....

Name and address of person to be notified in case of emergency, giving degree of relationship; if friend, so state:

.....

.....enlisted at.....on the.....day of.....,190.., by.....Regt. of.....

.....enlistment; last served in.....Regiment of.....Discharged.....190..

DIRECTIONS.

One enlistment paper only will be made in the case of a soldier enlisted or re-enlisted for the line of the Army. It will be forwarded to the Adjutant-General with the recruiting officer's trimonthly report. The recruiting officer will indorse on the enlistment paper of every general service recruit (in red ink, at top of second fold) the arm of service for which the soldier was enlisted: *i. e.*, either foot service, white; mounted service, white; foot service, colored; or mounted service, colored.

Enlistment papers of soldiers of a staff department will be executed and disposed of in accordance with the regulations governing enlistments for the particular staff department concerned. (Cir. 3 War Depe., A. G. O., 1899, pars. 3, 4, 7 and 8.)

In cases of re-enlistment, *i. e.*, within three months from date of last discharge from the Army, the declaration of recruit will not be filled in, but it will be stated on the margin whether the soldier is single or married and the number of children, if any. The name and address of person to be notified in case of emergency will also be given. The prefix "re" will be added to the word "enlisted" where it occurs.

Assigned to.....Regiment of....., U. S. Army.

CONSENT IN CASE OF MINOR.

I,....., DO CERTIFY that I am the ..... of.....; that the said .....is..... ..... years of age; and I do hereby freely give my CONSENT to his enlisting as a SOLDIER in the ARMY OF THE UNITED STATES for the period of THREE YEARS.

Given at.....this.....day of.....,190..

Witness: ... .

DESCRIPTION, PHYSICAL RECORD, AND ENLISTMENT.

VOLUNTEERS.

Regiment ....Company (" ").

Name:..... ..... Grade or rank,.....

Age:... ....years.....months. Height, ...feet.....inches.

Complexion,..... Eyes,.....; hair,..... Born at.....,

County of.....,State of..... Occupation,..... . Enrolled on

the.....day of.. ....., 19.., at....., in the State of..... ....,

by....., for..... years. Residence,..... Married or

single,..... ... Name of wife, relative, guardian, or friend who

is to be notified in case of emergency:.....

Address of same:..... .... Previous military or naval

service (not militia):..... .....

Remarks:.....

....

.....

Recruiting Officer.

PHYSICAL RECORD.

Personal marks: ....

Chest: expiration, inches.....; inspiration, inches.....

Weight, stripped,.....lbs. Piles,..... Rheumatism,.....

Varicose veins,.....Varicocele,..... Coughs,..... Hernia,

..... Feet,..... Previous sickness,..... Eyes, ...

Hearing,..... Heart,..... Teeth,..... ....

Remarks:* .....

I CERTIFY that this man is a fit subject for military service.

....

.....

Examining Surgeon.

*All defects discovered in the medical examination, not sufficient to reject, but which might be aggravated by the soldier's duties, will be here noted.

*I, ..., do hereby acknowledge to have voluntarily enlisted this ..... day of....., 19... as a SOLDIER in the VOLUNTEER ARMY OF THE UNITED STATES OF AMERICA for the period of two years, unless sooner discharged by proper authority; and do also agree to accept from the United States such bounty, pay, rations, and clothing as are or may be established by law. And I do solemnly swear (or affirm) that I will bear true faith and allegiance to the United States of America, and that I will serve them honestly and faithful against all their enemies whomsoever; and that I will obey the orders of the President of the United States and the orders of the officers appointed over me, according to the Rules and Articles of War.

..... [SEAL.]

Subscribed and duly sworn to before me this.....day of ....., A. D. 19...

.....

.....

Recruiting Officer.

*NOTE.—The acknowledgment and oath will not be executed until the man has been accepted by the Examining Surgeon, nor in cases where a company is mustered in on a muster-in roll, as the same is subscribed to thereon.

Enrolled at.....on the.....day of....., 19..,

by.....Regt. of .....

.....Volunteers.

INSTRUCTIONS.

One of these papers will be prepared in the case of *all* recruits enrolled and will be forwarded to the Adjutant-General of the Army in the following manner:

1. When recruits are mustered in with a company on a muster-in roll, it will accompany the latter when forwarded to the Adjutant-General.

2. In cases of individual enlistments by recruiting officers, it will be forwarded on the 10th, 20th, and last days of each month, with the trimonthly reports of recruiting. When the recruits are forwarded to their organizations a descriptive and assignment card will be prepared and forwarded to the regimental or other commander in accordance with the instructions on the card.

3. In cases of rejected recruits, a duplicate will be made. The Surgeon will note upon each the word "Rejected," stating the cause. The mustering officer will cause transportation to be furnished the recruit to the place of enrollment, and the duplicate will be the Quartermaster's authority for issuing the transportation and will be filed with his accounts. The original will be forwarded to the Adjutant-General of the Army.

CONSENT IN CASE OF MINOR.

I, ..., DO CERTIFY that I am the..... of..... .; and the said..... is ... . years of age; and I do hereby freely give my CONSENT to his enlisting as a SOLDIER in the ARMY OF THE UNITED STATES for the period of TWO YEARS.

Given at.....this.....day of....., 19...

Witness:..... .....

Army of the United States.

CERTIFICATE OF DISABILITY FOR DISCHARGE.

..... a ..... of .....,
..... Regiment of ....., was enlisted by .....
at ..... on the ..... day of ..... 18 ,
to serve ..... years, he was born in ....., ..., and when enlisted
was ..... years of age, ... feet ..... inches high, ... complexion, ... eyes
..... hair, and by occupation a ..... Recommended for
discharge on account of .....

Became unfit for duty from present disease, or injury (date) .....
Disease contracted or injury received (date and place) .....
When disability arose soldier was (state duty or service) .....
Cause of disease, or injury, or circumstances under which it appeared was as follows: .....

Disability was or was not incurred in line of duty, (erase words not used.) (Above facts not known to Company Commander should be covered by certificates of officers or affidavits of enlisted men appended hereto. If no information can be obtained in regard to them, so state here.) .....

Station: .....
Date: ....., 18

..... Commanding .....

I certify that I have carefully examined the above-named soldier and find him incapable of performing the duties of a soldier because of (here state nature and anatomical location of disease or injury and how it incapacitates for duty) .....

Opinion as to cause of disability and if incurred in line of duty, based on history and progress of case. (If no information as to causes can be obtained, so state here.) .....

Length of time case has been under observation. .....
In view of occupation, to what extent is he disabled from earning subsistence: .....

..... Surgeon, U. S. A., Post Surgeon.

(A. G. O. No. 13, Jan. 25, 1898.) 3—694 [DUPLICATE.]

Certificate of Disability for Discharge

IN THE CASE OF

.....

a ..... of .....

..... Reg't of .....

DIRECTIONS.

This certificate will be made out in *duplicate* by the soldier's troop, battery, or company commander, or other officer commanding the separate detachment to which he belongs, and sent by him to the surgeon who has charge of the hospital where the soldier is sick. The surgeon will then fill out in his own handwriting and sign the surgeon's certificate, and forward these papers to the post commander

These certificates, after having received the action of the highest authority to which they are required to be sent, will be returned through the same channel to the post commander, who will, if the discharge is authorized by the indorsement of the proper authority, sign the soldier's discharge and the last indorsement on this paper; see that the soldier is furnished with the proper final statements in duplicate, and forward both of these certificates *direct* to the Adjutant General United States Army, at Washington, D. C.; they will not, under any circumstances, be given into the hands of the soldier.

3-804

1st INDORSEMENT.

.....

....., 189

Respectfully forwarded to the Assistant Adjutant General, Headquarters Department of .....

.....

.....

Commanding Post.

2d INDORSEMENT.

A. G. O., D. .....

....., 189

To MEDICAL DIRECTOR.

3d INDORSEMENT.

M. D. O., H'DQ'RS, DEP'T OF ....

....., 189

Respectfully returned to the Assistant Adjutant General of the Department .....

.....

.....

..... *Surgeon,*
Medical Director.

4th INDORSEMENT.

HEADQUARTERS, DEP'T OF ....

....., 189

Respectfully returned to the Commanding Officer, ...

APPROVED AND DISCHARGE ORDERED.

By command of ..... General .....,

Assistant Adjutant General.

5th INDORSEMENT.

.....

....., 189

Respectfully returned to the Commanding Officer, ...

who will prepare the necessary papers and forward them to these Headquarters.

By command of .....

.....

Post Adjutant

6th INDORSEMENT

.....

....., 189

Respectfully returned to the Post Adjutant with the discharge certificate and duplicate final statements, as requested.

.....

.....

Commanding .....

7th INDORSEMENT

.....

....., 189

Respectfully forwarded to the Adjutant General, U. S. Army. The soldier was discharged at this Post on the ..... day of ....., 18 , and was furnished with a discharge certificate and duplicate final statements. He desires to be addressed at .....,County of .....

State of .....

.....

Commanding Post

DESCRIPTIVE LIST and ACCOUNT OF PAY AND CLOTHING of _____, a _____ of _____ Reg't of _____

DESCRIPTION.					WHERE BORN.		OCCUPATION.	ENLISTED.				LAST PAID.		YEAR OF CONTINUOUS SERVICE. (See Note 4.)	CLOTHING ACCOUNT.					
AGE AT ENLISTMENT.	HEIGHT. Feet.	HEIGHT. Inches.	COMPLEXION.	EYES.	HAIR.	TOWN OR COUNTY.	STATE OR KINGDOM.		WHEN.	WHERE. (Town and State.)	BY WHOM.	PERIOD.	BY PAYMASTER.	TO WHAT TIME.		DATE OF LAST SETTLEMENT.	Due United States for clothing overdrawn at settlement. Dolls.	Due United States for clothing overdrawn at settlement. Cts.	Due soldier for clothing not drawn at settlement. Dolls.	Due soldier for clothing not drawn at settlement. Cts.	Value of clothing drawn since settlement. Dolls.	Value of clothing drawn since settlement. Cts.

DUE SOLDIER.

For retained pay, Act of May 15, 1872 (see Note 2), ... ($.....)

For retained pay, Act of June 16, 1890 (see Note 2), ... ($.....)

For deposits, per detailed statement on other side, ... ($.....)

For .....

.....

NOTE.—If entitled to "Retained Pay," or to increased pay for Certificate of Merit, the fact will be noted under head of Remarks (see Note 2).

DUE UNITED STATES.

For Ordnance and Ordnance Stores, ... ($.....)

For Equipage, ... ($.....)

For Quartermaster Supplies, ... ($.....)

Other stoppages or fines (see Note 5), ...

.....

Previous service: .....

Noncommissioned officer: .....

Marksmanship: .....

Battles, engagements, skirmishes, expeditions, etc. (see Note 1): .....

.....

Wounds received in service (see Note 1): .....

.....

Medal of Honor (date and action for which granted): .....

Married or Single, and name and residence of nearest relative or guardian: .....

Character: .....

Physical condition: .....

Vaccination (see Note 8): .....

Convictions by Court Martial: .....

.....

REMARKS.

(See Notes 6, 7, and 9.) .....

I CERTIFY that the above is a correct transcript from the records of .....

Station: .....

Date; .....

.....

Commanding .....

(A. G. O. No. 983) April 1, 1896. 5—1896

DEPOSITS.

E.	PAYMASTER.	AMOUNT.	
		Dolls.	Cts.
	TOTAL.....		

1206

NOTES.

1. Should the soldier have been engaged in *battle* or *skirmish* it must be mentioned, together with *date* and *place*. *A full and particular mention* will be made of any *wounds* he may have received in *action*, also of any *other injury* or *disease*, and whether contracted in the *line of duty*, or not; also location of wound or injury.

2. The amount of retained pay due at date must be stated.

3. Additional pay due under Sections 1216 and 1285, Revised Statutes (Acts of Feb. 9, 1891, 26 Stat., 737, and March 20, 1892, 27 Stat., 12), will be thus noted: "For Certificate of Merit, $2 per month;" reenlisted pay, under Sec. 3, Act of May 15, 1872, thus: "Entitled to reenlisted pay." Under the heading: "Year of continuous service" will be entered the year of continuous service in which the soldier is serving; and, under the head of "Remarks," will be noted the date when said year commenced.

4. The amount of any extra duty pay which may be due the soldier must be noted.

5. Stoppages for *loss* or *damage* done to *arms* or other *public property* must be noted, and the *articles* and *particular damage* to each specified. When stoppages are due under sentence of a Court-Martial, *a transcript of the same* must be entered, and the amount *already stopped* must be *fully* stated, with a reference to the General Order in each case.

6. In *every* case of *desertion*, the *date*, and that of *surrender* or *apprehension*, must be given, together with a correct transcript of the order of *sentence* or *pardon*, and amount of reward paid, if any.

7. When a soldier is discharged, or dies while in hospital or on detached service, his Descriptive List, if he has one, should be taken up by the officer furnishing Final Statements, indorsed by him with a full statement of the time for which he was allowed pay, CLOTHING ACCOUNT, and all other charges against him or in his favor, so as to comprise a complete exhibit of his account, and retained by the officer for his protection. (In case of death, the Final Statements and Inventories of Effects will be forwarded to the Adjutant General, Washington, D. C.) A true copy of the original Descriptive List will at once be sent to the company commander, notifying him of the soldier's discharge, or death, with the indorsements made thereon as to date, place, cause, and character given on discharge, with charges, credits, etc., and the disposition of his effects, if dead, to enable him to enter all the data necessary to a full understanding of the soldier's account on the Muster Roll upon which the soldier's discharge or death is reported.

8. The date and result of the last vaccination of the soldier; or, if none has been made, a statement as to whether he is protected against smallpox by a previous attack, must be entered upon the Descriptive List.

9. The Pay Roll, or rolls upon which any pay may have been retained or detained under Court-Martial sentence, together with the several amounts so retained (expressed both in words and figures), must be accurately noted.

3—1206

Final Statement of _____

a _____ of _____ [_____] of the _____ Regiment

of _____, born in _____, in the State of _____

age (at enlistment) _____ years, _____ feet _____ inches high, _____ complexion,

_____ eyes, _____ hair, and by occupation a _____, was enlisted

by _____, at _____ on the _____ day

of _____, _____ hundred and _____, to serve for _____ years,

who is now discharged by reason of _____

_____

The said _____ was last paid by

Paymaster _____ to include the _____ day

of _____ nineteen hundred and _____, and has pay due from that

time to _____

DUE SOLDIER.

_____ year of continuous service. (See note 12.)

For clothing not drawn in kind, _____ ($_____)

For deposits (the date and amount of each deposit to be stated. See notes 6 and 7) _____

_____

_____

_____

_____

_____

_____

_____

DUE UNITED STATES

For clothing overdrawn _____ ($_____)

For _____

_____

_____

Remarks: _____

_____

_____

I CERTIFY that the above Final Statement, given in duplicate at _____

this _____ day of _____, 190 is correct.

_____

_____

Commanding _____

(A. G. O. No. 78.—Aug. 8, 1901.) 3—1

FINAL STATEMENT

OF

.....

.....

a ..... in .....

..... Regiment of .....

3-1

NOTE 1.—Duplicate final statements properly certified to by his immediate commander will be given, with the discharge certificate, to every soldier upon his discharge from the service [except as prescribed in A. R. 1398], and will be presented by the soldier to the paymaster for the pay due him. The payment made will be noted on the discharge certificate.

NOTE 2.—When a soldier is discharged, or dies while in hospital or on detached service, his descriptive list, if he has one, should be taken up by the officer furnishing final statements, indorsed by him with a full statement of the time for which he was allowed pay, CLOTHING ACCOUNT, and all other charges against him, or in his favor, so as to comprise a complete exhibit of his account, and retained by the officer for his future information. In case of death, the final statements and inventories of effects, showing date, place, and cause of death, and whether or not incurred in line of duty, will be forwarded as soon as practicable to the Adjutant General, Washington, D. C. A true copy of the descriptive list will at once be sent to the company commander, notifying him of the soldier's discharge or of his death, with the indorsements made thereon as to date, place, cause, with charges, credits, etc., and the disposition of his effects, if dead, to enable him to enter all the data necessary to a full understanding of the soldier's account, and cause and circumstances of death or discharge, on the muster-roll upon which the same is reported.

Where there are no effects inventories will be made out in blank, and forwarded, properly signed, with the final statements.

NOTE 3.—The transfer by an enlisted man of a claim for pay due him on his final statements can only be recognized when made *after his discharge* in writing, indorsed on the final statements, *signed by the soldier*, and witnessed by a commissioned officer, when practicable, or by some other responsible person known to the paymaster. The person witnessing the transfer must deliver the discharge to the soldier, indorsing thereon the fact of transfer of the final statements, and on the latter that such indorsement has been made on the discharge.

NOTE 4.—If entitled to additional pay under act of August 4, 1854, for former services, or under Secs. 1216 and 1260, Revised Statutes, of June 22, 1874, for certificate of merit, and if entitled to reenlisted pay under act of May 15, 1872, it should be noted on the final statements.

NOTE 5.—If a soldier has ever reenlisted under act of August 4, 1854, he is entitled to reenlisted pay even if years have elapsed before he again reenlists.

NOTE 6.—On the discharge of a soldier, the date and amount (in words and figures) of such deposit will be entered upon his final statements, and his deposit-book will be taken up by the paymaster who makes final payments, and filed with his voucher. In case deposits are forfeited by desertion, the amounts of the same will be entered on the final statements under the head of "Remarks," and the facts and authority for such forfeiture given. The words "service honest and faithful" or "service not honest and faithful," as the case may be, will be noted on the final statements. In case of death, books of deposit will be forwarded with the final statements to the Adjutant General, Washington, D. C.

NOTE 7.—Money amounts in all cases shall be written out in full, the writing to commence close to printed matter on left-hand side, and also expressed by figures in brackets.

NOTE 8.—Stoppages for *loss* or *damage* done to *arms* or other *public property* must be noted.

NOTE 9.—Stoppages by sentence of a Court Martial, with a reference to the G. O. in the case, must be entered, also forfeitures for desertion, with reference to the G. O. promulgating sentence or pardon, or if the soldier has been a deserter at any time during his enlistment, it should be noted, with dates of desertion and apprehension or surrender.

NOTE 10.—In order to prevent payment on fraudulent discharge papers, the officer who prepares the final statements of a soldier will shortly before his discharge, send to the chief paymaster of the department, or to the paymaster to whom the soldier may wish to apply for payment, a notification in his own handwriting, stating therein the date of last payment to the soldier, and his credits and debits, both in words and figures. The officer will also send the soldier's signature, if he be able to write his name, or report his inability to do so. This notification will not be given to the soldier, but will be sent by mail, so as to reach the paymaster before the soldier can report for payment. Paymasters will not pay discharged soldiers except when thus notified, unless satisfied of the genuineness of the discharge papers (and final statements) and the identity of the claimant.

NOTE 11.—When a soldier is discharged under such circumstances that he is not entitled to travel allowances, the officer signing his final statements will state on them: "*This soldier is not entitled to travel allowances*," stating the reason.

NOTE 12.—When a soldier is discharged from an enlistment during which he completed five years' continuous service, the following notation will be placed on the final statements: "Completed five years' continuous service..... 190 . Had.... years'.....months' prior service."

NOTE 13.—Final statements and descriptive lists of enlisted men on retirement must state the date to which subsistence has been furnished, and whether subsistence while traveling home (and dates thereof) has been furnished.

NOTE 14.—Final statements must show amount due the United States for purchase of discharge to enable the paymaster to collect the full amount of purchase money.—S. O. Par. 7, Par. I, A. G. O., 1898.

NOTE 15.—Officers signing and certifying to the correctness of final statements must be held responsible for their accurate preparation, and also for disregard of plain instructions as made known through the Army Regulations, orders, and notes on the blank forms. Officers responsible for overpayment on erroneous final statements will be required to refund the amounts overpaid.

NOTE 16.—This blank will be used for discharged soldiers as well as others.

ARMY OF THE UNITED STATES



To all whom it may concern

Know Ye, That _____

a _____ of _____ of the _____ Regiment of _____ who was enlisted on the _____ day of _____ one thousand eight hundred and _____ to serve _____ years is hereby Honorably Discharged from the Army of the United States by reason of _____

The said _____ was born in _____ in the State of _____ and when enlisted was _____ years of age, _____ feet _____ inches high, _____ complexion, _____ eyes, _____ hair and by occupation a _____

Given under my hand at _____ this _____ day of _____, in the year of our Lord one thousand nine hundred _____

_____ Commanding

CHARACTER

No objection to his reenlistment is known to exist.

MORNING REPORTS of Captain_____

Army of the United States, Colonel

STATION_____

| DAY OF THE MONTH. | PRESENT. | | |

RETURN of Captain *James Ferguson's* Company (*A*), of the *27th* Regiment of *Infantry* Army of the United States, for the month of *May* 1898.

| PRESENT | | | | | | | | | | ABSENT | | | | | | | | | | PRESENT AND ABSENT | | | | | | | | | |

COMMISSIONED OFFICERS, present and absent, accounted for by NAME.

Note 1.—The date (with No., date, etc., of order at which an officer is assigned or transferred to, joins or rejoins the company, assumes or is relieved from the command of it, or from any special duty, also all absences of whatever duration or cause, with authority therefor, and date of departure and return, to be stated against his name.

Note 2.—After the list of (active) officers will follow the record of those assigned, died, etc., or transferred from the company, with No., date, etc., of order, date, place, and in case of death, the cause.

Note 3.—Officers of other organizations serving with, or attached to, the company for duty, will be borne in red ink at the foot of the list of officers present or absent, as the case may be, but will not be included in the figures on the face of the return. The requirements of Notes 1 and 3 will also be observed in such cases.

NO	NAMES	RANK	REMARKS
	PRESENT		
1	James Ferguson	Capt	Com'd'g Co. Rejoined from leave May 2, '98.
2	John B. Poole	1st Lieut	With Co. Relinquished command of Co. May 2, 1898.
	ABSENT		
	George Watts	2d Lieut	Sick in hospital at San Carlos, Mex., since May 15, 1898. Was mortally wounded in right leg in battle of May 13, 1898.

OFFICIAL COMMUNICATIONS RECEIVED FROM REGIMENTAL HEADQUARTERS DURING THE MONTH

NATURE	No. of LETTER	DATE	WHEN RECEIVED	PURPORT
Letter		May 15, '98	May 17, '98	Requesting return of killed, wounded, and missing
Orders	51	May 3, 98	May 5, 98	Transferring P'v't Jacob Smith from Co. D to Co. A
	52	May 13, 98	May 13, '98	Detailing Sergt James Miller of Co A for special duty as Art'y Regt'l Sergt Major

ALTERATIONS SINCE LAST RETURN among the ENLISTED MEN.

Note 7.—The date, etc., of all transfers to or from the company (with No. and date of order of all appointments, surrenders, discharges, deaths, desertions, etc., will be accurately noted, with the place of discharge, death, desertion, etc.)

(To be accounted for by NAME, and classed in the same order as on the face of the return.)

NO	NAMES	RANK	DATE	PLACE	REMARKS
	GAIN				
	Enlisted				
1	John Brewer	Private	Apl 20, 1898	New York City	Joined Co May 1, 1898
2	Henry Kessler		Apl 21, 1898	" "	" " " "
3	Juan Finn		May 1, 1898	St. Augustine, Fla.	Enlisted in company
	By Transfer				
1	Jacob Smith	Private	May 3, 1898	St. Augustine, Fla	From Co. D, R. G. 14, May 3, '98
	LOSS				
	Expiration of service				
1	William Kirby	Corporal	May 1, 1898	St. Augustine, Fla	Character excellent
	Killed in action				
1	John McCarthy	Sergeant	May 14, 1898	Fort Blanco, Mex	
2	James Little	Private		"	

[MODEL.]

RETURN OF

Company (A), 27th Reg't of U S. Infantry.

For the month of May. 1898.

FIELD RETURN OF _____

Organizations.	Number of Regiments.	Number of Companies.	PRESENT.							ABSENT.		Aggregate Present and Absent.	Present for duty equipped		REMARKS.
			Com. Officers.			Enlisted Men.									
			For Duty.	Sick.	Total.	For Duty.	Sick.	In Arrest or Confinement.	Total.	Com. Officers.	Enlisted Men.		Com. Officers.	Enlisted Men.	
TOTAL															

Station: _____

Date: _____ _____ Commanding.

COMMISSIONED OFFICERS PRESENT AND ABSENT ACCOUNTED FOR BY NAME.

No.	NAMES	RANK	Regiment and Company	REMARKS

FIELD RETURN

OF

_____

_____

_____

FOR

_____, 19

Postoffice_____

_____

Telegraph Station_____

_____

This form will be used in compliance with Par. 795, Army Regulations, upon the establishment or evacuation of a post or temporary camp, and upon the temporary or permanent increase or reduction of a garrison, and a copy to be forwarded, at once, direct to the Department headquarters.

The location and postoffice address of a new post or camp must be stated,

RECAPITULATION.	Captain.	1st Lieutenants.	2d Lieutenants.	Adjt. 2d Lieut.	1st sergeant.	Sergeants.	Corporals.	Buglers.	Farriers and blacksmiths.	Artificers and saddlers.	Wagoners.	Privates.	Total enlisted men.	Total colored.	Aggregate.
PRESENT. For duty															
On extra or special duty															
Sick															
In arrest or confinement															
ABSENT. On detached service															
With leave															
Without leave															
Sick															
In arrest or confinement															
STRENGTH—Present and Absent															
Aggregate Last Monthly Muster															
ALTERATIONS SINCE LAST MUSTER. Joined. General recruiting service															
Special recruiting service															
By transfer or appointment															
From desertion															
Discharged. Resigned															
Expiration of service															
For disability															
By sentence of general court-martial															
By civil authority															
By order															
Transferred															
Died. Killed in action															
Of wounds															
From disease, etc.															
Retired															
Deserted															
Dropped															

I CERTIFY that this muster roll is made out in the manner required by the printed instructions; that it exhibits the true state of Captain ..... (.....), of the ..... Regiment of ....., for the period herein mentioned; that the remarks set opposite the name of each officer and soldier are accurate and just; and that the recapitulation exhibits in every particular the true state of the ..... as required by Regulations and the Rules and Articles of War.

STATION: .....

DATE: .....

.....

.....

Commanding the .....

Number of recruits required.		Serviceable horses.	Horses present.
Wounded in action.		Unserviceable horses.	
Muster-Rolls.		Army Regulations.	Accompany or precede each muster roll (see par. 1).
		Drill Regulations, Cavalry.	
Monthly Returns.		Drill Regulations, Light Artillery.	
Enlistments.		Drill Regulations, Infantry.	
Furloughs.		Manual of Heavy Artillery.	
Descriptive lists.		Manual of Guard Duty.	
Final Statements.		Firing Regulations, Small Arms.	
Discharges.		Regulations for Recruiting Service.	
Certificates of Disability.			
Inventories of Effects of Deceased Soldiers.			

I CERTIFY that I have carefully examined this muster roll, and that I have mustered and minutely inspected the .....; the condition of which is found to be as expressed in my remarks hereunto annexed.*

DISCIPLINE: .....

INSTRUCTION: .....

MILITARY APPEARANCE .....

ARMS: .....

ACCOUTERMENTS: .....

CLOTHING: .....

.....

.....

Inspector and Mustering Officer.

*It is made the special duty of the inspector and mustering officer to add the appropriate remarks touching discipline, instruction, etc., according to the facts determined in the course of his inspection, with such other remarks as may be necessary or useful for the information of the War Department.

3—M5

MUSTER ROLL of Captain _____, _____, of the (Colonel _____), from the _____ day of _____, 189 , to the _____ day of _____, 189

No.	NAMES. Present and Absent. (Commissioned and Non-commissioned Officers according to rank. Privates in alphabetical order.)	RANK.	ENLISTED. When.	Where.	By whom.	Period. Years.	NAMES. Present.

_____ Regiment of _____ Army of the United States,

REMARKS.	LAST PAID. By paymaster.	To what time.	TIME OF CONTINUOUS SERVICE.	DUE U. S. For clothing. Dolls.	Cts.	Dolls.	Cts.

☞ All officers, non-commissioned officers, and others that may be concerned in the preparation of this roll, are enjoined to exercise every care that it be made complete. When filed in the Adjutant General's Office it will become the record to which reference will thereafter be made in the investigation and settlement of all claims or questions affecting officers and men whose names are borne on the roll, and their heirs, for the period covered by it.

INSTRUCTIONS FOR THE PREPARATION OF MUSTER ROLLS.

1. All officers and enlisted men are to be taken up on the rolls from the date of receipt of notice of their assignment by competent authority, whether they have yet joined or not. Care should be taken to have names of soldiers and dates of enlistment correct. Men of different regiments or branches of the service should not be borne on one roll.

2. The use of dots and of the word "ditto" is prohibited.

3. Under the head of "Remarks" must be carefully stated opposite the name of the person concerned:

a. The date when any assignment takes effect, with No., date, etc., of order therefor;

b. The date that any officer or enlisted man joins, whether originally or from any absence, and if originally the source of gain;

c. The date an officer assumes or is relieved from any command;

d. The description of any special or extra duty on which any officer or enlisted man has been employed, with the dates on which he entered upon and was relieved from such duty, and the Nos., dates, etc., of orders;

e. All changes of rank or grade, with dates of same, and Nos., dates, etc., of orders;

f. All authorized stoppages, fines, sentences, with Nos. dates, etc. of orders;

g. All cases of absence, the nature and commencement of, and periods authorized for same, with Nos., dates, etc., of orders; and this must be repeated on every roll while such absences continue, and in case of absence on detached service, sick, or in confinement, the place of absence must be set forth;

h. All cases of sickness, injuries, or wounds and whether or not contracted while in the performance of some duty;

i. All cases of confinement; and when by civil authority the nature of the offenses, whether prisoners have been held for trial, tried, or discharged without trial, and, when tried, whether acquitted or convicted, with dates, etc.;

k. Everything else necessary to account fully for every individual, so as to insure justice to him and to the United States.

4. In noting stoppages to be made for losses of or damage to public property, the amounts due for ordnance, for quartermaster's supplies, etc., will be separately stated in gross amount for each. (See A. R. 1090 and Cir No. 13, A. G. O., 1895.) Charges for transportation and subsistence while traveling will be made as prescribed in Cir No. 15, A. G. O., 1892.

5. Additional pay, due under secs. 1216 and 1285, Revised Statutes, acts of Feb. 9, 1891 (26 Stat. 737) and Mar. 29, 1892 (27 Stat. 12) will be thus noted: "For certificate of merit, $2 per month," reenlisted pay due under sec. 3, act of May 15, 1872, thus: "Entitled to reenlisted pay." The date of change in the rate of pay on account of continuous service will be noted in the column of Remarks on the roll covering the period in which the change occurred, thus: "3d year commenced——," "4th year commenced——," etc., and repeated on succeeding rolls until paid. Under the heading "Year of continuous service," will be entered the year of continuous service in which the period covered by this roll terminates.

6. The names of those belonging to the command will be immediately followed by those of the officers and enlisted men who have ceased to belong to it since last bimonthly muster. These will be classed in the following order, viz: Discharged, transferred, died, retired, deserted, dropped; and the utmost particularity will be observed in the remarks concerning them; dates and places will in every case be given, and Nos., dates, etc., of orders, or description of authority, be always carefully specified. When soldiers are retained in service beyond the period for which they were enlisted, as shown by the date of their enlistments, the causes of such retention must be stated. The names of soldiers discharged and reenlisted, or who have deserted and have joined from desertion since last bimonthly muster, must be placed both in the body of the roll and under the appropriate headings as having been discharged, having deserted, etc. The place and date of the return (see A. R. 131) of an alleged deserter, and whether he surrendered or was apprehended, will be stated on every roll until he has been tried by court-martial, or returned to duty by *competent authority* (see A. R. 132) when the date, place, and source of the order *announcing his return to duty or the result of the trial will be carefully noted*. *The restoration to duty without trial of a deserter by competent authority, i. e., the commander who would have been authorized to direct his trial, entailing the imposition of the forfeitures and stoppages prescribed by Army Regulations can be ordered only in case the desertion is admitted, and must not be confused with the* REMOVAL, *by the order of such a commander or the War Department of a charge of desertion* ERRONEOUSLY *entered on the rolls against a soldier, such removal operating to relieve him from any and all stoppages to which he may have been subjected on account of his supposed desertion.*

7. The remark "discharge and final statements given" will be made opposite to the name of every discharged soldier to whom such papers have actually been given. The character given on the discharge will be noted on the roll (see A. R. 148).

8. Upon the transfer, desertion, death, discharge, or retirement of a soldier, or when dropped under 50th Article of War, his account will be fully stated, the balance for clothing due the United States or due the soldier, all stoppages and charges and all credits for retained pay, detained pay, or deposits, will be entered upon the roll.

a. Should a soldier who has deserted be returned to the service the same data that appeared on the rolls after desertion should appear on the first rolls after his return and upon all subsequent rolls until a settlement of his accounts shall have been made by a paymaster, but if no settlement should be made by a paymaster, owing to the soldier's dishonorable discharge, a separate statement of the new account opened with the soldier at date of apprehension or surrender should also be given in addition and with no reference to the statement made at date of desertion.

9. For Regulations concerning settlement of a soldier's clothing account see A. R. 1180-1185.

10. Under the heading "Last paid" should be entered the name of the paymaster who last paid a balance to the soldier and the date to which this payment settled his account.

11. The ruled columns must not be used for purposes other than as stated in these notes or indicated in the printed headings.

12. One line only will be used for the record of the data, stoppages, and remarks pertaining to a member of the command, unless the length of the remarks shall require additional space; and, in any case, the interval between a name and the one preceding it must not be greater than necessary.

13. Actions in which the company, battery, troop, or any portion of it has been engaged, scouts, marches, changes of station, everything of interest relating to the discipline, efficiency, or service of the command, will be minutely and carefully noted, with dates, places, distances marched, etc., and also names of men who took part in scouts or actions in which the command was not engaged.

14. Corrections on muster rolls, after muster and before they have been forwarded to Washington, will only be made with the approval of the mustering officer. Retained rolls will not be changed until authority therefor has been obtained from the Adjutant General.

15. Books of tactics, instructions, etc., and blank forms which have been superseded by others, will not be accounted for on this roll.

16. Within three days after each bimonthly muster, the mustering officer will transmit to the Adjutant General, U. S. Army, a copy of the muster roll of each company, battery, troop, or detachment. A duplicate of the muster roll will be retained. Blanks will be supplied from the Adjutant General's Office, and will be accounted for on the muster rolls.

17. This roll will not be used to muster detachments.

ISSUES AND MEMORANDUM OF SAVINGS.

ARTICLES. [Enter the number and sizes of cans of canned articles issued.]	Issues on within Return. Rations.	Memorandum of Savings left with Commissary. Quantities.
Pork		lbs.
Bacon		lbs.
Fresh Beef		lbs.
Mutton		lbs.
Fresh Beef, canned		None.
Corned Beef, canned		None.
Fish		lbs.
Flour		lbs.
Hard Bread		lbs.
Corn Meal		lbs.
Beans		lbs.
Baked Beans, canned		None.
Peas		lbs.
Rice		lbs.
Hominy		lbs.
Potatoes		None.
Onions		None.
		None.
		None.
		None.
		None.
Coffee		lbs.
Tea		lbs.
Sugar		lbs.
Vinegar		gals.
Candles		lbs.
Soap		lbs.
Salt		lbs.
Pepper		lbs.
Baking Powder		None.

	Issued for Period		Quantity.
	Commencing—	Ending—	
Flour for Paste			rations
Vinegar for Animals			rations
Candles for Guards, etc.			rations
Salt for Animals			rations
Lantern Candles			pounds
Matches			boxes

NOTE.—The articles issued and the quantities left for Savings will be entered by the issuing commissary in the proper columns above at the time the issues are made. (See A. R. 1233, 1234, and 1235.)

No......

RATION RETURN

OF

.....

FOR THE PERIOD FROM

.....day of.....

TO

.....day of..... 189

INSTRUCTIONS FOR MAKING OUT RATION RETURNS.

1. The full strength of the organization on the first day of the period covered by the return should be shown in the first column. The details there given are intended for use by the post commander in *checking from the morning report the accuracy of the return* before ordering the issue.

2. The computation on which the number of rations to be issued is based is shown by the second column, which begins with the number present for rations, as shown by the first column. This number, multiplied by the number of days embraced in the ration period, gives the "number of rations for the period." To this number must be added the number of rations due the organization on account of men who joined after the last regular issue (shown by the third column), and from their sum must be deducted the number of rations for men included in the last issue who left the organization after that issue had been made without taking their rations with them (shown by the third column), the difference being the "Number of rations required on this return."

3. The third column shows the latest date which was included in the last ration return; and it then shows what men or detachments joined after that date for whom rations were not included in that return, from what status they joined, and the dates of their joining, with the number of rations due on account of each entered in the final column. Thus, if the ration period of the last ration return was for January 11 to January 20, the entries of additions would be made on the ration return for the period from January 21 to January 31, in the following manner:

Sergeant Wolf, from D. S., January 15	6
Corporal Jones, from furlough, January 12	9
Private Anderson, from sick in Hospital, January 19	2
Detachment 15 men, Co. C., 18th Inf., from D. S., Jan. 18	45
Total number of rations to be added	62

Next should be entered those who left after the last regular issue without carrying rations with them, with the dates of leaving, and with the number of rations left behind by each entered in the final column, thus:

Corporal Young, on furlough, January 14	7
Private Brown, on D. S., January 16	5
Private Horn, to hospital, January 18	5
Detachment 5 men, Co. C., 18th Inf., on D. S., January 12 (See Ret. 4)	45
Total number of rations to be deducted	60

These additions and deductions must be entered in detail on the back of the Abstract of Issues (Form No. 40).

4. Finally, for the information of the post commander, the names of those persons of the organization who are rationed separately from those whose rations are sent to the company kitchen must be entered at the bottom of the third and final columns.

5. The table on the outer fold, headed "Issues and Memorandum of Savings" shows, under the subhead "Issues," the total authorized number of rations of each article to be charged against the organization as issued to it for the period covered by the return. The entries in this column *are those which are carried to the Abstract of Issues* (Form 40). The entries in the column headed "Memorandum of Savings" show the quantity of each article left by the organization in the commissary storehouse as not wanted for consumption, and for which the money value will be claimed by it as "Savings" when settlement comes to be made. The entries in this column are to be used for verifying the vouchers for "savings" when presented.

6. At a post where a general mess is established, regular ration returns must be made out in accordance with the above instructions by the commanding officers of the several organizations which participate in the mess. The aggregate quantity of each article ordered by the post commander to be issued for the several organizations participating in the mess [not including "Sick in hospital," who must be issued to on separate returns and so reported on the Abstract of Issues] may be entered on the outer fold of a separate ration return, and the ration returns of the organizations inclosed in it as a wrapper. In entering these aggregates on the Abstract of Issues, the names of the organizations, the strength of each, and the period, should be entered in the proper columns, the necessary information as to additions deductions, etc., being also given as to each.

No. _____ **Ration Return** of _____ stationed at _____

(A separate Ration Return must be made for each of the classes provided for in the first column hereon.)

Return.		Rations Required. per the following Computation.		Additions and Deductions.	Rations.
Return for a Company, a Detachment, or a detachment of Hospital Corps and attendants:		**Number actually present** for rations, per the preceding column		Last regular issue of rations included date of _____ 189	
Full strength of organization		Number of days for which rations required, beginning— _____ 189 , and ending _____ 189		Joined after last regular issue of rations, with dates of joining: (Give name of men, or strength of detachment, etc.)	
Deduct for number—					
Sick in hospital					
On detached service					
On furlough					
Without leave		Number of rations for the period			
Absent sick					
Detained by civil authorities		**Add** for rations due men who joined after last issue			
Rationed separately		Total		Total number of rations to be added	
Total deductions				Left after last regular issue of rations without taking the rations with them, with dates of leaving (Give names of men, or strength of detachment, etc.)	
No. actually present for rations		**Deduct** for rations of men who left after last issue			
Return for men rationed separately: Number actually present who are rationed separately		**Number of rations required on this return**		Total number of rations to be deducted	
Return for the Sick in Hospital: Number actually present sick in Hospital (Note 2)				Persons who are rationed separately from their company, hospital, or organization	
Return for Civil Employees: Number authorized to draw rations					

OTHER SUBSISTENCE STORES REQUIRED.

Where to be used, or by what Company, Troop, Battery, etc., required.	For Period		Number of Days.	Number of Animals.	Flour for Paste for use in Target Practice	Vinegar for Public Animals.	Candles for Guards, Offices, etc.	Salt for Public Animals.	Lantern Candles for Stables.	Matches for Public Fires and Lights.	
	Commencing—	Ending—			Rations.	Rations.	Rations.	Rations.	Pounds.	Boxes.	
	Quantity										

The Commissary will issue on the above return.

_____ _____

_____ Reg't of _____ Comd'g Post. Reg't of: _____ Comd'g _____

NOTES.

1. Ration returns must call for rations for only those who are *actually present* with the organization, and should ordinarily be made for periods of not more than ten days at a time.
2. The sick in hospital will be returned for by the medical officer in charge on a ration return separate from the ration return for the detachment of the Hospital Corps and attendants.
3. When any considerable detachment of enlisted men leaves a post or command, the detachment commander is furnished by the commissary with a Ration Certificate (Form No. 41), giving the number of men and the organization to which they belong, and setting forth the date to which, and by whom, rations were last issued for them, which ration certificate is presented to the commissary from whom rations are next drawn, who files it with his Abstract of Issues (Form No. 40). Employees entitled to rations are, when detached, furnished with Ration Certificates (Form No. 41).
4. When a person entitled to rations leaves an organization, or is ordered to travel with travel rations, the rations issued to him for any period beyond the date of his leaving and not taken with him, are deducted on the next ration return of the organization. The name of the person, with a statement of facts, is entered on the ration return.
5. When ration returns are made for a few persons separately from the company, hospital, or organization to which they belong, the names of such persons will be written on the ration return.
6. Ration returns calling for flour for paste, salt and vinegar for public animals, candles for guards and offices, lantern candles for stables, and matches for lighting public fires and lights, must be signed by the officer in charge of the rifle range, guard, stable, headquarters, office, etc., and the issue ordered by the commanding officer, who will determine whether the whole or only part of the allowance shall be issued. The number of animals and the period for which salt and vinegar are issued will be stated on the ration return and entered on the Abstract of Issues (Form No. 40).
7. Every ration return upon which issues have been made must be entered on the Abstract of Issues (Form No. 40).

Form No. 63.

SPECIAL REQUISITION FOR CLOTHING AND EQUIPAGE.

Place, ... *Date,* *1900*

NO.	ARTICLES	SIZES						NO.	ARTICLES	SIZES					
		Artillery and Engineers.		Cavalry.		Infantry.									
	Aiguillettes and shoulder knots								COATS—Uniform dress, army standard—unmade.	1	2	3	4	5	6
	Blankets, wool.								Foot. (Give arm.)						
	BLOUSES	1	2	3	4	5	6		Mounted. (Give arm.)						
	Army standard made								COAT (uniform dress) facings, sets.						
	Army standard, unmade								Artillery						
	BOOTS—PAIRS	5	6	7	8	9	10	11	12						
	Sewed, "A" lasts								Cavalry						
	Sewed, "B" lasts								Commissary Sergeants						
	Sewed, "C" lasts								Engineers						
	CAPS	6¾	6⅞	7	7⅛	7¼	7⅜		Infantry						
	Canvas, blanket-lined								Light Artillery						
	Forage								Ordnance						
	Fur								Post Quartermaster Sergeants						
									Signal Corps						
										14	14½	15	15½	16	16½	17	17½	18
	CAP ORNAMENTS. (State arm of service and organization for which required.)								Collars, linen									
									Cravats, black silk									
										1	2	3	4	5				
									Drawers, canton-flannel pairs									
										9		10		11				
									Gauntlets, fur pairs									
	CHEVRONS AND BRASSARDS					Cloth.		Gold lace.		8		8½	9	9½	10			
	Artillery (Give rank.)			pairs.					Gauntlets, leather pairs									
	Cavalry (Give rank.)			pairs.						9		10		11				
	Commissary Sergeants			pairs.					Gloves, white Berlin pairs									
	Engineers (Give rank.)			pairs					HATS—Campaign	6¾	6⅞	7	7⅛	7¼	7⅜			
	Hospital Stewards (cloth only)			pairs					Black, wool									
	Acting Hospital Stewards (cloth only)			pairs					Drab, fur									
	Infantry, blouse. (Give rank.)			pairs					Hat cords and tassels. (State arm.)									
	Infantry, dress coat (Give rank.)			pairs														
	Infantry, overcoat (Give rank.)			pairs					Helmets, cork									
	Ordnance			pairs					Helmets, untrimmed									
	Post Quartermaster Sergeants			pairs					Helmet cords and bands (State arm.)									
	Signal Corps Sergeants. (State how many should be first-class.)			pairs.					Helmet eagles. (State arm.)									
	Service, peace (For all arms.)			pairs					Helmet eagles, devices (State arm.)									
	Service, war. (State arm.)			pairs					Helmet hair plumes (State arm.)									
	Brassards (State whether red or white.)			No.					Helmet lyres									
	First class Gunners, Ineligible			No.					Helmet numbers (State how many of each)									
	CANVAS FATIGUE CLOTHING	1	2	3	4	5	6		Helmet plume sockets									
	Sack coats No.								Helmet scroll and rings, pairs									
	Trousers pairs								Helmet side buttons, pairs. (State arm.)									
	COATS—Uniform dress—made	1	2	3	4	5	6		Helmet spikes									
	Artillery (Give rank.)								Helmet top piece or base									
	Cavalry (Give rank.)										1		2		3			
	Commissary Sergeants								LEGGINS—Canvas.									
	Engineers. (Give rank.)								Foot pairs									
	Infantry. (Give rank.)								Mounted pairs									
	Light Artillery. (Give rank.)									9		9½		10				
	Ordnance. (Give rank.)								Mittens, canvas pairs									
	Ordnance Sergeants									10		11		12				
	Post Quartermaster Sergeants								Mittens, wool pairs									
	Signal Corps																	

NO.	ARTICLES	SIZES					
	MUSIC TROUSERS	Large					
	Artillery and Engineers						
	Cavalry						
	Infantry						
	OVERALLS—Pairs	1			4		
	Cavalry and Light Artillery						
	Engineers						
	OVERCOATS	1	2	3	4	5	6
	Artillery and Engineers						
	Cavalry						
	Commissary Sergeants						
	Fur or Canvas						
	Hospital Corps						
	Infantry						
	Ordnance						
	Post Quartermaster Sergeants						
	Signal Corps						
	Unmade (Give arm)						
		7	8	9	10	11	12	13
	Overshoes, arctic pairs							
	SHIRTS.	1	2	3	4	5	6
	D. B. flannel						
	Cotton, under						
	Knit wool, under						
	TROUSERS—Pairs	1	2	3	4	5	6	7	8	9	10	11	12
	Foot, made, Army Standard												
	Foot, unmade, Army Standard												
	Mounted, made, Army St'd												
	Mounted, unmade, Army St'd												
	Engineer Corps, made												
	Engineer Corps, unmade												

NO.	ARTICLES	SIZES									
		1	1½	2	2½	3	3½	4	4½	5	5½
	Barrack pairs	1	1						1	1	
	Sewed, "AA" last pairs										
	Sewed, "A" last pairs										
	Sewed, "B" last pairs										
	Sewed, "C" last pairs										
	Stable socks										
	STOCKINGS—Pairs	9½	10	10½	11	11½					
	Cotton, brown mixed										
	Cotton, white										
	Woolen										
	SUMMER CLOTHING.	1	2	3	4	5	6				
	Sack coats										
	Trousers										
		26 inches		28 inches		30 inches					
	Suspenders pairs										

NO.	TROUSERS STRIPES—Pairs.	Sgts.	Corpls.	Mus.
	Artillery			
	Cavalry			
	Commissary Sergeants			
	Engineers			
	Hospital Stewards			
	Acting Hospital Stewards			
	Privates, Hospital Corps			
	Infantry			
	Ordnance			
	Post Quartermaster Sergeants			
	Signal Corps			

ARTICLES REQUIRED AND NOT ENUMERATED ABOVE WILL BE ENTERED IN THE SPACE BELOW

I certify that the above requisition is correct, and that the articles specified are absolutely requisite for the public service, rendered so by the following circumstances

_____

_____

_____ Quartermaster _____ U. S. Army,

will issue the articles specified in the above requisition.

_____

Commanding

RECEIVED at _____, the ____ day of _____ 19__

of _____ Quartermaster _____ U. S. Army,

in full of the above requisition.

_____

_____

SIGNED IN DUPLICATE

FORM NO. 533.

Voucher No. . . . . . *Quarter, 1900*

. . . . . .

. . . . . .

SPECIAL REQUISITION

FOR

CLOTHING AND EQUIPAGE.

NUMBER OF EACH GRADE.	ORGANIZATION																TOTAL.
	ORDNANCE SERGEANTS.	COMMISSARY SERGEANTS.	POST QUARTERMASTER SERGEANTS.	HOSPITAL STEWARDS.	ACTING HOSPITAL STEWARDS.	PRIVATES, HOSPITAL CORPS.	ENGINEERS.	ORDNANCE.	CAVALRY.	LIGHT ARTILLERY.	FOOT ARTILLERY.	INFANTRY.	SIGNAL CORPS.				
Non-Commissioned Staff																	
First sergeants																	
Sergeants																	
Corporals																	
Buglers																	
Privates																	
Total																	

This blank form is to be used by Troop, Battery, Company and Detachment Commanders in making special requisitions for clothing and equipage upon Post Quartermasters, at such times and for such quantities as may be required.

To be made in duplicate, one copy to be retained by the officer who issues the property, and the other to be sent to the Quartermaster General at the end of the quarter, with his return of clothing and equipage.

3—909

LIBRARY
THE GENERAL SERVICE SCHOOLS
FORT LEAVENWORTH, KANSAS

Form No. 1 c—

QUARTERLY RETURN OF ORDNANCE AND ORDNANCE STORES received,

DATE. 190	NUMBER OF VOUCHER.	_____ Quarter, 190	CLASS VI. SMALL ARMS.							CLASS VII. APPENDAGES FOR CARBINES					
			Magazine carbines, model 1896	Magazine carbines, model 1898	Springfield shotguns	Colt revolvers, cal. 38		Light cavalry sabers		Barrack cleaning rods	Covers for breech mechanism	Screw drivers, model	Small-arm oilers		
		On hand from last Return													
		Taken up, as per													
		Received from													
		Received from													
		Received from													
		Received from													
		Received from													
		Repaired and transferred during the quarter													
		TOTAL TO BE ACCOUNTED FOR													
		Issued to													
		Issued to													
		Issued to													
		Condemned and dropped by order of													
		Expended, as per Abstract													
		Lost or destroyed, as per													
		Charged on Muster and Pay Rolls, as per State't													
		Repaired and transferred during the quarter													
		TOTAL ISSUED AND EXPENDED													
		REMAINING ON HAND TO BE ACCOUNTED FOR ON NEXT RETURN													

NOTE.—Unserviceable stores will be entered in red ink. They may appear in the same column with the serviceable.

FORM 1 C.

QUARTERLY RETURN

OF

Ordnance and Ordnance Stores

RECEIVED, ISSUED, AND REMAINING ON HAND

IN

Troop ——, ——— Regiment Cavalry,

COMMANDED BY

———

DURING

the Quarter ended ———, 190

———

* * * "Every officer of the Ordnance Department, every ordnance storekeeper, every post ordnance sergeant, each keeper of magazines, arsenals, and armories, every assistant and deputy of such, and all other officers, agents, and persons who shall have received or may be intrusted with any stores or supplies, shall quarterly, or oftener if so directed, and in such manner and on such forms as may be directed or prescribed by the Chief of Ordnance, make true and correct returns to the Chief of Ordnance of all ordnance, arms, ordnance stores, and all other supplies and property of every kind, received by or intrusted to them and each of them, or which may in any manner come into their and each of their possession and charge." * * * *Section 1767, Revised Statutes of the United States.*

———

The auditing and settlement of ordnance property accounts, which was formerly performed by the Second Auditor of the Treasury, has, by decision of the Secretary of War, been devolved upon the Chief of Ordnance; and officers responsible for ordnance property are required to satisfy the Chief of Ordnance of the sufficiency of all papers submitted as vouchers for the disposition made of the stores for which they are responsible

———

The Property Returns when examined, found correct, and finally settled and closed, are filed in the Ordnance Office, and are no longer sent to, or acted on by, any of the accounting officers of the Treasury.

Received at Ordnance Office, ..., 190 .

Examined, found correct, and audited by the Chief of Ordnance.

The return filed in Ordnance Office, and the responsible officer

notified of settlement ... ., 190 .

Send the Return and all papers connected with it to "The Chief of Ordnance, U. S. Army," DIRECT, in ONE PACKAGE.

ALL COMPANY OFFICERS HAVING ORDNANCE STORES TO ACCOUNT FOR SHOULD OBSERVE—

1. That each officer's accountability commences from the day he took command of the Company; he is to make Returns for his own accountability only, and is not responsible for property for which he has not given receipts.
2. That the account of property rendered in this Return must invariably be closed at the end of the official quarter, viz. 31st March, 30th June, 30th September, and 31st December of each year, except when a change of station, or the muster out of the Regiment, renders it necessary to close the account at an earlier date.
3. That it must be clearly stated how the stores with which the United States is credited came into the possession of the officer—whether brought forward from the last Return, received from the Ordnance Department, or from some other officer, or purchased from private persons.
4. That every issue to another person must be covered by a voucher, signed by the receiving officer, or by a duplicate receipt, or by a copy of the order or requisition being furnished, and the same attested by the officer himself.
5. That every issue to another person, which can not be obtained, a receipt cannot be filed as a voucher, with a statement showing why the receipt could not be obtained.
6. That no property be issued, except by authority of a regularly authorized inspector.
7. That the account of property rendered in this Return must invariably be closed at the end of the official quarter, viz. 31st March, 30th June, 30th September, and 31st December of each year, except when a change of station, or the muster out of the Regiment, renders it necessary to close the account at an earlier date.
8. That it must be clearly stated how the stores with which the United States is credited came into the possession of the officer—whether brought forward from the last Return, received from the Ordnance Department, or from some other officer, or purchased from private persons.
9. That every issue to another person must be covered by a voucher, signed by the receiving officer, or by a duplicate receipt, or by a copy of the order or requisition being furnished, and the same attested by the officer himself.
10. That every issue to another person, which can not be obtained, a receipt cannot be filed as a voucher, with a statement showing why the receipt could not be obtained.
11. That no property be issued, except by authority of a regularly authorized inspector.

No expenditure of ammunition, except by authority of a regularly authorized inspector.
Nothing but ammunition, parts of arms, and material for repairs can be expended, and these only in such quantities as the necessities of the case will warrant.
Expenditures of ammunition in target practice must be supported by the certificate of the officer conducting the target practice, showing the number of rounds expended.
Expenditures of ammunition in hunting must be supported by proper vouchers, which are the legal evidences of the conclusion of the sale contract.
Expenditures of ammunition in action must be supported by such evidence as can be obtained, such as the certificates of other officers, orders of a superior, or the affidavits of enlisted men or citizens.
In short, every transaction noted on the Return must be supported by proper vouchers, which are the legal evidences of the conclusion of the sale contract.
Nothing but ammunition, parts of arms, and material for repairs can be expended, and these only in such quantities as the necessities of the case will warrant.
Blanks for the Return and for the vouchers will be furnished by the Ordnance Department upon application.
The Return should be finished and signed, and filed in the Ordnance Office, and are no longer sent to, or acted on by, any of the accounting officers of the Treasury.
Receipts and vouchers must be signed in ink, and not in pencil.
Erasures must be avoided, and if unavoidable must be explained by a memorandum at the footer of the page.
Each page must be numbered.
Each page must be footed with the number of articles carried to the next page.
Each page must be signed by the officer rendering the Return.
Each page must be signed by the officer rendering the Return.
Each page must be signed by the officer rendering the Return

MAIN 355.0973. L817C c1
Cadet's Handbook. A Manual For Military
Lockwood, John Alexander, 1856-
Mo., Press Of Hudson-Kimber (1903)
Combined Arms Research Library
Fort Leavenworth, KS
3 1695 00014 759 5

355
.0973
L817c
c.1

LOCKWOOD
Cadet's handbook.