

U. S. INFANTRY AND CAVALRY SCHOOL

Fort Leavenworth, Kansas, July 11, 1887.

GENERAL:

I have the honor to submit the annual report of the Infantry and Cavalry school for the year commencing September 1, 1886, and ending June 9, 1887.

Having assumed command of the school near the middle of the term, I did not feel authorized in recommending a change in the curriculum previously laid down by the school staff, and only added a new subject of study, the department of methods and administration and the supply departments, utilizing Saturday mornings from 9 to 12 o'clock.

Instruction was carried on in this department including correspondence, administration of the company, regiment and post. There was not sufficient time to continue instruction in the supply department, and as important changes in this administration were hoped for from the board now in session to revise our Army Regulations, it was considered proper to suspend instruction in that direction.

The month of August, though intensely hot, was devoted to practical field engineering.

The month of September was devoted to practical topography, including field exercises.

The regular school course commenced on October 5.

During the first session, second year, the following course of studies was pursued by the first class:

Art of War.

Constitutional Law.

Drawing and Topography.

Hippology.

Infantry and cavalry tactics.

During the second session:

Art of War, continued.

Topography, continued.

Graphic processes.

Military engineering, in its relation to defensive works, mining, roads and bridges, was not taken up, owing to the want of proper facilities.

Military Hygiene. This course was limited to three lectures, owing to the enforced absence of the instructor, Surgeon A. A. Woodhull, U. S. Army, by Department Special Orders No. 21, dated Headquarters Department of the Missouri, Fort Leavenworth, Kansas, February 18, 1887.

Signaling by flag and heliograph and telegraphy.

Infantry and cavalry tactics, continued.

Practical instruction in artillery, the service of the field piece, the Hotchkiss, Gardner, and Gatling machine guns.

Instruction in outpost, advanced guard, and reconnoitering duties, by practical exercises in the field, extending to distances of from 4 to 15 miles. During these exercises reconnaissance reports and route sketches were required from student officers.

The course of study pursued by the second class during the first session, second year, was as follows:

Minor operations of war, including problems in application of principles.

Field fortifications.

Constitutional Law.

Military hygiene, consisting only of three lectures, owing to the enforced absence of the instructor.

Hippology.

Drawing and Topography.

Infantry and cavalry tactics.

Instruction in artillery, same as first year.

Second session, second year:

Problems in minor tactics.

Constitutional Law.

Hippology.

Drawing and topography.

Signaling with flags and heliograph, and telegraphy.

Infantry and cavalry tactics.

Instruction in outpost, advanced guard, and reconnoitering duties, by practical exercises in the field, extending to distances of from 5 to 15 miles.

‘The experience of the past year has induced me to recommend that the following course of studies be pursued by the class of student officers to enter here September 1 next:-

DEPARTMENT OF MILITARY ART:

Elementary tactics, orientation, function of the arms, advanced guards and outposts, reconnoitering, attack and defense of infantry, of cavalry, of artillery, rear guards, convoys, and detachments.

(1) Recitation, (2) lectures, (3) problems, (4) essays,

Text-book : Shaw's Elementary Tactics, 316 pp.

Principles of strategy and tactics: (a) The modern conditions of a campaign; (b) considerations preceding the opening of a campaign; (c) operations illustrating the relations between the fronts of opposing armies and their respective lines of communications with their bases; (d) operations illustrating the relations between the fronts of opposing armies without special reference to the communications with the bases; (e) the influence of obstacles; (f) tactics.

(1) Recitation, (2) lectures, (3) problems, (4) essays.

Text-book: Home's Precise of Modern Tactics, 139 pp.

Field service of the three arms: Reconnaissance, advanced guards, outposts, day and night service, camps and bivouacs, service marches, convoys, detachments, exercises in attack and defense, including hasty intrenchments.

Practical Exercises in the Field.

DEPARTMENT OF INFANTRY:

infantry tactics, school of the soldier, school of the company, instructions for skirmishers, school of the battalion, evolutions of the brigade, evolutions of the division, marches, camps, ceremonies, organization of United States infantry.

(1) Recitations, (2) Drills, (3) Problems.

Text-book: -Upton's Infantry Tactics.

Infantry field-service : Reconnaissances, advanced guards, outposts (day and night service), camps, bivouacs, convoys, escorts, marches.

Field exercises, practical.

DEPARTMENT OF CAVALRY.

Cavalry tactics, school of the trooper mounted, school of the platoon, mounted, school of the troop, mounted, school of the battalion, mounted, evolutions of the regiment, mounted, evolutions of the brigade, mounted, marches and camps, mounted ceremonies.

(1) Recitations, (2) drills, (3) problems.

Text-books: United States Cavalry Tactics.

Equitation : Bits and biting, seats and saddles, lessons in training and breaking horses, horse equipments and their care.

(1) Recitations, (2) lectures, (3) practical exercises.

Text-books: Deroyer's Bits and Biting; Manual of Horsemanship.

Cavalry field service. Reconnaissances, advanced guards, outposts (day and night service), marches, screening duties of advanced cavalry, camps, bivouacs, convoys, detachments, demolitions.

Practical field exercises.

Hippology: Anatomy of the horse, physiology of the horse, pathology of the horse, veterinary medicine, diseases and treatment, minor and general surgery, materia medica, horseshoes and shoeing, age of horses, purchase of remounts, sanitary science, forage, watering, grooming, ventilation, stable management, infection and contagion.

(1) Recitations, (2) lectures, (3) practical work.

Text -book : Fitzwygram's Horses and Stables.

Clinics as often as practicable, under the direction of the veterinary surgeon.

Practical work at the forge and in the dispensary and infirmary.

In the instruction of purchase of remounts, officers will be required to examine, weigh., measure, test for age, and inspect for defects and gaits all horses presented by the instructor.

DEPARTMENT OF ARTILLERY.

Manual of field-piece, machine guns, mechanical maneuvers, organization of United States artillery, ammunition, marches, pointing and ranges, employment of field artillery in field service and battles, national and personal salutes, official courtesies.

(1) Recitations, (2) lectures, (3) problems, (4) field exercises.

Text-book: United States Artillery Tactics.

DEPARTMENT OF LAW:

Military law, constitutional law, international law.

(1) Recitations, (2) lectures.

Text-book: Woosley's International Law.

DEPARTMENT OF MILITARY SIGNALING AND TELEGRAPHY:

Signaling with flag, torch and heliograph, telegraphy, construction and maintenance of field lines.

Field exercises.

Text-books : Mayer's Manual, Pope's Manual of Telegraphy.

DEPARTMENT OF ENGINEERING :

Field fortifications, field engineering.

(1) Recitations, (2) problems, (3) field works.

Text-books : Wheeler's Field Fortifications, Manual of Field Engineering.

DEPARTMENT OF MILITARY SURVEYING:

Topography and photography.

Mathematics: Enlargement and reduction of maps, surveying, use of instruments, graphic processes, photography.

(1) Recitations, (2) lectures, (3) field works.

Text -books : Richard's Military Topography, Chauvenet's Trigonometry, etc.

DEPARTMENT OF MILITARY HYGIENE :

Fourteen lectures, supplemented by seven recitations.
Text-book: Parke's Military Hygiene.

DEPARTMENT OF MILITARY ADMINISTRATION :

DEPARTMENT OF ENGLISH STUDIES:

Composition and rhetoric.

Recitations.

Text-book: Hart's Composition and Rhetoric.

The course for all student officers being substantially the same, these officers will be formed in one class divided into sections.

Those officers not required to undergo a preliminary examination will form the first section, arranged alphabetically; the remaining officers will form the second (and third, if there be one) section, arranged alphabetically.

The course will be divided into two terms, the first term (first year) beginning September 15 and ending May 31; the second term comprises the second year.

Recitations will be held twice daily (Saturday afternoons, Sundays, and holidays excepted), the morning session from 10 to 12, and the afternoon session from 2 to 3:30 or 4 p. m.

One day in each week will be reserved for a practical application of the principles learned theoretically during the week, the exercises to take place, when practicable, out of doors.

An examination will be held by the school staff upon the completion of each subject, when the standing of the class in that department will be made up as heretofore,

The instructor in charge of each department will exercise a general supervision over the section, and will, unless prevented by sickness or higher authority, visit them daily.

The sections will be under the immediate charge of the assistant instructors, who, at stated intervals, will exchange sections.

daily and weekly reports of recitations will be considered as heretofore, but will not be published. Student officers will be transferred from one section to another upon the recommendation of the instructor in charge of a department, with the approval of the commandant.

During the course of study the subjects specially pertaining to the different arms will be pursued to completion by the officers of the respective arms, and only those subjects of equal general importance be pursued by all student officers.

I have the honor to renew my recommendation of last year, that the details of officers to attend the infantry and cavalry school be made a year in advance of the date of reporting here for duty; also, an alternate should be selected by same authority and at the same time, to replace the officer detailed, should his health or the accidents of the service prevent his reaching the school.

That the officers detailed for students at the school should be less than thirty-five years of age,

That they should have physical health, sufficient to endure active service in the field; also, that they should have application and aptitude for study.

It would render the school far more efficient should the companies on duty at the post be kept full to the maximum standard, with the full complement of company officers, in order that the proper administration of the post could be carried on without the assistance of student officers. That the latter should perform only such military duty as may from time to time be prescribed by the commandant of the school.

In this latitude it is seldom that outdoor drills can be commenced before March 20. The remainder of this month and the following April are the rainy periods, when, many days of this time, outdoor exercises necessarily stop.

By Department order the month of May is devoted to preliminary target practice; June to target practice, when all drills, ceremony or work, however important, are forbidden that would in any way interfere with the target duty.

The months of July and August are hot months,, the thermometer ranging from 90 degrees upward in the shade, a temperature too high for efficient and successful instruction. During the hot period the heavy dews prevent the early morning hours from being utilized for this duty.

The months of September and October, the remaining target months.

It will be seen from this that there is not sufficient time to perfect the soldier in other duties than target. Therefore, I earnestly recommend that drill sheds be erected at this post, one for the infantry and the other for the cavalry. These can be erected with small expenditures of money. The proportionate usefulness of these sheds will be far in excess of the outlay.

During the soft weather of winter and early spring tactical exercises could be carried on in these sheds. In the cavalry arm, the school of the trooper, dismounted and mounted, the platoon and company drills could be carried on to completion, affording at the same time a proper and convenient place for instruction in equitation, the training and biting of horses—a knowledge of which is essential for the mounted officer. In bad weather this shed could also be used for the necessary exercise of the horses belonging to the mounted companies at the post,

In the infantry arm, the individual instruction of the soldier (now so important), the drill of the squad and company perfected, leaving the battalion exercise and skirmish drill to be executed on the outside.

These sheds can also be utilized for preliminary target practice for the officers and men of the command. The company quarters are so cut up into squad rooms they afford no place for this important instruction.

Should these recommendations be approved, the efficiency of the infantry and cavalry school would be greatly increased, by giving proper time for the instruction of the company and student officers in the minor tactics and operations of war.

Plans and specifications have been forwarded through the proper departments for these much needed drill sheds.

I would also recommend that the companies on duty at the school be relieved from the target practice now imposed upon them, in order that the good months for outdoor work may be taken advantage of, for the exercise in minor operations of war, field reconnaissances, map making, military surveying, and topography.

That the commandant of the school be held responsible that the men of the companies have sufficient instruction in target practice to make them efficient soldiers in the field; also, that special reports of the target practice be made, but that their percentages and classification be not included in regimental or departmental reports,

It is also recommended that the sum of \$800 be appropriated from any fund available, to be expended in the purchase and repair of instruments, map making, etc., books of reference, and stationery for printing.

If this amount of money cannot be furnished from the incidental account of the army, I respectfully ask that this amount be asked for and embodied in the next army appropriation bill.

I am, sir, very respectfully, your obedient servant,

A. McD. McCOOK,
Colonel, *Sixth Infantry*,
Bvt. Major General, U. S. A. ,
Commanding.

Adjutant General, U. S. Army,
Washington, D. C.