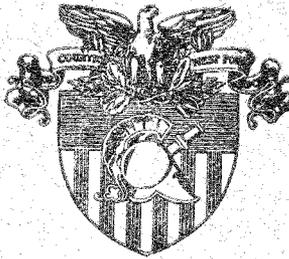
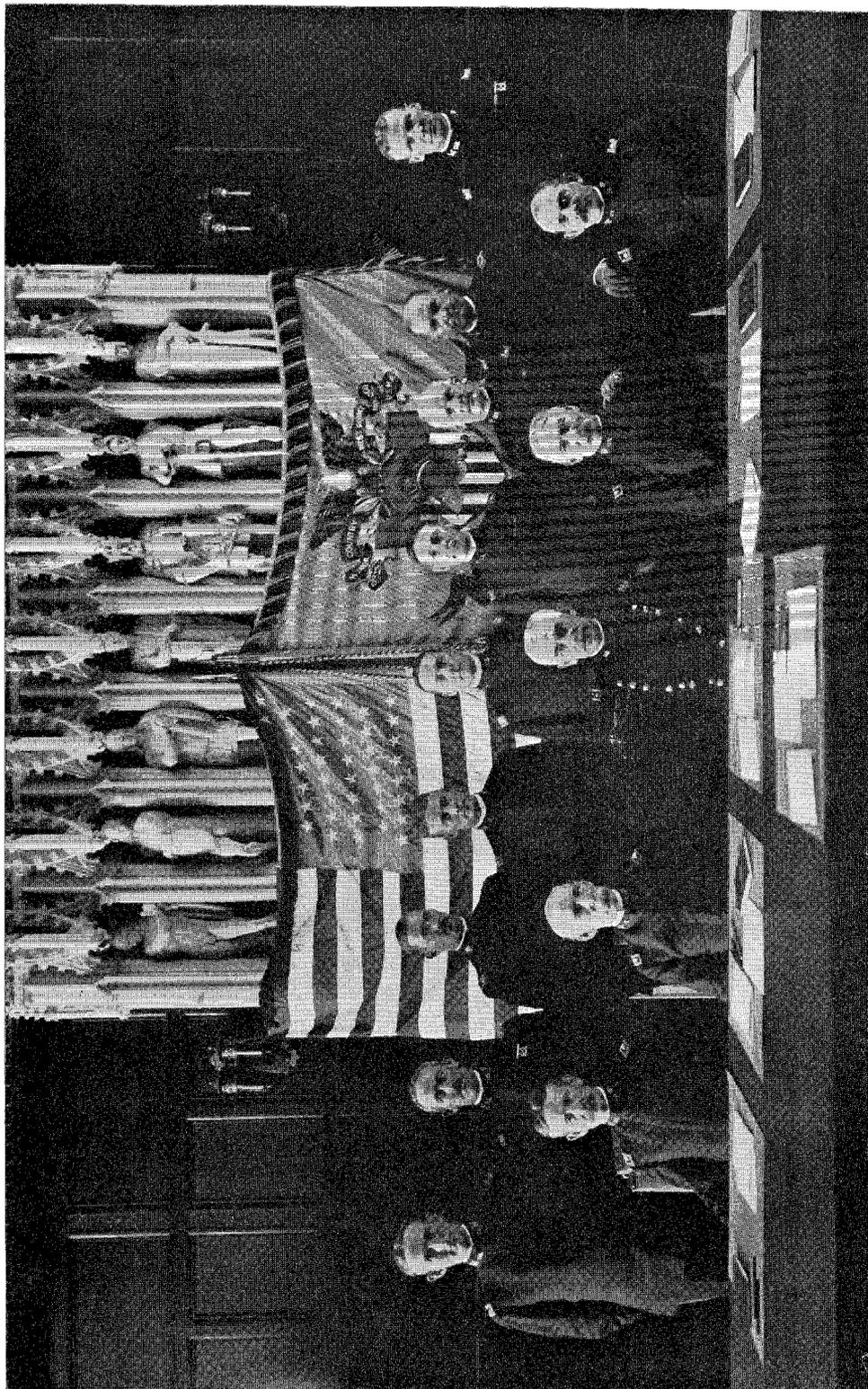


ANNUAL REPORT
OF THE
SUPERINTENDENT.



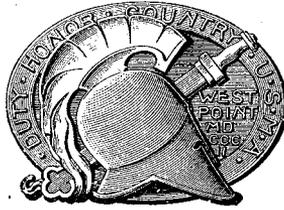
UNITED STATES
MILITARY ACADEMY

1911



THE ACADEMIC BOARD

ANNUAL REPORT
OF THE
SUPERINTENDENT



UNITED STATES
MILITARY ACADEMY

1911

**ANNUAL REPORT OF THE SUPERINTENDENT OF
THE UNITED STATES MILITARY ACADEMY.**

Headquarters United States Military Academy,
West Point, N. Y., September 1, 1911.

SIR:—As directed by the President in paragraph 6, Special Orders, No. 65, War Department, March 19, 1910, the undersigned assumed the duties of Superintendent of the United States Military Academy and command of the Post of West Point, New York, on August 31, 1910, relieving therefrom Major Hugh L. Scott, 14th Cavalry.

Within a month after assuming command, on Saturday, September 24, 1910, the Corps of Cadets while at supper in the mess hall took part in a concerted, disrespectful and insubordinate demonstration, ordinarily known as "silence," which was intended to convey to the officer in charge their disapproval of certain of his official acts. There was a premeditated continuance of this quasi-mutinuous act on the following Sunday morning at breakfast.

The officer concerned acted promptly and properly at the time and took such means as were within his power to stamp out this senseless and entirely uncalled-for demonstration.

A thorough investigation proved that there was absolutely no foundation in fact for the alleged grievances which some members of the Corps of Cadets believed to have existed. It further developed that responsibility rested entirely with the First Class—the class of 1911—all of the cadet officers of which class failed in their duty and instead of using their offices to prevent such a childish and senseless demonstration really aided and abetted therein.

After careful consideration of the findings of the investigating board suitable punishments were awarded.

The officer against whom the demonstration was made is unusually able and has fully demonstrated his efficiency since. He did his duty as was specifically prescribed in the regulations and orders governing the Academy, and exception was taken to his proper methods of performing duty by reason of laxity that had existed in carrying out orders and regulations.

It would seem that some such action by the Corps of Cadets had been brewing for some time and was anticipated by the authorities

during the last summer encampment, when four Army officers were detailed for duty in the camp in addition to the commandant of cadets and eight tactical officers, with instructions to remain awake from midnight until reveille daily to preserve order while the officers of the tactical department slept.

Such action would seem to indicate lack of confidence in the Corps and especially in the cadet officers.

Excepting the above demonstration the discipline of the Corps of Cadets has been satisfactory.

The usual program of theoretical and practical instruction was carried out during the year.

Since the present commandant of cadets, Lieutenant Colonel Fred W. Sladen, 11th Infantry, assumed his duties marked improvement has been apparent in the tone of the Corps, its discipline and instruction.

It is believed that the best results can only obtain when the commandant of cadets is an efficient infantry officer. This, without any reflection whatever on officers of other arms, and without corps or arm prejudice. It stands to reason that an officer who has for many years devoted his whole time and attention to cavalry, field artillery or coast artillery duties and instruction, is not proficient in the fine points of infantry drill and instruction and is inclined for that reason to pass said instruction down to one of his subordinates who is an infantry officer.

The Battalion of Cadets is an infantry organization, there are competent instructors for cavalry and field artillery, and the senior infantry instructor should be the commandant of cadets who should have direct charge of infantry instruction, especially of the Battalion.

The following is an extract from the report of the commandant of cadets:

Headquarters United States Corps of Cadets,
Camp Wesley Merritt,
West Point, N. Y., June 30, 1911.

The Adjutant,
United States Military Academy.

Sir:—

* * * * *

Special attention was given to field training in all arms of the service. During the summer camp the First Class organized as cavalry and artillery were sent out on practice marches on the reservation, camping over night. On these

marches, the cadets were required to perform all the duties of enlisted men, none of the latter being taken along. Every Saturday was devoted to infantry field instruction, covering the use of advance and rear guards, establishing of out-posts, making reconnaissance and attack and defense of positions, with small forces. A six-day practice march by the entire Corps was made at the end of camp.

This is the first year that instruction has been given under the new firing manual. The changes and more difficult course of rifle practice in the new firing manual makes comparison of the record of the class of 1911 with that of former classes impossible. Greatest interest was manifested by every member of the class. Two cadets qualified as expert riflemen, thirty-two as sharpshooters, twenty-two as marksmen and twenty-eight not qualified.

The Third Class fired Special Course "A."

It is strongly recommended that steps be taken to construct and equip gallery ranges in the basement of the gymnasium. With these ranges, much of the time during release from quarters in the winter could be devoted to instruction in rifle and pistol practice.

Plans and estimates for these galleries have been submitted.

Practical instruction in coast artillery has covered for the First Class instruction in fire control and service of the piece for the 6-in. rifle and 12-in. mortar. For the Third Class instruction and drill with the 6-in. rifle and 12-in. mortar.

The results obtained during the five days devoted to coast artillery drills and target practice, August 15th to 20th, at Fort Hancock, N. J., were very satisfactory. Cadets have no drills with the 10-in. rifle before going to Fort Hancock. In the case of the 6-in. rifle and 12-in. mortar, the manning details used for these guns at Fort Hancock, N. J., did not have an opportunity of having more than two or three drills together before going to that post for practice, on account of other drills and duties.

Major (then Captain) C. P. Summerall, 3d Field Artillery, was relieved from duty in this department in April, 1911, after a tour of service of five and one-half years and was succeeded by Captain McCloskey. Due to the former's ability, energy and judgment unusual results have been obtained in the development of the course of instruction in artillery and in the interest aroused therein among cadets. The personnel of the field artillery detachment has been brought to a high state of efficiency and the equipment up to date and complete. These conditions continue under Captain McCloskey.

Due to the excellence of the ammunition furnished by the Ordnance Department and its uniformity, the service practice for field artillery in June, 1911, was highly satisfactory. A battery of new model 4.7" siege guns has been received during the year and instruction given in handling these pieces.

Due to the many demands upon the detachment of field artillery, it is urgently recommended that its enlisted strength be increased by 34 men. A greater degree of efficiency and contentment would result.

The method of instruction of the cadets in riding during the past year has not been changed. The work has progressed satisfactorily. Great benefit has been received from the use of that part of the new riding hall which has been completed. Special attention has been given in equitation to the seat and the

use of the 'aids.' A number of new horses was received during the past year from the Remount Station at Fort Reno, and they have proven highly satisfactory.

The new gymnasium was completed during the year. On account of increased facilities, instruction in gymnastic exercises, fencing, boxing, swimming, and wrestling, has been more complete than usual. Cadets of all four classes have had instruction. This work, under Captain Koehler, and his assistants, has been most satisfactory.

The class of 252 new cadets, admitted on June 14, has, under the command of Captain R. E. Longan, infantry, made remarkable progress in the preliminary drills and duties of a cadet and will be taken up for duty with the Battalion on the 4th of July.

Great credit is due Captain Longan, his assistant Lieutenant Farnum, and the members of the First Class detailed over them for the results obtained with such a large class in so short a time.

* * * * *

Effort will be made to procure material, &c., for constructing and equipping gallery ranges in the basement of the gymnasium and to have the enlisted strength of the cavalry and field artillery detachments increased, which is absolutely necessary in view of the increased number of cadets.

Rebuilding and Enlarging of the Military Academy.

Very careful study and consideration were given to ascertain exactly what had been accomplished and what was still to be done under the original plans for the rebuilding and enlargement of the Academy.

From all that could be ascertained the general situation was as follows:

The sum of \$7,500,000.00 was authorized by Congress for the enlargement of the Academy. This amount was in three separate appropriations, authorized by the following Acts of Congress:

\$5,500,000 for buildings and improvements . . .	June 28, 1902
300,000 for increased water-supply of Post . . .	April 28, 1904
1,700,000 for buildings and improvements . . .	June 28, 1905

On September 1, 1910, the following expenditures for buildings, improvements, &c., under the original plans had been made:

1. Architect's and other fees	\$303,070.97
2. Survey of reservation	8,115.97
3. Purchase of Dassouri property	20,000.00
4. Enlargement of cadet mess hall	127,349.10
5. Quarrying stone for buildings, walls, roads, &c.	203,059.69
6. North cadet barracks, including lighting fixtures	438,705.94
7. Sixteen sets of officers' quarters, including lighting fixtures	282,139.85
8. Eight sets of officers' quarters, including lighting fixtures	232,503.28
9. Three sets of officers' quarters, including lighting fixtures	85,123.22
10. Chaplain's quarters, including lighting fixtures	37,381.60
11. North bachelor quarters, including forty sets of quarters (eight sets unfinished)	285,382.04
12. Cavalry and artillery barracks, stables and gunshed, in- cluding lighting fixtures	415,932.65
13. Post headquarters, including lighting fixtures, and vacuum cleaning plant	510,607.64
14. Heating and lighting plant and distributing system	765,991.25
15. Gymnasium, including lighting fixtures	456,822.00
16. Chapel, including lighting fixtures and pump	434,520.42
17. Chapel furniture, exterior doors and interior woodwork	13,105.00
18. North battalion guardhouse and lighting fixtures	33,917.84
19. Remodeling basement of south cadet barracks, new heat- ing, plumbing, and electric-lighting system, also lighting fixtures	172,482.40
*20. Wiring old buildings for electric light, lighting fixtures for same, changing electric motors, and new motors for same	57,898.00
*21. Riding hall, including estimated cost of lighting fixtures, \$3,300	582,433.44
*22. Removal of and erection of old cadet chapel as mortuary chapel	32,000.00
23. Improvement of water-supply	365,128.74
*24. Removing fixtures from interior of old cadet bathhouse and sinks, and changing two large rooms on first floor of west academic building into eight section-rooms	2,717.28
*25. Extending telephone system	3,960.55
26. Completing subbasement of officers' mess and alterations on second floor	3,500.00
*27. Addition to shops, ordnance laboratory	8,800.00
28. Grading roads, retaining walls, sewers, water and gas mains, surveys of buildings, additions to south dock, demolishing old buildings	649,997.63
29. Furniture for post headquarters	4,604.93
30. Steel lockers for north and south cadet barracks, gymnas- ium, power house and post headquarters	12,800.42
31. Alterations to northwest angle of south cadet barracks for officers' quarters	9,625.27
32. Contingencies and office expenses, advertising, printing of plans and specifications, salaries of civil engineers, superintendents of construction, surveyors, rodmen, draftsmen and clerks	194,493.80
	<hr/>
Error, to be deducted	\$6,754,170.92
	2,159.03
Total	<hr/>
	\$6,752,011.89

*Not completed.

As closely as the constructing quartermaster could estimate and with the completion of the riding hall there would be a balance of \$250,000 of the \$7,200,000 that had been appropriated. This, with the \$300,000 yet to be appropriated of the \$7,500,000 would make available for the construction of the new academic building, \$550,000, with which it was hoped said building might be completed. Contracts have been awarded to James Stewart & Company, Philadelphia, Pennsylvania, for the construction of the east academic building, with some modifications, at an estimated cost of \$396,631.25, and with the completion of said building the original appropriation will be exhausted.

The following is a list of the buildings and improvements with their estimated cost, yet to be completed, from which it is apparent that about \$3,000,000 is necessary to complete the original plan. That amount was estimated for and included in the book of estimates last year, but was stricken from the Military Academy Appropriation Bill when considered by the House and Senate during the last session of Congress:

* 1. New academic building	\$550,000
* 2. Cadet headquarters and cadet store	400,000
* 3. Hotel	250,000
* 4. Guardhouse and fire-engine house	65,000
* 5. Post exchange	100,000
* 6. Laundry	100,000
7. Children's schoolhouse	50,000
* 8. Quarters for Superintendent and staff officers, official visitors, and tower connected therewith	350,000
* 9. Elevator from railroad station	50,000
*10. Memorial arch connecting east and west academic buildings	50,000
11. Completion of officers' mess and quarters	21,500
12. Alterations to west academic building	30,000
*13. South battalion guardhouse	30,000
14. Completion of interior of memorial hall	25,000
*15. Quartermaster and commissary storehouse and shops	300,000
*16. Quartermaster stable and wagon-shed	100,000
17. Enlarging band barracks, and remodeling old artillery barracks and post exchange for field musicians' barracks and band- practice room	40,000
18. Freight shed and dock, and freight conveyor at north end of post	115,000
*19. South gate guardhouse	30,000
*20. Quarters for married enlisted men at south end of post	50,000
*21. Two double sets of non-commissioned officers' quarters	20,000

*22. Army service barracks.....	\$125,000
23. Remodeling engineer barracks.....	10,000
24. New south dock.....	25,000
25. Special fittings for academic building.....	25,000
26. Furniture for cadet headquarters.....	2,500
27. Public stables.....	10,000
28. Roads, retaining walls, grading, sidewalks, extension of sewer system, water and gas mains to new buildings, extensions to electric system.....	500,000
29. Contingencies, including architect's fees, salaries of superintendents of construction, engineers, surveyors, clerks, office expenses, advertising, printing specifications, lighting fixtures for new buildings.....	300,000
30. Demolishing old buildings.....	15,000
	<hr/>
* Plans of buildings approved by the War Department.	\$3,739,000

The original plans were made in the spring of 1903 after competition by the following prominent architects:

Cope & Stewardson, Philadelphia	Charles C. Haight, New York
Heins & LaFarge, New York	D. H. Burnham, Chicago
Carrere & Hastings, New York	Cram, Goodhue & Ferguson, Boston
Peabody & Stearns, Boston	McKim, Mead & White, New York
Eames & Young, St. Louis	Frost & Granger, Chicago

The plans of Messrs. Cram, Goodhue & Ferguson were accepted by a jury of award consisting of—

Lieutenant General John M. Schofield, U. S. Army,
Colonel Albert L. Mills, Superintendent of the U. S. M. A.,
Walter Cook,
George B. Post,
Cass Gilbert,

appointed by the Secretary of War to advise him in the matter.

That the amount appropriated is not sufficient is due principally to increase in the cost of material and labor and contingencies that could not be foreseen until the work was undertaken.

It is hoped that the additional amount necessary will be made available as soon as practicable so that this work may continue to completion. The longer it is delayed the greater will be the cost.

Academic Departments.

The academic period as approved by the Act of Congress of March 2, 1907, was four years and three months, the new cadets reporting annually on March 1.

This brought the new cadets here at a very unseasonable time of the year, and there was additional objection in that they began their academic work while being whipped into shape militarily.

Nearly one hundred years' experience had led to the abandonment of the admission of cadets in September. After very serious consideration the Academic Board unanimously recommended return to the four-years' course. With few changes the curriculum for the four years and three months could be practically covered in four years. This recommendation was approved by the War Department and new cadets will hereafter enter about June 15, yearly. This is as it should be and enables the new cadets to receive proper military instruction and become environed during the summer encampment, a period of two and one-half months, before beginning academic work on September 1.

Great credit is due the heads of the academic departments and their assistants for the unusual record made this year in academic instruction.

A conscientious effort is made by these officers to teach and to carry along every cadet who does his best and is of good character and physique. In each department an instructor is available during cadet recreation hours, daily, except Saturdays and Sundays, to give instruction or assistance to any cadet who desires it in the subject in hand.

As a result of this conscientious endeavor no cadet was discharged for deficiency in the December, 1910, examination; four members of the Fourth Class then deficient in mathematics were turned back to the incoming class. No such record has been made in respect of cadets discharged for deficiency since the Civil War.

In the June, 1911, examination the entire First, Second and Third Classes were proficient in all subjects, the former graduated and the other two classes were advanced.

On completion of the said courses in March, 1911, one cadet of the Second Class was discharged for deficiency in ordnance and gunnery and three cadets of the Third Class were deficient in mathematics, two being turned back and one continued with his class to make up the deficiency in June.

In the Fourth Class only four cadets were deficient and discharged, three of whom had been formerly declared deficient and were either turned back or reappointed. The fourth cadet has been reappointed.

Five cadets were therefore discharged for deficiency in studies during the academic year as against 48 so discharged last year, 21 of whom, however, were cadets of the Fourth Class discharged as a result of their first, the June, examination.

This unusual condition could not obtain but for the conscientious, devoted and unusual efforts of all in the academic departments to whom belong the credit for this commendable achievement.

The work of all academic departments has been unusually satisfactory which is emphasized by the care taken in the instruction of cadets resulting in a very low percentage of deficiencies, mostly in the lowest class.

Department of Civil and Military Engineering.

The course in civil and military engineering remained unchanged during the year. All cadets were proficient both at the semi-annual examination in December and at the annual examination in June. The professor of engineering is writing a new text-book on "Organization" to conform to the present field service regulations. The annual trip of the First Class to Gettysburg with a view to studying that campaign on the field was made April 30 to May 3, 1911. On return each member of the class was required to submit an essay on the campaign or some portion of it—some were excellent productions.

The following is the report of the head of the department on that trip:

West Point, New York, May 6, 1911.

To the Adjutant, U. S. M. A.

Sir:—In compliance with your instructions to give a full report on the visit of the First Class to Gettysburg, Pennsylvania, showing the routine followed and the instruction given, I have the honor to submit the following:

In order to give the class a conception of the importance of the battle of Gettysburg and its relation to other events of the Civil War, the first step was a short study of all the campaigns and military events of the Civil War which preceded the battle. This was followed by as complete a study of the campaign and battle itself as time would permit, and included all the movements of both

armies from the Rappahannock to Gettysburg and the movement of brigades on the battlefield.

The movements on the map were shown by cardboard blocks, representing brigades. Corps were represented by different colored cards marked by corps badges; the divisions by the red, white or blue-headed pins employed in fastening the blocks to the map; brigades by names on the blocks. The map was backed by cork mat and placed in a vertical position.

The maps used were copies of those prepared by the Gettysburg Park Commission.

While the study of the map was in progress, descriptions of special features were read in the section-room from various sources; viz., the articles by Generals Law, Kershaw, Alexander and others from the *Battles and Leaders*; Colonel Freemantle's account in Blackwood, 1863; Colonel Dawes' account in Ohio Commandery series. Extracts were also read from other articles.

The armament, equipment, and organization of both armies, were thoroughly studied. Several written recitations on the subject were held and it is believed when the class went to Gettysburg it was as well prepared to study the movements on the field as could be done in the time allowed.

The special train engaged for the class left West Point at 7:30 p. m. and arrived at Gettysburg at 5:10 a. m. After breakfast at the hotel, the class started for the field in wagons at 8 a. m.

Several years' experience has taught me that the best work on the main battlefield can be accomplished by dividing the class into four groups.

Four distinct routes can be planned for covering the field in two days. These routes are so selected that the groups do not interfere with each other.

Each group consists of cadets from different parts of the class. In this manner the cadets are well in hand and can readily ask questions of instructors or of the cadets who are better informed than themselves. The field is traversed partly in wagons, partly on foot. In going around the field cadets are questioned, explanations are made, particular features of the topography are pointed out and everything is done to make the visit of real practical benefit.

On the first day the class was engaged from 8 a. m. to 1 p. m. in visiting the main battlefield, and from 2:30 to 5 p. m. in visiting the cavalry field. On the second day the main field was again visited from 8 a. m. to 1 p. m.

While at Gettysburg the class was invited during leisure hours to visit the offices of the Gettysburg Park Commission and inspect models, maps, photographs, etc.

In our visit to the field we were accompanied by General Lomax of the Gettysburg Park Commission, Colonel Cope, the Chief Engineer of the Commission, whose assistance on this and other visits has been invaluable, and Captain Long, the guide of the Commission, who described to some of the groups incidents of the battle.

At 7:30 p. m. the special train left Gettysburg and reached West Point at 6 a. m.

*

*

*

Besides the members of the class and the instructors of the department, Colonel Tillman, Captain Newell, Lieutenants McDonald, Farnum and Bull were present during the two days.

Inclosed herewith I send a copy of the instruction and program and a few of the theses written by the cadets on some feature of the field of operations.

Very respectfully,

G. J. FIEBEGER,
Professor of Engineering.

Department of Natural and Experimental Philosophy.

The course in philosophy, consisting of mechanics, sound, light, and astronomy, was carried out satisfactorily. All cadets of the Second and Third Classes taking the course were proficient.

The following is an extract from the report of the professor of philosophy:

The Second Class Course, 1910-1911.

This course began September 1, 1910, with a class membership of 96, one absent sick, present 95. The course in sound and light covered the period September 1-February 8, and the course in astronomy February 9-June 3, alternating daily by halves. No examination was required in either subject as the entire class made satisfactory progress during the year. The average marks in sound and light were from 2.94 to 2.19 (98 per cent. to 73 per cent.), and in astronomy from 2.94 to 1.96 (98 per cent. to 65 $\frac{1}{3}$ per cent.). The lowest mark in this case, 1.96, included an average of 2.19 on written general review, which established proficiency under paragraph 52 of the Rules of the Academic Board.

The class ended the course with 94 members, one having been discharged for deficiency in another department.

The Third Class Course, 1910-1911.

The Third Class began the course in mechanics, September 1, 1910, the class alternating daily by halves throughout the year. The membership of the class was 102 at the beginning of the course, one absent sick. Later one resigned and two were turned back for deficiency in another department, leaving 98 members at the end of the course. No semi-annual examination was held, but at the end of the year 30 members were examined on account of unsatisfactory progress on the written general review, under paragraph 52 of the Rules of the Academic Board. All of these were proficient on the examination, and the average marks of the class for the term ranged from 2.88 to 1.85 (96 per cent. to 61 $\frac{2}{3}$ per cent.). The cadet who made the lowest average passed the examination with a mark of 2.35. The examination marks given by the instructors were from 2.97 to 2.00 (99 per cent. to 66 $\frac{2}{3}$ per cent.). The impression of proficiency on the papers with low marks, however, was very much more favorable than would be indicated by the marks. In checking the lowest paper and marking so as to allow for knowledge shown in the answers to related questions I should estimate the results from good to very nearly perfect. The best mark was made by a cadet whose average for the term was 2.155. Eight

cadets standing higher than this were examined, the highest one having a term average of 2.374. The general grasp of the principles was such that I am confident that the cadets making the lowest marks would have supplied, on an oral cross-examination, many of the deficiencies and inadvertences in their written work.

Department of Mathematics.

The course in mathematics was carried on with satisfactory results and with but few deficiencies. The following is an extract from the report of the professor of mathematics:

The prescribed course in mathematics for the Fourth Class for the year required daily recitations between September 1 and June 3. Algebra, begun the previous March, was concluded; plane and spherical trigonometry, plane and solid analytical geometry, and descriptive geometry exclusive of linear perspective were completed. The only variation from the previous year's work was the postponement of the course in linear perspective to next year. The ten lessons usually spent on that subject were devoted by the lower third of the class to an additional review of analytical and descriptive geometry. The upper two-third were given extra work in the transformation of coordinates and practice in the solution of loci problems and curve tracing.

Fine and Thompson's Coordinate Geometry was adopted with the approval of the War Department as a text-book in analytical geometry and portions of it were used with the upper sections of the Fourth Class to replace corresponding parts in the text of Smith and Gale.

Examinations were held in December and June. Five cadets were pronounced deficient in December in a class of 132, four of these were suspended to join the next class and one (a foreigner) was continued without standing.

Nine cadets were pronounced deficient in June in a class of 127. Six of these were turned back to the next class, two were discharged and one (a foreigner) was recommended for withdrawal.

The prescribed course in mathematics for the Third Class required recitations daily from September 1 to October 31, and on alternate days from November 1 to February 28. Within this period differential and integral calculus and least squares were completed. No variations from the previous year's work were made nor were there any changes of text for this class.

Examinations were held in December and March. Three cadets were pronounced deficient in March in a class of 100. Two were turned back to the next class. One was conditioned and passed a reexamination in June.

In addition to their regular work, the instructors of the department have attended conferences in the afternoons conducted by the professor and associate professor, in which they have been schooled in the methods of instruction and in the subject matter of the various text-books.

Department of Chemistry, Mineralogy and Geology.

The course in chemistry, mineralogy and geology was carried on with satisfactory results during the year by the Second and Third Classes, all members of which were proficient.

A serious loss to the Academy and to the service will come with the retirement of the head of this department, Professor Samuel E. Tillman, on October 3d next.

Since his graduation in 1869 Professor Tillman's whole life has practically been devoted to the interests of his Alma Mater as instructor and professor. Notwithstanding his age he is as fully enthusiastic, devoted, conscientious and alert in the performance of every duty assigned him as he was when with the enthusiasm of youth he began his career here.

The President approved the recommendation of the Academic Board as to Professor Tillman's successor. Lieutenant Colonel Wirt Robinson, Coast Artillery Corps, has been nominated and confirmed as professor of chemistry, mineralogy and geology to date October 3, 1911. Colonel Robinson has been on duty in this department as assistant professor for nearly five years and is thoroughly competent not only to take this department but any other at the Academy. He is a man of all-around ability, and a very satisfactory successor to the able professor about to retire.

The following is the report of Professor Tillman:

The Second Class course—September 1, 1910, to March 1, 1911. On September 1 the class was divided into twelve sections—four sections of 9 members each, six sections of 8 members each and two of 6 members each: the number in class being 96—one absent sick, present 95. The last sections were given the smaller number of members that more time might be devoted to their instruction.

The term was commenced by two review lessons of the principles of chemistry and two in the more important parts of heat; then the daily recitations alternated in the subjects of heat and mineralogy until these subjects were completed on September 29. The daily recitations then alternated in the subjects of geology and electricity until the close of the term, December 23, by which date the geology was completed and twenty-three lessons in electricity had been taken. At the close of the term it was found necessary to examine three members of the lower section in geology and one of these also in heat—they having failed to reach the standard prescribed under Par. 44 of Rules for the Government of the Academic Board and its Committees. The second term of this course was begun on January 3, daily recitations or laboratory exercises in electricity being had until the completion of the course on March 2.

At this term-end no examinations were found necessary, all the members of the lower sections having shown their proficiency under the provisions of Par. 52 of Rules for the Government of the Academic Board.

On March 3 the Third Class commenced the subject of chemistry and heat and at the close of this term, June 4, had completed the chemistry and had taken nine lessons in heat. No examinations were found necessary at the close of the term in June, all the members of the lower sections having shown proficiency under Par. 52 of Rules for the Government of the Academic Board. In this term as many of the sections as possible are given laboratory work instead of recitations. After having gone over *all* parts of the course *once* and other *important* portions more than once, the sections depending upon their degrees of proficiency, are given laboratory work instead of recitations. During the term just closed, June 4, six of the sections had 38 hours in the laboratory, two sections had 24 hours, and two 12 hours; the last two sections devoted all the time to the text.

The method adopted several years ago, of replacing the partial and *general reviews* by laboratory work for all sections making satisfactory progress in the theory of the subject is an excellent one for the cadets, though it involves far more work for the department and instructors. In chemistry, as indicated above, this work is made to depend upon the thoroughness and rapidity with which the essential principles and important technical applications are acquired. The object of this laboratory work in chemistry is to increase interest, fix in mind important general principles and give a certain facility in chemical manipulation and a small amount of analytical work. The time is too short to claim *much* of the *unique* training which pertains to a laboratory course of sufficient length. The electrical laboratory work is upon a different footing and a more considerable amount of such work is required of all the class, but even in this subject the sections acquiring the theory most readily are able to apply it in more directions and consequently are given a greater amount of laboratory work. During the academic term which closed March 2, the upper sections were given about 75 hours in the electrical laboratory and the last three sections about 50. It is a very difficult problem each year to decide upon the dividing line between the cadets who would gain by laboratory work rather than recitation, but the line is important and can be drawn satisfactorily except for a *few* members near the two sides of the line, and it is generally possible to transfer them at subsequent dates if mistakes appear to have been made in drawing the dividing line. The developments of late years which make such divisions necessary and beneficial have very greatly increased the requirements of the officers and of the civilian attendant. In this connection I would call attention to the fact that from the date of the large appropriations for increasing the facilities of the Academy a great amount of additional and necessary work in assisting the Superintendent and his constructing officers has been thrown upon the academic heads of departments; much of this added work was of equal or more importance than the legitimate work of the professors and could not be avoided; at the same time, I think that many other demands upon the heads of departments were established which were not as important as their department work and which were an unnecessary burden.

Under the present administration the onerous and time-wasting task of parading at all sorts of military performances has been abolished to the great relief of the instruction work. I would respectfully urge that the heads of departments be exempted as rapidly and as much as possible from all but important work not strictly pertaining to their departments. I am sure from my own experience that any department properly looked after should consume one's entire energy at all times and this is especially so with the new heads of departments, and there will be five during the next academic year.

Department of Drawing.

Until his illness in February, 1911, the work of the department of drawing was ably conducted by Professor Charles W. Larned, and since February 18, 1911, the work of the department has been under charge of 1st Lieutenant Pelham D. Glassford, 5th Field Artillery, assistant professor.

Unfortunately for the Academy and the department Professor Larned died June 19, 1911. The following order of the Superintendent and resolutions of the Academic Board best indicate the views of the authorities of the Academy in their great loss:

Headquarters United States Military Academy,

West Point, N. Y., June 20, 1911.

General Orders,
No. 25.

It is my sad duty to announce the death of Colonel Charles William Larned, U. S. Army, professor of drawing at this institution, at Dansville, N. Y., June 19, 1911.

Professor Larned was graduated from the Academy and commissioned second lieutenant in the 3d Cavalry June 15, 1870.

On October 10, 1870, he was transferred to the 7th Cavalry and was promoted first lieutenant in that regiment June 25, 1876.

The first four years of his service were with his regiment, during which time he took part in the Yellowstone expedition of 1873. In 1874 he was assigned to duty in the department of drawing at the Military Academy, and in July, 1876, succeeded the late Professor Robert W. Weir as the head of that department.

For thirty-five years he directed the instruction in his department with marked ability and developed it along the lines of greatest usefulness to the Army. Alert and resourceful, he constantly modified the system of instruction to meet the new requirements of the military profession.

As a member of the Academic Board he labored conscientiously and unselfishly for the best interests of the Academy. An accomplished writer—he used his pen to lay before his countrymen the aims and needs of the Academy in a way that added greatly to its reputation and to its sphere of usefulness. As chairman of its Advisory Board and its architectural expert, he was tireless in studying the plans of its recent development and in making many valuable

suggestions for their improvement. As chairman of the committee on the revision of the course of studies, he was indefatigable in his efforts to bring the course to its highest state of efficiency for the Academy and the Army.

Professor Larned was a man of broad culture and wide reading and showed keen interest in all matters relating to the Academy, the Army, and to public affairs in general. His interest in education was confined not alone to the Academy, as his writings show, but embraced the broad field of public education in the country.

His associates, in the Army and in civil life, will ever remember his genial personality, his courteous manner, and his sympathetic interest. To the members of the Corps of Cadets he was a friend on whom they relied for counsel and advice. In his death, the country, the Army, and the Academy have suffered a great loss.

The officers of the Army on duty at the Academy and of the Corps of Cadets will wear the usual badge of mourning for thirty days.

THOMAS H. BARRY,
Major General, U. S. Army,
Superintendent.

Extract from the Proceedings of the Academic Board.

United States Military Academy,

West Point, New York, June 26, 1911.

The following preamble and resolution were adopted:

Whereas, It has pleased Almighty God in the exercise of His Divine Providence to take away our colleague, *Charles William Larned*, Professor of Drawing, the Academic Board desires to place upon its records its appreciation of his service and character and its deep sense of the loss sustained in his removal.

In Professor Larned's service of thirty-five years as head of the department of drawing he not only directed his best efforts to the efficiency of his own technical work, but was also specially devoted to the interests of the Military Academy as a whole, to the improvement of its curriculum, and to securing the necessary means of increasing its facilities for effective work in all of its branches; while by personal conduct, by writing and in speech, he was ever ready to exemplify the significance of the motto of the Academy, "Duty, Honor, Country."

His genial personality, his courteous manner, and his sympathetic interest have long been impressed on his associates of the Academic Board, who realize that they have lost a devoted and distinguished colleague, and the Military Academy an honorable and accomplished son.

Resolved, That the foregoing be entered on the record of the proceedings of the Academic Board, and that a copy thereof be sent to the family of its deceased member.

THOMAS H. BARRY,
Major General, U. S. Army,
Superintendent, President Academic Board.

ROBERT C. DAVIS,
Captain of Infantry,
Adjutant, Secretary Academic Board.

After serious consideration of the records of all officers known to be applicants and others who had special qualifications in this line the Academic Board recommended the appointment of Major E. R. Stuart, Corps of Engineers, which recommendation was approved by the President and Major Stuart has been nominated and confirmed as professor of drawing, United States Military Academy, to date October 4, 1911. As Major Stuart is ten years younger than Colonel Robinson the appointing power very properly nominated him as of the day after that on which Professor Robinson's appointment becomes effective.

Major Stuart is not only well versed in the requirements of this department but is an all-around man, qualified to head any department, thus enhancing his value as a member of the Academic Board.

Department of Modern Languages.

The head of the department of modern languages, Professor Cornélis DeW. Willcox, entered upon his duties as such on September 18, 1910, and has conducted that department with very satisfactory results.

Professor Willcox is an accomplished linguist and speaks fluently French and Spanish, the two languages taught in this department.

Effort has been made to have instructors in the department of modern languages ordered abroad during the summer vacation to study languages with a view to their improvement as linguists. While this recommendation was not approved some of the officers concerned at their own expense have gone abroad to devote the entire time of their vacation to study. As this makes the officer not only more proficient as an instructor at the Academy but of increased value to the Government, it would seem only proper that the United States should order such officers abroad, thus relieving them of the expense of such a trip. As many of these officers are married it means keeping up two establishments during their absence for this study period.

Professor Willcox reports as follows:

I took charge on September 18, 1910, and for the academic year just closed, continued matters as I found them.

In French, one text-book was discontinued during the year, being the pamphlet "French Verbs and Prepositions, Idioms, Letters." Two text-books, "Le Petit Parisien" and the "Courier des Etats Unis," were dropped for the

next year, their places being taken by "Scientific French Reader." The entire course has been readjusted to meet the conditions arising from the resumption of the old four-year schedule.

In Spanish no changes were made. But, as in French, a readjustment will be necessary in the year opening September 1.

I have pleasure in commending all the instructors of the department for faithful and efficient service.

Department of Law.

The department of law was very satisfactorily conducted by Lieutenant Colonel Walter A. Bethel, who reports as follows:

The studies pursued in the course of law were those prescribed in the curriculum, namely: Elementary law, constitutional law, international law and military law. Six lectures of an hour each were given by the head of the department, and numerous other shorter lectures were given during parts of the recitation periods.

After a year's observation of the method of instruction by recitation at the board which had been pursued in the department of law for many years, I was convinced that it was not adapted to instruction in this department for the following reasons:

(1) Much of the cadet's study time was consumed in memorizing the order in which the test was arranged so that he might not omit anything under the topics assigned him.

(2) Cadets at their seats could not be made to give satisfactory attention to recitations. But one cadet was therefore receiving instruction at one time instead of all.

(3) Much of the recitation period was consumed in permitting a cadet to show what he knew of his subject in order that a just mark might be given.

(4) That method of teaching law was never employed at any other institution of learning and in all probability would not have been adopted at West Point had it not been in use in other departments here to which it is well adapted. The oral examinations by the Academic Board in vogue here until about ten years ago probably caused its retention.

During the past year recitations at the board have been made only on cases from the court reports. Each instructor has questioned the members of his section on the principles and facts of the lesson, giving at the same time such explanation as appeared necessary. This method supplemented by frequent short explanatory lectures by the head of the department is believed to be the best that can be devised for the short course of law at the Academy, and conforms as nearly as practicable to the methods of instruction in the leading law schools of the country.

After a year's test it is the unanimous opinion of all the officers of this department that this method of instruction is much more effective than that heretofore followed. The examinations in elementary and constitutional law showed that the class of 1911 had a much more thorough understanding of those two subjects

than the preceding classes. The good effects of this method of instruction were not so marked in international and military law, though I am convinced that its effects were good in those studies also. Four members of the class were deemed of doubtful proficiency in elementary law, but established their proficiency beyond question in examination in that subject. Twelve were examined in constitutional law and made from 2.4 to 2.8. The review in international law was conducted by written recitation and all members of the class proved their proficiency on that review. Two were examined in military law and proved proficient in that subject.

History.

Inasmuch as the class of 1911 pursued the old curriculum, it had received no instruction in the general history of the world in its fourth-class year and a special course in that subject was given the First Class by this department during the months of March, April and May. This course was supplemented by a series of ten lectures given by Professor James T. Shotwell of Columbia University. A twenty to thirty-minute lecture was given each day on general review by the head of the department.

Department of Practical Military Engineering, Military Signaling and Telegraphy.

On November 1, 1910, Captain Gilbert A. Youngberg, Corps of Engineers, relieved Captain William P. Wooten, Corps of Engineers, as instructor of practical military engineering, military signaling and telegraphy, in command of the detachment of engineers and in charge of the water-supply.

The affairs of these departments have been very ably administered by Captain Youngberg and the conditions of all are very much improved. Captain Youngberg is alert to every detail and to every duty assigned him with corresponding improved results. The following are extracts from his report:

Department of Practical Military Engineering.

Financial.

The annual appropriation of \$2,000 for the use of the department was expended in the purchase of tools, instruments, materials for instruction purposes, for the repair of equipment and for the pay of skilled mechanics from the engineer detachment, as authorized by law.

* * * * *

During the year a 25-horse-power Hornsby-Akroyd oil engine was obtained from the Chief of Engineers without cost to the department and by labor of enlisted men from the detachment of engineers was installed in the basement of the engineer equipment shed. This was to replace a small gasoline engine

borrowed from the ordnance department and which was not sufficiently powerful for the work of the shop. Brick partition walls were erected and a spiral iron stairway placed in position thus affording a very convenient power installation, suitably separated from the shop and practically eliminating all fire-risk. A combination planer and jointer machine was purchased and is now being installed. The machine-shop has been rearranged resulting in better use of the available space and light and in greater economy of operation.

This shop equipment is used for making repairs to ponton and bridge equipage, in the fabrication of materials for instruction purposes, in the preparation of forms and templates used in construction work and for the instruction of the enlisted men of the engineer detachment in the use of machines and in shop methods.

For many years the department has had charge of certain barges and boats used by the cadets for purposes of recreation. During the summer of 1910 three canoes were acquired by the Corps of Cadets and placed in the boat-house. The barges, of which there are two, have been in service for about nine years. They are of very light construction and do not readily lend themselves to repairs. They cannot be kept tight and are no longer serviceable. Their use has been discontinued. Canoes are not deemed safe for use in the river at this point on account of strong currents and the heavy wash created by the large steamers now plying the Hudson. The purchase of other and more suitable boats for the use of the cadets has been recommended in the annual estimate submitted by this department for incorporation in the estimates for the support of the Military Academy.

The department is greatly hampered by the lack of suitable office and store-rooms for the high-grade equipment used in surveying and signal instructions. The office rooms pertaining to the detachment of engineers are also utilized as offices of the instructor of practical military engineering and the officer in charge of water-supply. The result is that the rooms are crowded with the necessary file-cases for records, maps, and plans, drafting tables and other furniture, leaving very little unoccupied floor space.

At present, the surveying and reconnaissance equipment, as well as the signal apparatus and supplies, is stored in two small frame structures where it is subject to changes of weather and to risk of destruction by fire.

It is hoped that when the new academic building shall be finished provision will be made for the necessary office and storerooms of this department.

Cadet Instruction.

Two officers of the Corps of Engineers were on duty in the department throughout the year. On November 1, 1910, Captain William P. Wooten was relieved from duty as instructor of practical military engineering and the undersigned assumed the duty in compliance with paragraph 2, Special Orders, No. 201, Headquarters United States Military Academy.

Additional officers were on duty in the department during portions of the year as follows:

Assisting in the instruction of the Third Class in surveying and the First Class in reconnaissance, summer of 1910.....	5 officers
Instructing Second Class in signaling, fall of 1910.....	1 officer
Instructing detachment of engineers in riding, winter of 1910-1911..	1 officer
Instructing Fourth Class in theoretical and practical surveying, spring of 1911.....	7 officers
Instructing Second Class in signaling, spring of 1911.....	1 officer
Instructing Third Class in practical surveying from June 26, 1911, to date.....	5 officers

Fourth Class.—In consequence of the change in the curriculum instruction in surveying was given during the months of March, April and May instead of in February as heretofore. Special prominence was given to the practical application of the subject of surveying, and only so much of the theory was taught as was thought essential to an understanding of the methods usually employed in the field and drafting-room. Marked attention was given to the use of the slide rule as a labor-saving device in reducing notes and making computations.

Because of special conditions obtaining this year it was possible to augment the course by a progressive series of thirteen field exercises of two hours' duration each. By this means the cadets were made familiar with the mechanical manipulation of the various instruments and the actual conditions of their use.

This proved to be a very valuable addition to the course, and in conjunction with the course given the Third Class during the summer will afford the cadets of this particular class a very creditable amount of actual experience in the use of surveying instruments. In view of the large amount of military surveying and reconnaissance work which now falls to the younger officers of the Army it is to be regretted that this extension of the course can not be made permanent.

Prior to beginning this course in surveying the 17th edition of Johnson's *Theory and Practice of Surveying* was substituted for the 16th edition of the same text, and *Plane Surveying* by Professor John Clayton Tracy was substituted for the manual by Pence & Ketchum. Tracy's work has been found exceedingly helpful to instructors and cadets alike.

Third Class.—During the summer instruction period of 1910, the Third Class (now the Second Class) was given a course in practical surveying consisting of thirteen attendances, each of four hours' duration for each cadet. The instruction was wholly practical; the instruments were carefully explained, together with their uses and adjustments. The instruments were then placed in the hands of the cadets, and under the supervision of their instructors, the cadets were required to make the different adjustments and to use the instruments in surveying a portion of the reservation. Pence & Ketchum's *Surveying Manual* was used as a guide and reference book for this course.

The present Third Class began its course of summer instruction in practical surveying on June 26, 1911. The course for this season is in the form of a series of problems illustrating the use of the various instruments and will close with a combined survey and map of a convenient portion of the reservation.

Second Class.—During the fall instruction period the available time was devoted to visual signaling, instruction being had in the use of signal flags, heliograph and acetylene lantern. During the spring instruction period electrical means of communication were considered and practice was given in running out field telephone and telegraph lines, the field and cavalry buzzers being used in this work. Instruction was also given in the erection of the masts of the field wireless sets and in the transmission of messages by means of the wireless equipment.

Only one-fourth of the class attends this instruction daily, Saturdays, Sundays and holidays being excepted as usual. This arrangement of time makes possible a maximum of fourteen attendances for each cadet, and as the drill period is but one hour in length the actual time for each cadet is very short, and it is disproportionately brief when consideration is given to the importance of signal work in modern military operations.

During the year two complete pack sets of wireless equipment were received from the Chief Signal Officer of the Army. These are very valuable additions to the equipment of the department.

First Class.—The instruction of this class is divided into three periods: summer, fall and spring.

During the summer of 1910 one-half of the class attended daily, Saturdays, Sundays and holidays being excepted, making fourteen attendances for each cadet. Instruction was given in the means and methods of crossing streams, including boat and rowing drills, the construction of floating bridges with canvas pontoons, with wooden pontoons and with rafts; the construction and operation of trail and flying ferries; the construction of improvised pile-drivers and pile-bridges, of trestle-bridges and of improvised boats, using wagon-bodies, and also using improvised wicker frames of various forms over which were stretched canvas wagon-covers.

Five attendances during this period and one during the six-day practice march were devoted to instruction in reconnaissance and sketching as follows: preliminary dismounted work, two days; mounted road sketching two days; combined position sketching two days. During the practice march one-fifth of the class reported daily for instruction in combined position sketching, and a selected detail of eighteen cadets made a combined road-map of the territory through which the march was made.

During the fall period one-fourth of the class attended on each drill day, giving a maximum of seven attendances for each cadet. This period was devoted to field engineering involving instruction in cordage and tackle, in improvising and using various field appliances for engineering work, in the erection of spar, trestle and wooden-truss bridges, and in the use of explosives in making demolitions.

The spring period, one-fourth of the class reporting on each drill day, gave eight attendances for each cadet in the class. The time was utilized for instruction in field fortification work and consisted in the making of gabions, fascines and other revetting material, in laying out redoubts and field works, in planning work and posting working parties, in the construction of head-

cover, splinter-proofs and bomb-proofs, and in the construction of abatis, wire entanglements and other forms of military obstacles.

The amount of time available for the instruction of the First Class in this department is very short and the field of instruction very wide so that each cadet gets no more than a mere outline of what should properly be in a course of this character. A little more time can be gained by making the drill periods during the fall and spring a trifle longer, placing the instruction in this department on the same footing as that in field artillery work.

The Detachment of Engineers.

The United States Military Academy Detachment of Engineers has an authorized strength of ninety-six enlisted men and is habitually commanded by the instructor of practical military engineering. Under existing law the detachment is maintained at the expense of the three Battalions of Engineers of the Army by leaving eight vacancies on the roster of each of the twelve companies of these battalions.

Under this arrangement the detachment consists of eight sergeants, eight corporals, forty first-class and forty second-class privates. From this personnel must be detailed an acting first sergeant, an acting company quartermaster-sergeant, two cooks and two musicians.

This method of providing for a detachment of engineers is unsatisfactory for many reasons, among which may be mentioned the purely provisional character of the organization as an administrative unit, the annually-recurring necessity of providing in the Military Academy appropriation act the extra duty pay for the acting first sergeant and the cooks, and more serious than either of the foregoing, the fact that the proportion of non-commissioned officers is not correct as compared with the number in an engineer company and is far from sufficient for the duties which the detachment is called upon to perform.

Based on the organization of an engineer company the detachment should consist of one first sergeant, one quartermaster-sergeant, seven sergeants, eleven corporals, two cooks, two musicians, thirty-six first-class privates and thirty-six second-class privates.

A bill making permanent the organization as it now exists and adding four privates has passed the Senate at the present special session of Congress and is now in the hands of the Military Committee of the House. It is to be regretted that this bill does not take cognizance of all the facts bearing on the case, but seeks to make permanent a form of organization which was purely temporary and provisional in the first instance, and which was derived from the circumstance that at the time this detachment was formed there were eight companies of engineers in the United States (hence the eight sergeants and eight corporals) and four companies in the Philippine Islands. The lack of non-commissioned officers is made the more pronounced by the great amount of extra and special duty which this detachment is called upon to perform as exhibited in a table elsewhere in this report.

Primarily, the duties of the detachment are to prepare material for and to assist in the instruction of cadets in field fortification, field engineering, surveying, foot and mounted reconnaissance, in visual signaling and in the construction, maintenance and operation of lines of information including telephone and telegraph lines and wireless installations.

The detachment also provides a detail for the post guard, provides escorts and guards of honor, supplies orderlies, furnishes fatigue details for the police and upkeep of the post and performs all the routine duties incident to life at a military post.

In addition to the foregoing duties, which may be considered entirely appropriate to a military organization as such and falling well within the purposes for which it is maintained at the Military Academy, the detachment during the past fiscal year has furnished details for extra and special duty outside the strict sphere of its primary purposes as follows:

DUTY	N.-C. Officers	Pri- vates	Total days (for 1 man)
1. Preserving and marking revolutionary forts, re-doubts, etc.	1		229
2. Supervising and constructing mortar battery . .	2	2 to 7	548
3. Supervising and building new target range. . . .	1	8	378
4. Supervising improvements to roads and grounds marking trails, etc.	1	3	367
5. Supervising repairs to roads Popolopen watershed.	1		17
6. Overseeing construction of dwelling for warden of watershed.	1		64
7. On duty as warden of watershed.		1	365
8. Assistant to range officer during cadet target practice.	1		72
9. Markers for cadet target practice.		12	600
10. Clerk at post commissary.		1	365
11. Clerk at post headquarters.		1	365
12. Assistant at post exchange.		1	365
13. Assistant in Military Academy library		1	365
14. Assistants in academic departments.		3	1095
Total.			5560

During the year the average strength of the detachment present at the post including men sick, in arrest and present for duty has been 90.4, and on this basis the average number of days on extra and special duty for every man in the detachment amounts to 61.5; that is to say, that exclusive of the men on extra and special duty in the department of practical military engineering and in and about the barracks of the detachment, the average man has spent more than one-sixth of his time on extra and special duty.

In addition to the above, ten non-commissioned officers and thirty privates were on duty for a period of five days with the 22d Regiment, National Guard of New York, at the State camp at Peekskill.

The great amount of duty required from the soldier at this post as compared with that at the same rate of pay in the ordinary garrison operates greatly to the disadvantage of the detachment. Reenlistments, except of non-commissioned officers and of the older privates who have families, are very infrequent; applications for transfer to other posts of duty are frequent as are also applica-

tions for discharge by purchase. Little time is left for the instruction of new men in the more or less technical work of the detachment, and under these circumstances the discharge of men competent as surveyors and in reconnaissance duty, versed in the use of the signal apparatus of various kinds and accustomed to the routine of the various cadet drills is keenly felt and their places can be filled with great difficulty. The tendency is to gradually lower the general level of efficiency and accomplishment.

To remedy this undesirable condition the rate of pay for soldiers serving at this station should be slightly increased, and to fill certain special positions in this detachment special grades should be established with somewhat higher pay than is now possible. The detachment should be increased by the addition of one signal sergeant, first class, and three corporals with the rating of master mechanics and pay of thirty dollars per month each.

The condition of barracks is not satisfactory. They are antiquated in design and arrangement and are crowded and inadequate. It is not possible to reserve a room for recreation purposes and the building contains no suitable room if one could be spared. There is but one storeroom, which is small and damp, and must be used for storage of reserve ordnance equipment and supplies, for quartermaster property, and for subsistence stores. The water-closets are in a separate building at some distance from the barracks, which is particularly objectionable in inclement weather. The attic is occupied by a photographic and map-reproduction laboratory pertaining to the department of practical military engineering and, as elsewhere noted, the same department shares the office of the detachment with the officer in charge of water-supply.

During the winter of 1910-1911 instruction schools were organized for the enlisted men in surveying and reconnaissance, in photography, and map-reproduction work, in signal and electrical work and in carpentry, blacksmithing and general shop-work. The non-commissioned officers and a few selected privates were given a course in riding in the riding hall, Lieutenant E. M. Zell, 7th Cavalry, having charge of this feature. This was the first time special instruction in riding had been attempted and the results were very gratifying and fully justified the efforts made. It is believed that the detachment of engineers should have ten mounts permanently assigned to it in order to keep the men instructed in riding and to permit of their instruction in mounted reconnaissance duty, as well as to provide mounts for men on special duty as overseers at points distant from the barracks.

Two non-commissioned officers were on duty at the Signal School at Fort Wood for a short time during the early winter.

The discipline of the detachment has been generally good throughout the year. There were, however, four desertions and two prolonged absences without leave. Two of the cases of desertions were directly traceable to causes outside the service and the other two appear to have occurred while the soldier was under the influence of liquor. The two cases of absence without leave were also due to the latter cause. There were four men tried by general court-martial and eleven by the summary court, one of the latter cases resulting in acquittal, the others resulting in convictions.

Mortar Battery.

The act making appropriation for the support of the Military Academy for the fiscal year ending June 30, 1911, authorized the expenditure of \$6,800 for the construction of one skeleton emplacement for twelve-inch mortars for the instruction of cadets. This emplacement was located on the north side of Execution Hollow and was constructed by civilian labor under the supervision of non-commissioned officers of the detachment of engineers employed as overseers.

The emplacement consists of a gun platform mounting two mortars with a corridor in rear for ammunition service and a magazine on each side. The western traverse is surmounted by a battery commander's station.

In order that the emplacement might represent service conditions as to the service of ammunition the gun platform, gun walls, corridor and magazine entrances conform to standard dimensions. The magazines are of standard width, twelve feet, but are reduced in length to sixteen feet. To show as many of the standard features as possible, and at the same time to keep within the appropriation, the walls and roof are reduced to the dimensions requisite to withstand earth pressure only. The paving is reduced in thickness and the gun foundations are designed for sub-caliber fire only. The parapet and traverses are reduced in height and thickness to hold them to the level of the surrounding plain and the height of the walls is correspondingly reduced.

The conductors for lighting and for fire control are laid in conduits facilitating installation and repair. This equipment is as complete as possible.

The battery mounts two 12-inch mortars, model 1896 Mi, formerly installed in the defenses at Fort Preble, Artillery District of Portland, Maine.

Improvements to Roads and Grounds.

The appropriation act for the support of the Military Academy for the past fiscal year provided \$3,000 for carrying on the development of the general plan for improvement to roads and grounds on the military reservation designed under contract.

The general supervision of this work was vested in a board of which the instructor of practical military engineering was the junior member, and as the actual construction work on this project was executed under his direction report is here made accordingly.

The board convened in January of the present year and prepared a general scheme to govern the work and determined the order in which the various routes should be cleared and developed. During February and March one officer and four enlisted men from the detachment of engineers were engaged in locating and marking the routes which were then cleared of timber and brush to a width of ten feet by wood-cutters with the woods foreman in charge.

The cost of location, marking and clearing amounted to \$441.92.

The actual work of improving these routes and making them practicable for traffic was begun on April 10, with one non-commissioned officer and three privates on duty as overseers of the working gangs which were composed of Italian laborers.

As a part of this system the Round Pond pipe-line from Delafield Reservoir to its junction with the Washington Valley road was crowned up and put in condition for light traffic. A road or trail from Lusk Reservoir passing to the westward of Fort Putnam and around the southerly side of Delafield Reservoir was opened to connect with the Round Pond line. A road from the base of Fort Putnam southward to Redoubt No. 1 and Battery No. 1 has been opened, and a return route overlooking the Stony Lonesome valley has been projected and is now under construction. All of these routes can now be traversed by a light wagon although still rather rough for wheeled transport.

In general terms the work has consisted of removing boulders and large stones, clearing out stumps, constructing culverts and rough retaining walls, digging ditches and crowning up the roadway with earth, making common earth roads with necessary drainage. These roads have been so constructed that they may be widened and otherwise improved without loss of the labor already performed.

Preserving and Marking Historic Sites.

The work of preserving and marking Revolutionary forts, redoubts and batteries and other historic sites situated within the limits of the West Point Military Reservation has been continued under the direction of this department.

The appropriation for this work was \$1,500.

A board of officers was originally convened to identify the various sites, determine the true designation of each and the style of marking. Pursuant to the approved recommendations of this board the work during the fiscal year has been executed as follows:

Trimming trees, clearing out brush, rebuilding fallen walls and old parapets and preparing stones or boulders for inscriptions at the following works, viz.: Chain battery, Water battery, Fort Wyllis, Redoubt Meigs, Redoubts Nos. 1, 2 and 4 and Battery No. 1.

Inscriptions were cut in ledges or boulders at the following works: Lanthorn, Water and Chain batteries and at Battery No. 1; at Redoubts Nos. 1, 2 and 4 and at Redoubt Meigs; also at Battery No. 1.

It is believed that these various historic works are now in condition to withstand ordinary wear and tear for many years to come. It will doubtless be necessary from time to time to clear the surrounding slopes of grass, woods, and small brush, and possibly to make minor repairs and earth-fills to compensate for erosion caused by heavy rains and melting snows.

The system of roads and trails now under construction as described elsewhere in this report will make all of these historic sites quite readily accessible, and their restoration and marking will add greatly to the interest of walks or rides about the reservation.

Waterworks.

During the year the supply of water consumed at this post has been drawn mainly from the Popolopen-Queensborough watershed area southwest of Fort Montgomery, N. Y. In common with other water supplies in this portion of the State, the run-off in this area was greatly reduced by the prolonged period of dry weather during the summer and fall of 1910. It appears also that in the operations of the Forest of Dean mine, which is located in the valley of Popo-

lopen Creek, the level of Mine Lake and nearby ponds was greatly reduced and this in turn reduced the run-off during the dry period as compared with the run-off in former years.

The Popolopen Creek (at its normal stage) 20-inch pipe line will deliver daily at Lusk Reservoir 5,100,000 gallons through the main outlet or 3,100,000 gallons through the fountain outlet. On September 9, however, the manometer recorded about 3,000,000 gallons and from that date the amount declined to 300,000 gallons on September 24. From the latter date the amount delivered fell very gradually until October 13 when it fell below the minimum registration capacity of the recording apparatus. From the date last named until November 4 the amount of water derived from the Popolopen watershed was so slight as to be negligible. On the latter date the supply was again normal, and while it has been low at various times since it has always been sufficient to supply the needs of the post.

During the period of reduced supply above referred to the reserve supply at Round Pond was drawn upon with the consequence that, although the year has been unusually dry, there has been no scarcity of water in the distribution system of the post.

During the winter and spring all ponds and reservoirs on the post have been filled and are now overflowing. Round Pond is also at a very satisfactory stage although it has not yet attained its customary high level.

Bacteriological examinations of the raw and filtered water have been made by the surgeon at regular intervals during the year, and his reports indicate that the quality of the raw water has been exceptionally good and the efficiency of the filters as a rule very high.

The per capita consumption of filtered water throughout the year has been very great. The indications are that a large part of the water delivered into the post distribution system is needlessly wasted in stables, cadet shower-baths, in lavatories, toilet-rooms and in excessive sprinkling of lawns by reason of the failure of the persons responsible to turn off the water in each case when no longer required. Undoubtedly there is also the usual loss by reason of leakage in service pipes and fixtures.

As the distribution system consists of a single set of mains none but filtered water is admitted thereto and the waste above referred to places an unnecessary strain upon the filters and increases the cost of maintenance and operation by necessitating more frequent cleaning of filters and washing of sand, the unit costs of which operations are rather high.

The average daily consumption by months is exhibited in the following table:

Water consumption at West Point, N. Y., for fiscal year, July 1, 1910,—June 30, 1911.

* * * * *

The foregoing table indicates a daily per capita consumption of over 500 gallons. The average daily consumption per capita in cities (statistics of 134 representative cities being taken) is 137 gallons, when the service is not metered; when metered it is about 65 gallons only. Comparison of the two figures is hardly fair because of special conditions that obtain at this post on account of the great number of animals and the large amount of water used in the gym-

nasium swimming-pool, in shower-baths and in lavatories. At the same time, it is thought that these uses alone can scarcely account for the difference of over 350 gallons per capita.

The annual appropriation of \$2,000 for the maintenance and operation of the waterworks was expended in cleaning the filter-beds, washing and replacing filter-sand, in the general police of the reservoir site and adjacent roads and grounds and for other necessary work of maintenance and repair.

* * * * *

During the ensuing fiscal year it is expected to reduce the needless waste of water elsewhere mentioned, by employing a soldier on extra duty as inspector with authority to inspect all public and private services with a view of having repairs made when and where needed and fixing responsibility for the waste of water.

Necessary Increase of The Water-Supply.

The work done under this appropriation during the past year falls under sub-heads as follows:

* * * * *

Sanitation of the Watershed.

Inspections have been made at short intervals to determine the general sanitary condition of the watershed, to discover any sources of contamination of the water-supply and to observe the enforcement of the rules and regulations promulgated by the State authorities for the protection of the West Point water-supply. But one instance of violation of these regulations was noted during the year. A horse had been killed or had died through neglect in the vicinity of a watercourse. The carcass was discovered by the warden of the watershed before any damage had been done and was removed. Steps were taken looking to a prosecution of the person responsible for the horse, but no final action was taken because of the difficulty encountered in fixing the ownership of the animal.

Examination of the watershed area indicates it to be in a very satisfactory condition in respect of sanitation, a conclusion which is borne out by the reports of the surgeon in his bacteriological examination of the water entering the reservoir.

Department of Ordnance and Gunnery.

The department of ordnance and gunnery has been very ably administered by Lieutenant Colonel Colden L'H. Ruggles. Owing to a change in the curriculum and return to the four years' course there will be no recitations during the next year, ordnance instruction now reverting to the First Class.

For this reason Colonel Ruggles was relieved before he completed the usual tour at the Academy. He reports as follows:

The course in ordnance and gunnery throughout the year has been the same as for last year and has been attended with the same good results.

In accordance with the curriculum for a four year and three months' course,

approved by the War Department August 10, 1907, and the consequent transfer of the subject of ordnance and gunnery to the second-class year, this subject has been studied by both the First and Second Classes of cadets this year. Owing to the return to a four-years' course and the adoption of a new curriculum in connection therewith, which again places the subject of ordnance and gunnery in the first-class year, the subject of ordnance and gunnery will not be taught during the academic year commencing September 1, 1911.

The shop in the laboratory was enlarged as referred to in my last annual report, and work thereon was completed in time to allow the building to be utilized this year in the instruction of both classes in shop-work. The larger space thus made available for this work, together with the loan of a number of metal-working machines by the Chief of Ordnance, made it possible in the case of all but two machines to assign but one cadet to a machine with greatly improved results as to the efficiency of instruction.

The machines loaned by the Chief of Ordnance are as follows:

1 Pratt & Whitney 3/8" turret machine	1 shaping machine
1 Hendy-Norton shaper, 14" stroke, motor-driven	1 Brown & Sharpe turret lathe, No.2
2 Hendy-Norton shapers, 14" stroke, belt-driven	1 Putnam lathe, 20" swing
1 vertical slotter	1 Ferris & Niles shaper, 14" stroke
1 three-spindle drill press	1 engine lathe, 10" swing
1 Sellers shaper, 18" stroke	1 Fitchburg engine lathe, 16" swing
1 planing machine	1 Pratt & Whitney engine lathe, 16" swing
	1 engine lathe, 16" swing

While these machines are not generally of the latest patterns, and some of them are old and others are much larger than is desirable, they will nevertheless answer very well for instruction purposes until such time as the shop is fully equipped by the gradual purchase of new machines under the appropriation of \$2,000 now made annually for this purpose in the Military Academy appropriation bill.

The number of periods available for instruction in practical work at the laboratory has, since this course was inaugurated, been eighteen. Under the curriculum adopted this year ten more periods have been provided for this purpose by utilizing available time after 3:30 p. m. between December 1 and February 17. It is proposed to devote five of these periods to instruction in forging and blacksmith work, and five to instruction in carpenter work, with particular reference to the method of making the various standard joints in heavy framework. The eighteen periods hitherto available will be devoted to instruction in machine-shop practice.

Ordnance Material.

The armament of the post has been kept in good repair during the year, and the alterations ordered by the War Department in the armament throughout the service have been incorporated in that at the post.

In addition to the regular allowance for small arms target practice for officers and enlisted men and of \$5,000 for such practice for cadets, the following allowance for artillery practice of cadets during the year was made, viz.:

	<i>3-inch Field Gun, Model of 1902.</i>	
290 shrapnel		3000 sub-caliber cartridges
20 high explosive shell		300 blank cartridges
	<i>2.95-inch Vickers-Maxim Mountain Gun.</i>	
145 shrapnel		300 blank cartridges
10 shell, cast-iron, powder-charged		
	<i>5-inch Siege Gun.</i>	
75 shrapnel with full service charges and primers		
25 shell with full service charges and primers		
	<i>7-inch Siege Howitzer.</i>	
75 shrapnel with full service charges and primers		
25 shell with full service charges and primers		
	<i>6-inch R. F. Gun.</i>	
13 rounds with full service charges		400 drill primers
500 sub-caliber cartridges		
	<i>10-inch Gun.</i>	
7 rounds with full service charges		
	<i>12-inch Mortar.</i>	
11 rounds with full service charges		

The allowance for small arms target practice for the coming year is the same as for the year just ended. The allowance for artillery target practice of cadets is as follows, viz.:

	<i>3-inch Field Gun, Model of 1902.</i>	
270 shrapnel		1500 sub-caliber cartridges
20 shell, high explosive		300 blank cartridges
	<i>2.95-inch Vickers-Maxim Mountain Gun.</i>	
145 shrapnel		1500 sub-caliber cartridges
10 shell, cast-iron, powder-charged		300 blank cartridges
	<i>4.7-inch Heavy Field Gun.</i>	
25 shrapnel		25 high explosive shell
	<i>6-inch R. F. Gun.</i>	
13 rounds with full service charges and primers		
500 sub-caliber cartridges with primers		
400 drill primers		
	<i>10-inch Gun.</i>	
7 rounds with full service charges and primers		
50 sub-caliber cartridges with primers		
	<i>12-inch Mortar.</i>	
11 rounds with full service charges and primers		
150 sub-caliber cartridges with primers		

The generous allowances of ammunition for target practice of cadets is of inestimable value to them and to the service by permitting the graduation of young officers splendidly equipped for the continuance of target practice work in the service.

The battery of 4''7 heavy field guns referred to in my last annual report as 4''7 siege guns has been received at this post. The official designation of these guns has now been changed to heavy field guns. Owing to the possible abandonment of one or the other or both of the 4''7 and 3''8 howitzers as service pieces, it is desired to change the recommendation in regard to them made in my last annual report and to recommend instead that one battery of 6-inch heavy field howitzers and one of 3-inch mountain howitzers be issued to this post for cadet instruction as soon as their manufacture has progressed to a point to render this practicable.

The skeleton emplacement for 12-inch mortars referred to in my last annual report has been practically completed and two 12-inch mortars with carriages of model of 1896Mi are now being mounted therein, the work of mounting them being nearly completed. These mortars have been loaned to the Academy only, their permanent emplacement being at Fort Preble, Maine.

Ordnance Laboratory.

An estimate for funds to enable the installation of electric lights and steam-heating apparatus in the barracks at the laboratory has been submitted for incorporation in the Military Academy appropriation bill. This is a much-needed improvement and it is hoped that funds for the same can be obtained.

The barracks is an old structure possessing none of the conveniences as regards electric lights, steam or hot-water heat, toilet, wash, and reading-rooms now found in barracks of modern construction. It is considered that this building should be enlarged and modernized to permit of its accommodating about twenty-five men, and to provide suitable toilet, wash, reading, and amusement rooms for them.

Museum.

A number of exhibits have been loaned or presented during the year.

In response to the request of the accredited representatives of this government at the capitols of important foreign states, the following rifles and ammunition in addition to those previously reported have been received at the museum during the year in exchange for the latest U. S. magazine rifles and ammunition, viz.:

One Italian rifle with one bayonet, one bayonet scabbard, one cleaning rod, one brush-wiper, one oiler, one screwdriver, and twelve cartridges.

One Japanese rifle with one bayonet, one scabbard, one oiler, one ramrod, one screwdriver, one ramrod attachment, one tool, one gun-sling, one scabbard frog, one belt, three pouches, one front sight and muzzle cover, and twenty cartridges.

One Grecian rifle with one bayonet and one scabbard.

One Swiss rifle with one bayonet, one scabbard, one thong and cord, one front sight and muzzle cover, one extra cocking piece, one extra firing pin rod, one extra extractor, one reflecting mirror, one gun-sling, one descriptive pamphlet and sixty cartridges.

One Servian carbine with one muzzle cover and ten cartridges.

One Roumanian carbine with one ramrod and ten cartridges.

One Bulgarian carbine with one gun-sling and ten cartridges.

One Chilian rifle with one bayonet, one scabbard, one rod, one gun-sling, one front sight cover, one belt with three pouches and twenty cartridges.

One Argentine rifle with one bayonet, one scabbard, one front sight cover, and forty cartridges.

One Mexican rifle with one bayonet, one scabbard, one cleaning rod, one front sight and muzzle cover, and one hundred cartridges.

Ordnance Detachment.

The high efficiency of the ordnance detachment has been maintained during the year, but the work now devolving upon it is greater than it can satisfactorily perform without outside help. For approximately two years now the detachment has been aided in its duties by the detail of two privates from the United States Military Academy Detachment of Field Artillery, and even with this help its work is greater than should properly be expected of a detachment of its size. It is considered that the strength of this detachment should be increased to thirty men.

Department of Military Hygiene.

The department of military hygiene has been satisfactorily administered by Lieutenant Colonel Frank R. Keefer, Medical Corps. All recitations were supervised by officers of the Medical Corps, two of whom were ordered here for that purpose. Colonel Keefer reports as follows:

The department of military hygiene was created October 21, 1905, by Executive order and Congressional enactment placed it upon an even footing with the other academic departments. The act making appropriations for the support of the Military Academy for the fiscal year 1911 contained the following provisions: "Hereafter any officer detailed from the Medical Corps of the army as senior medical officer of the post at the Military Academy, whose rank shall not be below that of lieutenant colonel, shall be the professor of military hygiene." In conformity with the above act, the incumbent became professor of military hygiene August 9, 1910, vice Lieutenant Colonel Charles M. Gandy, Medical Corps.

The academic course in this subject consists at present of thirteen recitations and six lectures, and instruction is given to the Second Class only. The course this year began May 5 and terminated June 5. Heretofore it has been customary to detail line officers, regularly attached to other academic departments, to temporary duty as instructors in military hygiene. This has entailed much additional labor on these officers and has been unsatisfactory in practice, since the work was unfamiliar and uncongenial, while matters of interest and importance were outside their knowledge, and information beyond the scope of the text-books could not be imparted by them. Authority was therefore obtained from the War Department for the detail of medical officers for this purpose. Captains Joseph F. Siler and William R. Davis, specially asked for because of their knowledge of the subject and familiarity with modern methods, were ordered to report to the Academy for temporary duty. These instructors displayed great interest in the work and obtained excellent results.

The lecture periods, as assigned, provided for but half the class at a time, which would have necessitated the repetition of each lecture. By courtesy of the acting professor of drawing, who yielded three hours of the time allotted to his department, it was made possible to deliver the lectures to the entire class. Brigadier General Alfred A. Woodhull, retired, on invitation, gave one of the lectures in the course, taking as his topic, "The Conduct of Marches." The other lectures were delivered by the head of the department, and the subjects treated were: personal hygiene, the chief preventable diseases of soldiers; the conservation of health in hot climates; the place of the medical department in the army; camp sanitation. These lectures were illustrated by means of lantern slides and models of sanitary appliances.

Since the course in this and preceding years occurred during the period of greatest medico-professional activity, request was made and permission accorded to set the time of instruction forward; recitations in 1912 will therefore begin February 23 and terminate March 27.

The subjects taught in the course have been as follows:

The recruit; personal hygiene; foods and their preparation; the hygiene of camps, of barracks and of troops on the march; the care of the health in hot and cold climates; the causes of disease; the prevention of epidemics; typhoid and other water-borne diseases; infections transmitted by insects; venereal diseases; the nature of alcoholic drinks and narcotics and their effects upon the human system.

In addition, lectures and demonstrations have been given at other times during the year, on venereal prophylaxis, anti-typhoid inoculation, the use of the first aid packet, treatment of medical and surgical emergencies, camp sanitation and the use of sanitary appliances.

Department of English and History.

Under the Act of Congress approved April 19, 1910, Lucius H. Holt was appointed professor of English and history. He entered upon his duties on July 2, 1910, and has conducted the work of his department with marked efficiency. He reports as follows:

The present professor of English and history took over the department from Acting Professor J. C. Adams on July 2, 1910. At the beginning of academic work in September, eight instructors were serving in the department, four in English and four in history. These instructors were for the most part detailed from the department of modern languages.

The work of the department was wholly with the Fourth Class. For the purposes of instruction the class was divided into sixteen sections reciting daily, eight in English and eight in history, those reciting in English one day having history next and vice versa. One hundred and thirty-two cadets were in the Fourth Class in September; arrangements of sections were made to put twelve cadets in each of the upper sections so as to allow the lower sections to be made up of not more than six or seven cadets. By this means those cadets who were most in need of assistance were able to get more individual attention from the instructors.

In English at the time the instruction of the cadets began in September, the Fourth Class was supposed to have been thoroughly drilled in the elements of rhetoric and to have gained some knowledge of the Elizabethan period of English literature during the term lasting from March to June; in history the class had studied the period from the beginning of the 16th century up through the battle of Waterloo. The work both in English and in history for the term from September through January, 1911, had already been planned by Professor Adams. No radical change from the established and accepted plan of work was made by the present professor. In two ways, however, an attempt was made to make the instruction more effective: first, by a requirement that each cadet take careful notes of new matter and new interpretations brought out in the class; second, by the preparation for the use of the instructors of detailed outlines for each recitation.

1st, The notes. Each cadet was required to bring his notebook to each recitation and to take notes during each recitation. His notebook was examined and marked twice or three times each term. Full explanations were given to the cadets of the way the notebooks should be kept and of the use which should be made of them. To facilitate the taking of accurate notes and also to permit the cadet at any point in a recitation to grasp the precise bearing of the question asked, the simple device was adopted of putting on the board at each recitation a concise diagram of the material to be covered during the hour. It has been the experience of the department that the cadets, especially those of the lower sections, have been able by taking notes and by following attentively the simple diagram mentioned to derive much more benefit from the course than formerly.

2d, The lesson outlines. These detailed outlines were intended for the use of the instructors in their preparation of the day's lesson for teaching. The chief advantage gained from them has been uniformity in class-room presentation. Before each recitation the head of the department in conference with the instructors went over the material in the lesson assigned with the outline, showing where emphasis might properly be placed, how the important points might most effectively be presented, and answering questions. Necessarily allowing for the individual factor in teaching, it has been the experience of the department that the proper use of these detailed outlines has made the teaching more uniform and enabled the instructors to be prepared better for the recitations.

The method of the recitation was not changed. The first part of the recitation hour in English has commonly been devoted to a fifteen minute written paper on a topic selected from the day's lesson, emphasis being laid on the necessity of correct expression. Occasionally longer themes have been required, but it is the belief of the head of the department that the best ends of the English course in this Academy are obtained by emphasis upon clear, correct, and concise expression of facts, information, or the like, rather than upon long sustained essays or attempts at essays in literature. In history, the recitations in the political science part of the course were not as successful as could be desired. This was due, it is believed, to the poor text-book used and will be remedied largely by the introduction of a better text-book for the purpose next year.

The regular course has been supplemented by lectures, several by the head of the department and four by outside lecturers. It is the belief of the depart-

ment that both in English and in history effective lectures can do much to clarify the work for the cadets. It is hoped that during the next year provision can be made for more than four outside lecturers.

Mention should be made of the work with the Fourth Class from March to June of this year. Owing to the change from a four year and three months' course to a four-year course, the Fourth Class, one-half the class daily, continued its work in English from March till June. The assigned lessons were from the plays of the most important contemporary English (and American) dramatists. In the work the attempt was made to familiarize the students with these selected plays, to draw pertinent comparisons with the drama of a former period, and to inspire a proper appreciation of what is typical of the best of modern dramatic literature in English. The methods used in teaching were not different from those outlined above.

At the beginning of February the instructors detailed from the department of modern languages for work in the department of English and history were relieved from work in the latter department. Then for the first time in its history, all of the instructors in the department were officers detailed for that duty alone. Under an act of Congress of March 3, 1911, an assistant professor was created in the department. With the coming of the next large Fourth Class and the consequent increase in instructors in the department, the necessity of an assistant professor in English as well as the one already provided, who is serving in the history branch, will become evident.

Certain changes in text-books have been recommended for the coming year. It is believed that in the English course the omission of Carlyle's "Heroes and Hero-Worship" and the substitution of new text-books for the study of Tennyson and Stevenson, and the introduction of a play by Sheridan, a play by Pinero, and a history of English literature, will strengthen the course both in value and interest. In history, the only change recommended has been the substitution of Professor Gettell's "Introduction of Political Science" in the place of Professor Dealey's "Development of the State." The orderly arrangement of material and frequent concrete illustrations in Professor Gettell's work should enable the cadet to gain a more intelligent knowledge of the subject than was possible from the book displaced.

Two officers of this department have spent part of their summer vacations in taking special courses in English and history for which they are entitled to commendation.

Board of Visitors.

It is a matter of regret by all belonging to the Academy and those intimately associated therewith that the time honored Board of Visitors which came to the Academy annually during the graduating exercises has been done away with under the law approved March 4, 1909, which provides:

That hereafter the board of visitors to the Military Academy shall consist of five members of the Committee on Military Affairs of the Senate and seven members of the Committee on Military Affairs of the House of Representatives, to be appointed by the respective chairmen thereof * * *

This year three members of the Military Committee of the Senate and three members of the Military Committee of the House visited the Academy for a period of about twenty-four hours, arriving on January 26, 1911.

The members of the Military Committees of the House and Senate should visit the Academy and be familiar with its conditions and wants, but in addition thereto it is believed that the best interests of the Academy will be subserved by adding Senators and Representatives other than members of the two military committees, and, in addition, at least five distinguished citizens of the country, and that such a board, or a proportion thereof should be present during the graduating exercises, beginning June 1 and ending with the graduation of the class.

Superintendent United States Military Academy.

General Sherman who kept in close touch with the Military Academy realized the necessity for a general officer being Superintendent, and while in command of the Army in 1876 reported as follows:

At the Polytechnic of Paris a general of artillery is the head; at Metz a general of brigade; at St. Cyr a brigadier general. In Prussia, where military education is nearly universal, the National War Academy, at Berlin, which corresponds with ours at West Point, is presided over by a lieutenant general, and generally throughout Europe the most renowned and exalted of their general officers are chosen to preside over the education of their youth; so that I deem it a matter worthy of special mention that General Schofield, with his consent, has been placed at the head of our National Academy, and under his administration I am sure it will rank among the first educational establishments of the world.

A special reason why a general officer should occupy this post is that he is common to all arms of service and not subject to the doubt which naturally attaches to a field officer of the general staff, of artillery, cavalry, or infantry, who is inclined, naturally, to favor his own corps or arm of service.

With the increased number of cadets and the enlargement of the Academy there is additional reason for a general officer to be Superintendent, that the officer in command may be superior in actual rank to all officers on duty here. Assigning a junior officer to this duty and giving him local rank does not ameliorate or improve conditions; it always has been and always will be humiliating to his superiors on the Academic Board some of whom are older in years and length of service and his senior in actual rank.

Increase in the Number of Cadets and the Filling of Vacancies.

On September 1, 1910, one hundred and twenty-two vacancies existed in the Corps of Cadets. When the War Department approved of the change to the four-years' course and directed the admission of the next class in June, 1911, the January examination of candidates which had been provided for with a view to the admission of the successful ones on March 1 was held. An additional examination was held in May with a view to filling the vacancies existing after the January examination.

The results of these two examinations were in a measure disappointing in that fifty-two vacancies still remained to be filled.

For the examination in January, 1911, 553 candidates were nominated to cover the 300 vacancies.

The following summary shows the result of this examination:

Appointments, including 1 Filipino	553
Failed to report	122
Failed to complete examination	11
Withdrawn	1
Declined	4
Rejected physically, qualified mentally	15
Failed mentally, qualified physically	165
Mentally and physically disqualified	42
Qualified alternates for whom no vacancies existed	23
Qualified and to be admitted, including Filipino	170
Total	553

After this examination there still existed 128 vacancies. For the examination held May 2, 1911, 242 candidates were appointed.

The following summary shows the result:

Appointments, including 1 Cuban	242
Failed to report	49
Failed to complete examination	2
Rejected physically, qualified mentally	9
Failed mentally, qualified physically	77
Mentally and physically disqualified	19
Qualified alternates for whom no vacancies existed	8
Qualified and to be admitted, including 1 Cuban	78
Total	242

leaving fifty-four vacancies. The War Department in its earnest endeavor to fill these vacancies ordered a third examination for July 5, 1911, the result of which is as follows:

Appointments.....	83
Failed to report.....	13
Failed to complete examination.....	2
Declined.....	2
Rejected physically, qualified mentally.....	2
Failed mentally, qualified physically.....	35
Mentally and physically disqualified.....	14
Qualified and to be admitted.....	15
Total.....	83

The qualified candidates of this examination were admitted on August 1, 1911. Therefore, after three examinations there still exist fifty-seven vacancies.* In the last examination the following districts were not represented, no candidates having been designated:

Arkansas, 2d, 3d, and 7th	Nebraska, 6th
Illinois, 2d, 12th, 15th, and 24th	New York, 19th and 35th
Iowa, 9th	North Carolina, 2d and 7th
Louisiana, 3d and 7th	Oklahoma, 5th
Mississippi, 3d and 4th	Pennsylvania, 17th

It is believed there are in all districts qualified young men who desire these appointments, and it is regretted that such young men are not nominated, or at least given a chance by competitive examination or otherwise.

The circular of information sent out from the Academy to Congressmen, candidates, and others interested, is complete as to the mental and physical requirements, and any reputable physician could at once determine by examination whether or not the candidate is qualified physically; but notwithstanding the care taken to impart this information many candidates are rejected

*The foregoing statements show that practically the same number of vacancies remained after the third examination of candidates as after the second examination. This condition is accounted for by the fact that between the May and July examinations 11 cadets resigned and 4 were discharged for deficiency in studies, thus leaving 69 vacancies to be filled prior to the third examination. Of the candidates appointed for the July examination but 15 were admitted, thus leaving 54 vacancies to be filled. Since the July examination 3 more new cadets have resigned, leaving at date 57 vacancies.

for physical defects. In one instance all three candidates nominated from a district were rejected physically and mentally, and there are many districts in which two of the three candidates were rejected physically.

With a view to filling all vacancies effort was made to secure the enactment of the following legislation, but unfortunately it failed:

Provided, That whenever any cadetship at the United States Military Academy is available for the appointment of a cadet from any State at large or from any congressional district or territory, the President shall appoint a cadet from the United States at large to fill such cadetship unless the proper Senator, Representative, or Delegate in Congress shall nominate an eligible candidate for appointment to such cadetship within six months after having been requested by the War Department to nominate such a candidate.

Provided further, That hereafter whenever all vacancies at the Military Academy shall not have been filled as a result of the regular annual entrance examination the Superintendent shall fill not to exceed thirty of the remaining unfilled vacancies by admissions from the whole list of alternates, selected in their order of merit established at such entrance examination, preferably from the same State in which the vacancy occurs. The admissions thus made shall be credited to the United States at large and shall not interfere with or affect in any manner whatsoever any appointment authorized by existing law; *and provided further*, That whenever by the operation of this or any other law the Corps of Cadets exceeds its authorized maximum strength as now provided by law the admission of alternates as herein prescribed shall cease until such time as the Corps of Cadets may be reduced below its present authorized strength.

The plant here is sufficient for the accommodation and instruction of a certain number of cadets and in the interest of the country, the Army, and economy, the maximum number should be under instruction at all times.

If legislation, such as that above cited, be not enacted and in the light that these appointments belong to the several States and congressional districts, it is suggested that examinations be held in each district at which any eligible youth may appear, the one passing the best examination to be appointed.

At the examination held in January, 1911, thirty-seven candidates for fourteen appointments at large were examined competitively. A comparison of the examinations of these thirty-seven candidates with those of the candidates from State and congressional districts emphasized the advisability of the course pursued by the President in selecting his appointees.

The requirements for candidates in English composition and English literature are clearly stated in the circular of information as follows:

Candidates will be required:

1. By the writing of short themes on subjects chosen by themselves within limits set by the examination paper, to prove (a) their ability to spell, capitalize, and punctuate, and (b) their mastery of the elementary principles of composition, including paragraphing and sentence-structure.

2. To give evidence of intelligent acquaintance with three plays of Shakespeare: one comedy, one history, and one tragedy,—The Merchant of Venice, Henry V., and Macbeth being especially recommended.

3. To exhibit a fair knowledge of the names of the most prominent English and American authors, and of the names of their principal works.

The following are taken from candidates' examination papers of July 5, 1911:

Robert Burns was an English he was born in England and his parents were very poor. All during Roberts early child hood he showed that he was very bright. He is considered one of the greatest English His poems sound different from that of the other poets. The sound much more smoother.

Robert Burns was an English writer of poems. Burns was born of poor parents, his father being a common day labor. Burns when young show a taste for good book. Often while eating a meal he would take his book to the table and read as he ate. Burns was large mans, but the hard labor which he did while young weaken him. When about seventeen Burns attended a dancing school which his parents objected to very much.

Burns early education was obtain thro his mother and a poor school. To which he could attend only a few months a year.

As Burns grew in man hood he feel in with companions. The results were he became a drunken.

Robert Burns came from the Pesent class of Scotland; His father took it upon himself to instruct his son as he should be. When Robert was a boy, his father would talk to him as if he were a man with intelligence and maturer knowledge instead of a mere boy. Nature greatly influenced him as is shown by his literary works later; many of his poems were about birds, and the animals he came in contact in his daily work on the farm.

Burns was of Scotch decent. His people were poor and ignorent. His oppertunities were not good but he was determine. The poetical blood seemed to have run through his veins. He knew the peasant life well and it influenced his works of later years. No poet has evern been able too surpass him in describing the peasant life.

The battle of Waterloo where Napoleon the most noted and powerful ruler also general that Europe has ever produced, is what some authoraties say as to his greatness, met his defeat his defeat was merely an oversight on his part.

The Battle of Waterloo was fought between the French and English. The French were led by Napoleon and the English by Lord Wellington.

Napoleon had captured most of Europe and had been carrying on a war against England. The English were the better on seas but French beat them on land.

One day in August a few of the boys thought they would go camping so they invited the rest of us to go along to do the work I should imagine, it seemed so later, but of course we had our troubles the same as other campers do. We forgot to take salt. The first few days things went lovely but later the fellow that couldn't whip the rest had to be cook the next weakest the dish washer and so on down until we had a sort of feudal system each one swearing allegiance to the One who last whipped him, this continued for the remainder of the time and finally got so bad that camp was broken and we went home.

As examples of failure to exhibit a fair knowledge of English literary history, the following answers to the question asked—"In a few paragraphs (altogether about 200 words) mention the chief characteristics and the most important writers of the 19th Century in English literature"—are submitted:

The important writers of the 19th Century were nearly all raised as poor boys from poor families. The one we should class first among them is Longfellow. After his death. The people of England thought so much about him, they ask for his bust for the Poets Corner in West Minster Abbey. It stands in a prominent place today.

There were a number of good writers such as Johnson, Johnson, Tennyson, and etc.

The majority of the best writers at this time were Englishmen. The Americans only being a few. That is comparing them with the Foreign writers.

There was a great difference between the writings of Englishmen and Americans. The American writings seem to have more humor and a more pleasant way in expressing themselves. Reading a book written by an Englishman does not have the easy smooth effect as the Americans.

The age as a whole may be classed as the Interdiction of the Novel because the majority of the work was prose and the majority of the prose were novels we have of course poets, such as Wordsworth, Shelley, Keats, Byron, But we also have, Dickens, George Eliot, Thackeray, Carlyle with his essays. The characteristics of the literature was love of nature in Burns and Wordsworth.

We have Wordsworth's definition of poetry, "a superfluous overflow of the powerful feeling" Burns says, if it had but a spark of nature's fire. In the novel we have character description and well developed plots, also Humor.

Some of the most important writers of the nineteenth century are Ellen Wheeler Wilcox, Elbert Hubbard, Jack London, Walt Whitman and Dorothy Dix. Among this number two of them are women and their pieces and writings are very interesting. Elbert Hubbard is somewhat of a philosopher. He is

also a splendid writer. He wrote the Doctor and a good many other books. Jack London is more of a novelist than a writer. His chief work is writing up prize fights and other things. Walt Whitman is called the poet philosopher and his works are very interesting. He writes for all of the newspapers.

As evidence of complete unfitness to take the examination in history for this Academy the following answers to questions asked in the recent examination are submitted:

Q. Who was Nebuchadnezzar and for what achievements was he noted?

A. Nebuchadnezzar was a prophet and was noted for his foretellings. He told the certain things would happen and they did happen.

A. He was ancient king and was a soldier. He compelled to eat grass and live in the forest for about nine years. He founded the city Nineveh.

A. Nebuchadnezzar was an Egyptian ruler, noted for founding a library. Gave Egypt a good start.

Q. Describe briefly Xerxes' attempted conquest of Greece, naming two of the battles and the results of each.

A. Xerxes' conquests were not successful, being driven back.

A. He started with about a million and 1-2 soldiers and followers. He entered Greece and fought the battle of Thermopylae, which was victorious but cost him a great many men.

A. With a large army he defeated the Greek at Thermopylae, sparing only one man. In the naval battle of Salamis he was defeated. His attempts were a failure.

Q. What was the "Macedonian Phalanx"? What was the "Roman Legion"? Name an important battle in which they were opposed. State the result of this battle.

A. Macedonian Phalanx was a division of the Army of Macedonia. Roman Legion was the Roman army.

A. In the battle of Crecey these opposing forces met and the result was in favor of the Romans.

A. The Roman Legion was a hundred foot soldiers. A Macedonian Phalanx was when the soldiers stood on the other soldiers' backs forming a great high wall with their shields.

Q. What was the Mason and Dixon's Line? How and when was it established? Why?

A. Mason and Dixon's line was a line made across the country from east to west. It apparently divides the country.

A. The Mason and Dixon line is a line running between Maryland and Georgia. It took its name from the name of the surveyors. It was established in 1763 and because there was a continual quarrel between the boundaries of the two states.

Q. Who were the leaders and what were the results of the Battles of Trenton and Princeton? What was the special importance of these two battles?

A. MontCalm and Wolf, Gained a stronger holt on the equipment of the opposing forces.

A. General Jackson and General Lee.

Q. Give the details of the establishment of the Republic of Panama.

A. The Republic of Panama was established by the United States against the wishes of England in about 1897. We almost had trouble on account of our "Monroe Doctrine."

A. The Mexican Government was unbearable thereby causing the southern part to rebel and form a republic.

A. Panama was under the control of Venezuela. She was mistreated and misgoverned and asked foreign nations for recognition as independent. The U. S. sent fleets over to Venezuela and forced her to recognize Panama's independence.

A. Spain was not to hold power in Panama, neither was the U. S. to annex her as a state.

A. Panama was purchased from Columbia.

A. That U. S. was to have Isthmus-Panama to control herself.

A. Panama was owned by the Spanish Gov. and it desired to be independent and free from the Spanish bonds. It rebelled and was recognized by the U. S. and other countries and so was freed and became an independent Gov.

The above are a few extracts from many equally as bad submitted by candidates in the examination of July 5, 1911, and emphasize the unfitness of the persons submitting such papers even to be proposed as candidates for entrance to this Academy.

These examination papers seem to establish—

- a. That proper care is not exercised in the selection of candidates, and
- b. That the methods of instruction now in vogue in our schools are not satisfactory.

Many of the young men whose answers are above quoted reported themselves as having attended high school and some as having attended colleges and universities.

The United States Military Academy is not a primary school. The courses of instruction given here presuppose a foundation in the rudimentary branches. Where such a foundation does not exist no encouragement should be given to try the examinations, for thereby—

- a. The time and work of the officers engaged in examining the candidates and their papers are utterly wasted;
- b. Other young men more fit to take the examination are given no opportunity, and
- c. In the many cases where candidates insufficiently prepared do actually obtain entrance to the Academy they become a serious drawback on the advance of the whole class toward more valuable work.

In respect of (b) it is incredible that if proper means are used to find suitable applicants, the honor of an appointment as candidate for entrance to the Military Academy should go begging. There are surely thousands of young men in this country well grounded in the essential branches required of candidates who would welcome the chance to enter the military service as a cadet.

In respect of (c) the academic departments, especially those dealing with the Fourth Class, find it necessary, in view of the many cadets admitted who ultimately show great deficiency in fundamental training, to spend in the aggregate a large number of hours in elementary drill. This is particularly the case in English composition where satisfactory progress can only be made after a thorough preparation and careful drill in the fundamentals.

In history also, familiarity with general and United States history is needed in order to progress satisfactorily with the course as given in European history since 1500 and in the elements of political science with special reference to conditions in this country.

Under these circumstances it seems reasonable to urge that the fitness of the appointees be thoroughly tested before they are allowed to take the entrance examinations. By this means the proportion of candidates who pass would be at once greatly increased; and the ultimate benefit to the personnel of the officers of the Army would repay many fold the trouble taken.

Students from Foreign Countries.

Experience with foreigners does not indicate that the best interests of the Academy are subserved by their admission under existing requirements. The first foreigner (excepting three who were admitted in the early days of the Academy—two in 1816 and one in 1823) to be admitted under a Resolution of Congress entered in 1884, since which date twenty-one have been admitted, the:

majority of whom have been carried along without reference to their proficiency. Of the total number only three would have heretofore graduated under the requirements for cadets from the United States. Four others were carried along for four years, but had they been Americans to be commissioned in our Army they would probably not have been graduated. The others either withdrew or were carried along for four years notwithstanding their deficiency. Five on the rolls of the Academy this year are not included in the above summary, only one of whom is competent to graduate; two are carried along though deficient in many subjects, one has been absent without leave since March, 1910, and one who entered this year left the Academy without proper authority and has been dropped.

For serious offenses foreign cadets cannot be tried by court-martial nor can proper disciplinary measures be administered. Our only recourse is to request their withdrawal which is accompanied by tedious delays.

The foreigners who come here are generally from countries which have no suitable military schools and from which we therefore cannot receive like courtesies.

If the admission of foreigners is to continue they should be required to pass the mental and physical examinations required for admission to this institution, as this is the only means for determining whether or not they have the qualifications necessary to continue with the classes. Furthermore, if deficient in studies or conduct at any time during the course they should be immediately withdrawn.

Adjutant's Office.

On January 1, 1911, Captain Robert C. Davis, 17th Infantry, aid, was appointed adjutant, by reason of which appointment and because of a decision of the Comptroller that he could not draw the additional pay as adjutant and as aid he was relieved from the latter duty. From August 31, 1910, the day he reported until the following January was used as a period of observation in respect of the work of the adjutant's and related offices. Soon after assuming charge he made certain changes all of which have conduced to the contentment of the office force, to the expedition of business and to the accuracy and correctness of records. He has been ably assisted in this by Mr. Boyle, chief clerk, who though working

under a salary entirely incommensurate with his position and its responsibilities has nevertheless rendered most efficient service as have all members of the clerical force. From a clerical standpoint Mr. Boyle's position is most important; he is chief clerk of the principal office at the Academy and his salary should be commensurate with his duties and responsibilities. Last year an increase in his salary was recommended but did not become effective. Solely in the interest of the service that recommendation is renewed. The clerical force of the office is generally of unusual length of service, tried experience and efficiency, and they have suffered in their salaries by reason of having been carried as clerks of Army Headquarters, Divisions, Departments, &c., and paid from said appropriation. They have served as follows:

One clerk at \$1500 has served about 55 years,
 One clerk at \$1400 has served 37 years,
 One clerk at \$1400 has served 35 years,
 One clerk at \$1200 has served 24 years,
 One clerk at \$1000 has served 23 years.

Band and Field Musicians.

A very decided improvement has been apparent in the Band and Field Musicians under Captain Davis' efficient administration.

Captain Davis reports as follows:

On January 1, 1911, pursuant to General Orders, No. 45, these Headquarters, 1910, I relieved Captain Oscar J. Charles, 17th Infantry, as adjutant of the Military Academy and in command of the post non-commissioned staff, band and field music.

Knowing that I was to be detailed as adjutant, and through the courtesy of my predecessor in permitting me to do so, I was able to start some of the changes in the organization and methods that I wished before taking charge of the office and the remainder on doing so. With the approval of the Superintendent I appointed Mr. I. A. Boyle chief clerk and made changes and reassignments in the organization of the office and the hours of labor, throwing full responsibility upon the heads of the several divisions and in turn requiring them to meet their responsibilities, to be accurate and to know their duties.

The office force proper consists of nine civilian clerks and five enlisted men.

The system of keeping records prescribed in General Orders, No. 92, War Department, 1909, was put into effect. While this system has entailed more clerks in this division than the one formerly in force, it has greatly increased the accuracy and value of the records and it is hoped that this will continue and improve.

The printing office proper was separated from the bindery and the immediate responsibility for the bindery placed upon the man in charge. This has relieved the chief printer of unnecessary work and is successful. A system of accounting for all stock received and expended was put into practice. It has caused very little work to keep this record and is a satisfactory check on the expenditures.

In the printing office was a monotype machine which none of our own force knew how to run. It was purchased May 14, 1910, and was being handled by one of the operators of the Lanston Monotype Machine Company at a salary of \$3.50 per day. Mr. H. L. Rembe, the assistant printer, through the courtesy of the Lanston Monotype Machine Company of Philadelphia, visited their school and took a course of instruction from October 6, 1910, until January 31, 1911, and upon the request of the Superintendent, the War Department authorized the sending of Private John F. Brennan, detachment of army service men, United States Military Academy, to the same school from February 11 to June 10, 1911, for a similar course of instruction, with the result that we now have two experienced operators for this machine. From November 21, 1910, until February 7, 1911, as our appropriation was expended and our men were not familiar with the machine, the Lanston Company had one of its own operators handle our machine and paid his wages.

The representative of the Lanston Monotype Machine Company, on his recent visit of inspection in July, 1911, was very complimentary about the work of our two men and the care taken of and the condition of the machine.

These two experienced operators assist in promptly getting out the work, and while our capacity for work is increased, it is not felt that the number of employees in the printing office can be reduced as it is being called upon to do more work for the adjutant's office and the academic departments.

The printing office has three civilian employees, one apprentice and four enlisted men.

In the bindery, with but one binder and two young women assistants, 2125 books and 9500 pamphlets have been bound and 908 maps mounted during the year. It is recommended that extra duty pay be authorized for one enlisted man for duty in the bindery, as much of the time of the binder is taken in doing work which an unskilled man could do.

The bindery has three civilian employees.

There is nothing unusual to report concerning the non-commissioned staff or band. In respect of the field musicians effort has been made to have them develop into a fife and drum corps, all capable of playing. A number of these musicians were on more or less permanent duties as orderlies and clerks, and not having an opportunity to practice were of no value as musicians. The sergeant of the field music was relieved from practicing with the band and placed in charge of the practice of the field musicians, who were all detailed in turn on the various duties, so that they could all have an opportunity to practice. It is hoped by another year that a great improvement will be made in their playing.

The following shows the strength of the commissioned, cadet, and enlisted personnel, gains, losses, etc., for the year ending June 30, 1911.

Strength of officers, civilian instructors, cadets, United States Military Academy, and enlisted men at West Point, N. Y., June 30, 1910:

Commissioned, Army	94
Civilian instructors.....	7
Cadets, U. S. M. A.....	432
Foreign cadets.....	5
Enlisted, Army.....	162
Enlisted, Military Academy.....	497
	<hr/>
Total.....	1197

Strength of officers, civilian instructors, cadets, United States Military Academy, and enlisted men at West Point, N. Y., August 1, 1911:

Commissioned, Army	99
Civilian instructors.....	7
Cadets, U. S. M. A.....	573
Foreign cadets.....	4
Enlisted, Army.....	160
Enlisted, Military Academy.....	475
	<hr/>
Total.....	1318

The members of the office force are mostly from this vicinity and have been connected with the Academy personally or through their families for a long time. They are therefore interested in its welfare and anxious and willing to assist in the work. In addition to the usual routine, three examinations of an unusually large number of candidates, the revision of the Academic and other regulations, and the establishment of new precedents made necessary by the change of administration, have entailed additional work upon all, which they have met cheerfully and willingly, regardless of hours. I commend them all. Mr. Boyle, the chief clerk, has justified his selection. He is painstaking, hard working and loyal. I recommend that his salary be increased from \$1200 to \$1800 per annum.

Captain Thomas W. Darrah, 27th Infantry, aide-de-camp, has been fully occupied with all sorts of duties, in addition to his academic work, and has manifested unusual efficiency.

The Quartermaster.

On June 30, 1911, Lieutenant Colonel John M. Carson, jr., who has been on duty as constructing quartermaster for the past eight years, was relieved by Major Bertram T. Clayton.

The following is an extract from the quartermaster's report:

Post Cemetery.

The cemetery has been in use since 1816. The number of interments made between July 1, 1910, and May 31, 1911, was 31, making a total number at the latter date of 1452. Its care and maintenance are provided for in the appropriations for the support of the Military Academy. For this purpose there was appropriated for the current fiscal year \$1500.

This amount is barely sufficient to properly maintain the grounds of the cemetery. The money has been used to the best advantage, but the gradual increase in the number of interments, the necessity for filling in and resodding old interments, and the annual increase in the extent of the ground occupied by them, necessitates constantly increasing amount of work in order to keep up the appearance of the grounds as they should be in a place of this character. An increase of \$500 in the amount appropriated for the care of the cemetery is made in the estimates for the next fiscal year, and should be granted if the cemetery is to be maintained in suitable and proper manner. One of the most crying needs is a new system of water-supply, for which a special estimate has been submitted. At present the water required for the maintenance of the grounds is brought to it through a three-quarter-inch pipe, which has been extended from time to time as needs required. The outlets for hose connections are not only improperly located but the pipe has gradually rusted until the supply of water is inadequate. A new system should be put in, ample in size for present and future requirements, and so planned as to avoid crossing space that will be needed for interments.

Detachment of Army Service Men.

The members of the detachment have performed the numerous demands required of it in a very satisfactory manner. An increase in numbers, however, is needed in order to meet the greater demands now being made upon this office for necessary care and maintenance of buildings and grounds. The enlargement of the Academy has annually added to these demands and the increase in the Corps of Cadets which went into effect this June will add still more to the work required of the men of this detachment. The Government has a plant at the Military Academy which requires a certain expenditure in labor and material each year for its maintenance. As the size of the plant is increased this expenditure necessarily does likewise. If the work required cannot be done by members of the army service detachment it will be necessary to employ civilian labor. This will make the cost of maintenance more expensive, particularly where labor of mechanics is required. It will be economy to increase the detachment to meet these growing demands.

Public Works.

The natatorium wing of the new gymnasium, work upon which was delayed until the main portion of the building had been occupied, is now fully completed, with swimming-tank and water-heater, circulating, supply and waste-piping in connection therewith, also shower-baths and other plumbing and heating apparatus and lighting fixtures in this wing.

The cost of the new gymnasium, complete with natatorium wing and lighting fixtures, and foundations built by day labor under the direction of this office, is as follows:

Foundations.....	\$63,000.00
Superstructure.....	374,661.71
Contractor's commission.....	19,083.26
	<hr/>
	\$456,744.97

The total cost of buildings for which payments had not been finally adjusted at time of my last annual report, including lighting fixtures, is as follows:

Cadet Chapel.

Excavation and foundations (by day labor)	\$21,000.00
Superstructure.....	392,631.83
Contractor's commission.....	18,457.56
	<hr/>
	\$432,089.39

Triple Set Officers' Quarters.

Cost of erection (net).....	\$80,392.76
Contractor's commission.....	4,745.46
	<hr/>
	\$85,138.22

North Wing of North Barracks.

Excavation (by day labor).....	\$2,550.40
Cost of erection.....	188,270.37
Contractor's commission.....	11,507.57
	<hr/>
	\$202,328.34

Battalion Guard House.

Excavation (by day labor).....	\$1,582.56
Cost of erection.....	27,170.16
Contractor's commission.....	1,481.63
	<hr/>
	\$30,234.35

The cost of the cadet chapel above given does not include the sum of \$13,015 expended for exterior doors, interior woodwork and furniture, mentioned in my last report.

The extension of the workshop at the ordnance laboratory, referred to in my last annual report, has been completed by day labor under the direction of this office at a cost of \$8,757.80.

The old cadet chapel, referred to in my last annual report, has been reconstructed in its original form by day labor under the direction of this office for use as a mortuary chapel in the cemetery, and is now entirely completed with the exception of the lift or elevator connecting the main floor with the crypt for which the material has been purchased. It is being constructed in the quarter-master shops and should be in place by July 1.

The work upon contract for erection of the new riding hall has been continued during the past year. The northern half of the building was sufficiently completed for use by December 1. Work on the walls of the southern section of the building on the site of the old riding hall is well advanced. The entire structure is approximately 78 per cent. completed and will probably be entirely finished and ready for occupancy in the autumn or early winter season.

Work upon the construction of the retaining wall for the support of the earth embankment, roadway and breast-high wall along the north and west sides of the new riding hall has been continued and is now practically complete, including earth and stone filling to form slopes behind the retaining wall and for formation of the road-bed for macadam surfacing.

New catch-basins have been built as necessary at the upper end of this road with pipe connections into the large surface drain previously laid, leading beneath the sloping bank upon west side of the building and under the site of the new riding hall to the river.

The ducts of the electric subway in this road, which were displaced by settlement, have been relaid and new branch ducts and conductors been installed to connect with electric street-lamps upon the new wall. A temporary cinder walk has been laid to the western entrance of the riding hall.

A service conductor for the supply of current for electric lights and power has been installed in the pipe tunnel leading to the new cadet chapel. Ducts have been laid and a similar feeder provided for the mortuary chapel.

The supply of stone from the quarry in the rear of the Superintendent's quarters, discovered while excavating for the new gymnasium, has been entirely exhausted and a new quarry has been opened in a convenient location westerly from the old quarry and southerly from the Catholic chapel. A large quantity of stone of good quality can be obtained very economically from this quarry for use in the walls of the riding hall, the proposed east academic building, and for other purposes.

The garbage crematory in the cadet mess hall, referred to in my last annual report, after modification in construction by the sureties upon the contract, has been found satisfactory and finally accepted.

Proposals were received upon the plans and specifications prepared in the office of the Quartermaster General and a contract entered into with the Morse-Boulger Destructor Co. for the construction of a garbage cremator consuming not less than ten tons per day of eight hours, of garbage, manure, night soil, and other general refuse of the post. This cremator was completed in accordance with the agreement at a cost of \$5,463.04, and fulfills all requirements in a very satisfactory manner.

The plans and specifications of the various buildings, which are included in the improvement now in progress, have been completed by the architects and approved, with the exception of the plans for the children's schoolhouse.

The following additional items of work, mentioned in the last report, have been completed.

Grading and laying granolithic sidewalks and gutters; building catch-basins, and laying drains in area of north cadet barracks.

Tar-macadam surfacing of main road, approaching from the south, triple set of quarters on old Kinsley house site.

Laying new gutters and tar-macadamizing road from north end of the north cadet barracks to the Catholic chapel.

In addition to the above, a granolithic sidewalk has been completed leading to the new gymnasium upon the north side of the new cadet barracks, also a cinder-concrete sidewalk extending along the southern end of the main parade, to replace the narrow stone flag and gravel walks across the southwest corner.

The present telephone system, which has been in use a great many years, has deteriorated to such an extent that a large expenditure would be required to put the aerial lines and apparatus in proper repair, and the improvement secured thereby would be but temporary only and the service would be much inferior to that given by complete modern apparatus now in general use by commercial telephone companies. It is therefore believed that ultimate economy will be secured by abandoning the present system entirely and substituting therefor an automatic-signalling, common-battery telephone system with underground cables, placed, as far as possible, in ducts provided in the electric subway system. The work of manufacture and installation of the new telephone system is now in progress under contract recently made with the Western Electric Company in the amount of \$8,874.45.

It was not until last summer that the detail plans for all of the improvements contemplated under the scheme as approved by the Secretary of War in January, 1904, were completed sufficiently to enable a fairly accurate estimate to be made of their total cost. It was found that to complete the plan including necessary roads, paths, grading, etc., \$2,900,000 more than had been authorized would be required. An effort was made to obtain Congressional authorization for this increase in the limit of cost, but without success. Representations were made that it would be impossible to complete the plan as laid out within the existing limit of cost, largely on account of the increase in the price of labor and materials since the previous estimates had been submitted to Congress.

As a matter of fact, since the increase in the limit of cost of \$1,700,000 authorized by Congress in June, 1906, the cost of building construction had approximately advanced 33 per cent. The erection of buildings here is attended with difficulties which must be overcome, but which of course cost money. The increase in the limit of cost requested, approximately amounts to the percentage of increase in the cost of labor and material.

Inasmuch as Congress refused to authorize further expenditures beyond the limit previously authorized, but one more building—the west academic building—can be constructed out of the available balance. In an effort to keep down the cost of this building to the lowest limit consistent with good construction and academic requirements, much time and study were spent in revising the original plans. With the authority of the Secretary of War, invitations were issued on May 17 to a number of high-class and experienced contracting firms to submit bids, which were opened on June 15. The proposals received were very satisfactory and the balance available in the appropriation for general improvements will be sufficient to erect the main portion of this necessary and important building. It is urgently recommended that an additional appropria-

tion of \$75,000 be secured at the next session of Congress to admit of the completion of the chemical laboratory and map-gallery wings, which have had to be omitted owing to lack of sufficient funds in the general appropriation for improvements.

Under instructions from the Superintendent invitations were recently issued asking for proposals for the lease of the present hotel for five years, from October 1 next. The proposals are to be opened on July 25. It is hoped that a suitable and satisfactory lessee will be obtained and the present unsatisfactory management terminated.

Gas Plant.

As director of the gas plant I am charged with providing illuminating gas for the needs of the post. The revenue derived from the sale of gas, coke, and tar is covered into the special contingent fund, and in accordance with law applied to payment of civilian employees at the gas works, purchase of gas coal, if the appropriation therefor is not sufficient, and for miscellaneous expenses not otherwise provided for. Gas is charged for at the rate of 75 cents per 1000 cubic feet.

During the eleven months ending May 31 coke has been sold at \$1.25 per 18 bushels. Tar was sold under contract at the rate of 3¼ cents per gallon, this being the highest price that could be obtained after public notice inviting proposals.

During the eleven months ending May 31, 15,123,500 cubic feet of gas were manufactured. For the corresponding period last year 16,746,600 cubic feet were manufactured. For the manufacture of this gas there were used 3,702,500 pounds of gas coal, at a total cost of \$6,066.15 (as shown by statement marked "No. 5").

Special Contingent Fund.

This fund is derived from the rent of the hotel, stable, restaurant and from the sale of gas, electricity, coke, tar, and miscellaneous receipts. Expenditures from this fund are made under the direction of the Superintendent, by authority of Chapter 212, Revised Statutes, Act of Congress approved May 1, 1889. Expenditures for repairs of buildings which are rented are paid from their rentals.

Necessary expenditures during the year for the forestry improvements now under way have been paid from this fund, which is reimbursed therefor from the sale of timber in the shape of cord-wood, sawed lumber, etc. Owing to its quality, there is very little sale for this wood, except to brickyards in the vicinity. The prices obtained were \$4.50 per cord delivered at the brickyard, and \$3.50 per cord delivered at the north dock. Last fall, however, an offer of \$4.00 per cord for selected hard wood on the north dock was received and accepted.

On March 6, 1911, the junior assistant to the quartermaster, Lieutenant Guy Kent, 1st Cavalry, having been a little over four years on duty at the Military Academy, was relieved and ordered to join his regiment. Though the interests of the service required this change, I regretted exceedingly to lose the loyal and valuable assistance of such an energetic, intelligent and capable officer.

On March 6, 1911, Captain J. S. Parker, U. S. Cavalry, quartermaster, reported for duty as assistant and was assigned in accordance with instructions from the Superintendent.

On May 19, 1911, Major B. T. Clayton, quartermaster, U. S. Army, reported for the purpose of relieving me of the duties of quartermaster and disbursing officer and officer in charge of construction, and is taking over the duties of the office.

* * * * *

List of contracts entered into by the Quartermaster's Department, U. S. Army, at West Point, N. Y., during the eleven months ended May 31, 1911.

Contractor	Date	Expires	Nature of Contract
North River Coal Co.	May 1, 1910	June 30, 1911	Anthracite coal
Clark & Wilkins	"	"	Soft pine wood
John W. Pavak	"	"	Hard wood
Texas Company	"	"	Mineral oil and gasoline
The Hoge & McDowell Co.	Sept. 1, 1910	"	Oats
Gasteigner & Schaefer	"	"	Hay
William Gleichmann	"	"	Bran and middlings
The American Hay Co.	"	"	Straw

Statement of funds pertaining to the Quartermaster's Department at West Point, N. Y., received, disbursed and deposited during the eleven months ended May 31, 1911:

	On hand July 1, 1910	Received since	Total to be accounted for	Disbursed and deposited	On hand May 31, 1911	Total disbursed, deposited, and on hand
Regular supplies		\$105,081.88	\$105,081.88	\$99,925.12	\$5,156.76	\$105,081.88
Incidental expenses		6,015.32	6,015.32	5,698.32	317.00	6,015.32
Barracks and quarters		3,104.00	3,104.00	2,053.41	1,068.59	3,104.00
Military post exchange		500.00	500.00	150.25	349.75	500.00
Army transportation		17,557.28	17,557.28	16,036.25	1,521.03	17,557.28
Water and sewers, Military Post		5,651.00	5,651.00	5,600.00	51.00	5,651.00
Clothing and equipage		1,814.47	1,814.47	1,814.47		1,814.47
Shooting gallery & ranges		1,253.47	1,253.47	1,079.43	174.04	1,253.47
Bringing home remains of officers, soldiers and civil employees		17.50	17.50	17.50		17.50
Miscellaneous receipts		945.50	945.50	945.50		945.50
Totals		\$141,940.42	\$141,940.42	133,302.25	\$8,638.17	\$141,940.42

Contracts in force during the period June 30, 1910, and May 31, 1911.

Name	Date	Purpose
Cram, Goodhue & Ferguson ...	Aug. 12, 1903	Developing competitive design for improvements, U. S. Military Academy.
Henry C. Meyer, Jr.	Oct. 2, 1903	For designing and supervising the construction and installing of heating and lighting plant.
Olmsted Brothers	May 26, 1904	Plans and designs, landscape improvements, U. S. Military Academy.
J. W. Bishop Co.	Jan. 31, 1906	Construction of Post Hdqrs. building
J. B. & J. M. Cornell Co.	Mar. 6, 1906	Structural steel for power house
Chas. T. Wills, Inc.	Aug. 25, 1908	Construction of gymnasium
" "	" "	Construction of chapel
" "	" "	Construction of battalion guardhouse
" "	Jan. 20, 1909	Construction of north wing to cadet barracks
" "	" "	Construction of triple officers' quarters
J. E. & A. L. Pennock	Apr. 13, 1909	Construction of riding hall

Contracts in force during the period June 30, 1910, and May 31, 1911, cont.

Name	Date	Purpose
Universal Destructor Co.	Apr. 26, 1909	Morse destructor furnace
Hildreth & Company	Aug. 24, 1909	Inspecting steel new riding hall
Black & Boyd Mfg. Co.	Apr. 14, 1910	Lighting fixtures in chapel, gymnasium, and north wing of north barracks
The Okonite Co. (Ltd.)	May 5, 1910	Conductor from old gymnasium to new chapel and service cable from new gymnasium to north wing cadet barracks
Narragansett Machine Co.	May 5, 1910	Wardrobe and benches in new gymnasium
Narragansett Machine Co.	May 9, 1910	Lockers and racks in new gymnasium
Lanston Monotype Machine Co.	May 14, 1910	Composing machine
Narragansett Machine Co.	May 13, 1910	Gymnastic apparatus
J. H. Gautier & Co.	May 18, 1910	Floor benches, gas house
The Long Island Charcoal Co.	May 28, 1910	Hardwood charcoal
Revolute Machine Co.	June 10, 1910	Electric blue-printing machine
Berwind-White Coal Mining Co.	June 14, 1910	Gas coal
North River Coal Co.	June 16, 1910	Anthracite coal
English & Flett, Inc.	July 19, 1910	Extending steam distributing system
Good Roads Improvement Co.	July 20, 1910	Treating roads with asphaltolene
Merritt & Company	July 29, 1910	Steel wall lockers
J. Livingston & Co.	Aug. 9, 1910	Electric lighting, west academic building
Atlas Roofing Co.	Aug 15, 1910	Repairing gutters, south cadet barracks
Irving & Casson.	Oct. 14, 1910	Furniture for Superintendent's office
"	Oct. 19, 1910	Rugs for Superintendent's office
Garrett & Graham.	Oct. 24, 1910	Wrecking quarters No. 19
Fox Bros. & Co.	Nov. 9, 1910	Flaming arc lamps
Wm. F. Ross & Co.	Nov. 16, 1910	Organ cases, new chapel
M. P. Moller.	Dec. 3, 1910	Pipe organ
John Wanamaker	Dec. 12, 1910	Cork floor covering, new chapel
Irving & Casson.	Dec. 14, 1910	Benches and chairs, new chapel
John Wanamaker	Dec. 27, 1910	Cushions, new chapel
Narragansett Machine Co.	Feb. 11, 1911	Gymnastic apparatus
Steele & Condit, Inc.	Apr. 7, 1911	Condenser and weak liquor cooler
Alex. D. Scott.	Apr. 21, 1911	Constructing house for caretaker of watershed
Western Electric Co.	May 12, 1911	Central energy telephone system

Amount of gas made and sent out with the amount of material used in its manufacture for the fiscal year 1910 to May 31, and fiscal year 1911 to May 31:

Month	Gas made	Cas sent out	Coal used	Oil used
1909				
July	932,600 ft.	928,000 ft.	207,500 lbs.	93 gals.
August	912,500 ft.	914,500 ft.	202,300 lbs.	93 gals.
September	1,111,500 ft.	1,120,300 ft.	252,400 lbs.	90 gals.
October	1,348,900 ft.	1,381,300 ft.	312,600 lbs.	93 gals.
November	1,575,400 ft.	1,533,600 ft.	363,300 lbs.	90 gals.
December	1,649,500 ft.	1,671,800 ft.	392,900 lbs.	93 gals.
1910				
January	1,894,900 ft.	1,886,400 ft.	481,900 lbs.	98 gals.
February	1,853,200 ft.	1,830,700 ft.	444,100 lbs.	89 gals.
March	1,898,000 ft.	1,912,300 ft.	446,700 lbs.	93 gals.
April	1,745,700 ft.	1,773,200 ft.	407,300 lbs.	.....
May	1,824,400 ft.	1,818,200 ft.	436,000 lbs.	.....
11 months	16,746,600 ft.	16,770,300 ft.	3,947,500 lbs.	832 gals.
F. Y. 1911	15,123,500 ft.	15,129,000 ft.	3,702,500 lbs.	.....
Decrease	1,623,100 ft.	1,641,300 ft.	245,000 lbs.	no oil used
F. Y. 1911				
July, 1910	1,074,700 ft.	1,080,500 ft.	280,800 lbs.	.....
August	1,108,600 ft.	1,105,000 ft.	296,700 lbs.	.....
September, "	1,249,700 ft.	1,241,200 ft.	312,600 lbs.	.....
October	1,352,700 ft.	1,362,100 ft.	333,600 lbs.	.....
November, "	1,438,300 ft.	1,434,000 ft.	351,900 lbs.	.....
December, "	1,562,700 ft.	1,560,300 ft.	376,800 lbs.	.....
January, 1911	1,596,400 ft.	1,598,200 ft.	379,700 lbs.	.....
February, "	1,524,200 ft.	1,517,100 ft.	362,400 lbs.	.....
March	1,566,600 ft.	1,576,400 ft.	370,700 lbs.	.....
April, "	1,402,600 ft.	1,410,600 ft.	340,200 lbs.	.....
May, "	1,247,000 ft.	1,243,600 ft.	297,100 lbs.	.....
11 months	15,123,500 ft.	15,129,000 ft.	3,702,500 lbs.	.....

Cost of coal used, \$6,066.15 (1911).

No oil used.

*Statement of receipts and expenditures pertaining to the Special Contingent Fund,
United States Military Academy, from July 1, 1910, to May 31, 1911:*

July 1, 1910.	Balance on hand.....		\$2,841.55
May 31, 1911.	By amounts received:		
	Rents:		
	Hotel.....	\$1,350.00	
	Post-office.....	187.50	
	Stable.....	300.00	
	Electric plant.....	350.00	
	Western Union telegraph office.....	30.00	
	Restaurant and store.....	615.00	
	Forestry.....	3,147.55	
	Miscellaneous.....	252.45	
			6,232.50
	Sales:		
	Light.....	11,421.45	
	Coke.....	598.75	
	Tar.....	96.31	
	Miscellaneous.....	34.31	12,150.82
			12,150.82
May 31, 1911.	Total to be accounted for.....		\$21,224.87
May 31, 1911.	Total expended.....	\$12,141.18	
May 31, 1911.	Deposited to Cr. Treasurer, U. S.	197.55	12,338.73
			12,338.73
May 31, 1911.	Balance.....		\$8,886.14

Statement of funds received and disbursed from appropriations for the United States Military Academy, West Point, N. Y., during period July 1, 1910, to May 31, 1911.

	Current and ordinary	Misc. items and incidental expenses	Buildings and grounds	Misc. receipts, sales at auction	Total
DR.					
May 31, 1911.					
Received, fiscal year:					
1909	\$427.69				\$427.69
1910	10,688.46	\$3,081.32	\$858.83		14,578.51
1910-1911	15,697.88		10,850.00		26,547.88
1911	121,323.52	51,880.55	45,402.00		218,606.07
1911-1912	500.00	3,250.00			3,750.00
Deficiencies Act. Pub. No. 480	5,500.00				5,500.00
Misc. receipts, sales at Auction				10.75	10.75
No Year, Enlarging M. A.			654,019.35		654,019.35
Total	\$154,137.55	\$58,161.87	\$711,130.08	\$10.75	\$923,440.25
CR.					
Deposited, fiscal year:					
1910	\$2,074.28	\$15.02	\$587.34		2,676.64
1911	12.50				12.50
Misc. receipts, sales at auction				10.75	10.75
Disbursed, fiscal year:					
1909	427.69				427.69
1910	8,614.18	3,016.30	271.39		11,901.87
1910-1911	14,883.56		846.24		15,729.80
1911	109,289.84	45,867.14	34,732.06		189,889.04
1911-1912	392.34	597.41			989.75
Deficiencies Act. Pub. No. 480	4,930.35				4,930.35
No Year, Enlarging M. A.			557,360.55		557,360.55
Bal. on hand, fiscal year:					
1910-1911	814.32		10,003.76		10,818.08
1911	12,021.18	6,013.41	10,669.94		28,704.23
1911-1912	107.66	2,652.59			2,760.25
Deficiencies Act. Pub. No. 480	569.65				569.65
No Year, Enlarging M. A.			96,658.80		96,658.80
Total	\$154,137.55	\$58,161.87	\$711,130.08	\$10.75	\$923,440.25

The following is an extract from the report of Major Clayton, quartermaster, for the period June 1 to 30, 1911 :

Quartermaster's Department, Post of West Point, N. Y.

During the month contracts have been entered into for alterations, additions and installing plumbing in quarters for enlisted men at a cost of \$21,974.29.

Transportation.

Freight and material hauled during the month of June, 1911, 2810 tons.

Post Cemetery.

Four interments were made during the month. The re-erection of the old cadet chapel, now known as the mortuary chapel, has been completed but there is a large amount of grading around it needed before this part of the cemetery is at all presentable. The entrance to the chapel should now be constructed and the gate moved as contemplated in the approved plans.

Some additional grading is needed on the northwest side of the cemetery. An item to cover this work will be submitted for the 1913 estimates.

Disbursements.

The amount of funds on hand June 1, 1911, was	\$10,745.06	
Expended	10,300.39	
		\$444.67
Balance on hand		\$444.67

Quartermaster's Department, United States Military Academy.

Public Works.

The work on the new riding hall during the month advanced about 4 per cent. and about 83 per cent. of the entire structure is completed.

Proposals were opened June 15 for east academic building. Eleven proposals were received for this work. The proposal of James Stewart & Co., 30 Church Street, New York City, N. Y., was the lowest, and was considered the most favorable. The War Department has authorized the award of contract in the amount of \$373,300 to this firm at a total cost, including contractor's commission of $6\frac{1}{4}$ per cent. of \$396,631.25, omitting chemical laboratory and the map-room, substituting concrete piles for foundations of stone masonry extending to bed-rock, and the omission of conduits and fittings above blackboards.

The iron gates and stone posts formerly in use at the south guard-house, have been reset at the southern line of the reservation upon the road and sidewalk leading to Highland Falls. The cannon now at sides of this road near the boundary line will soon be reset upon the line, and stone monuments set in concrete will also be provided at frequent intervals to mark the line of the reservation in this vicinity.

The receipts and disbursements, United States Military Academy, during the month are as follows:

1911.	DR.		
June 1.	Balance on hand	\$139,511.31	
	Received since	350.30	\$139,861.61
	CR.		
June 30.	By amount deposited	\$404.68	
	Disbursed	45,756.68	46,161.36
	On hand		\$93,700.25

Gas Plant and Special Contingent Fund.

All data relating to the above caption, with the exception of receipts and disbursements for June, 1911, was furnished in report of Lieutenant Colonel John M. Carson, jr., under date of the 19th ultimo.

Receipts and disbursements during the month of June, 1911, were as follows:

June 1, 1911.	On hand.....	\$8,886.14
	Received.....	808.26
		<hr/>
	To be accounted for.....	\$9,694.40
	Expended.....	3,085.16
		<hr/>
	Balance on hand.....	\$6,609.24

The Treasurer.

The office of the treasurer, quartermaster and commissary for the Battalion of Cadets has been satisfactorily and economically administered during the year. This office controls the cadet mess, laundry, and store from which latter is issued all supplies to cadets. Improved business methods at the laundry have made possible a further reduction in the laundry charges of the cadets, amounting to \$100 per month, effective July 1, 1911.

The cost of board at the cadet mess has averaged 66 $\frac{2}{3}$ cents per cadet per day, a slight decrease over last year.

Health and Sanitation.

The health of the cadets, officers, and enlisted men has been excellent and there has been a considerable diminution in percentages of sickness as compared with last year and with the decade 1901-1910.

The general sanitary conditions have been materially improved in all respects.

Credit for this very satisfactory condition of health and sanitation is due to the surgeon and his able assistants who have been very watchful of these matters.

The dental surgeons have satisfactorily performed their duties during the fiscal year ending June 30, 1911.

On June 30 Dental Surgeon William H. Chambers was relieved by Dental Surgeon S. Davis Boak.

The following is an extract from the report of the surgeon:

The general health of the Corps has been excellent. Considerable diminution in percentages of sickness, as compared with last year and with the decade 1901-1910 has occurred, as indicated in Table "A" shown hereafter. This diminution has resulted partly from improved sanitation, but more especially as the result of a determination to admit to the sick report only those whose physical con-

dition required it. Cadets presenting themselves with request to be excused from irksome duties have therefore been carefully interrogated and scrutinized, with results as shown in Table A.

It is believed that the diminution in those constantly sick and in days lost is due to the fact that cadets having trivial ailments have been required to perform duty while undergoing treatment.

Table A.
Sickness of Cadets (comparative figures).

	Decade 1901- 1910	Fiscal Year 1910	Fiscal Year 1911	Reduction 1911 over 1910
Average daily number of cadets in hospital	14.38	14.93	11.57	3.36
Average yearly admissions to hospital	1262.70	1206.	878.	328.
Admissions to sick report, hospital and quarters . . . . .	.....	5218.	2005.	3213.
Days lost in hospital (average per year)	5248.	5449.	4222.	1227.
Days lost on sick report, hospital and quarters . . . . .	.....	8478.	5203.	3273.
Average number of cadets in corps	439.7	414.	435.7	.....

The types of disease prevailing in the Corps have been, first: those due to indigestion. These result from the following causes: (a) hasty eating, with inadequate mastication; (b) hard physical or mental effort immediately following meals, with insufficient time for a digestive period; (c) neglect to regularly evacuate the intestine; (d) indiscriminate eating of viands obtained elsewhere than the authorized sources. Secondly: acute irritations of the respiratory tract, in the form of common colds, tonsilitis, bronchitis and the like. Next in order are wounds and injuries, of which the greater number are sustained in voluntary athletic sports, rather than in military exercises. Two periods of epidemic influenza occurred, in December, 1910, and in January, 1911, respectively.

Malaria gave comparatively little trouble, as there were but nine individuals affected with this disease during the year, giving a total of fifteen admissions to the sick report. Contrasted with the previous year (fifty-five cases) and the average for the preceding decade (fifty-two cases) the decrease seems to indicate the relative efficiency of our mosquito measures.

* * * * *

The problem of the shoe has not yet been entirely solved. The present shoe is well shaped and well made but in practice is found to possess a serious defect, in the presence of a rigid metal shank, introduced between layers of the sole and supporting the arch of the foot. In the annual physical examination of the Corps of Cadets, made recently, forty-six cases of flat feet of varying degree were found. This means that one in every nine of the cadets has this defect; and since in twenty-one of these cases the notation is not made on their entrance papers, it is assumed that the condition has developed here. Any shoe will limit the normal action of the foot and will cause atrophy of certain muscles, and it is evident that a rigid support for the arch may in time, by taking the place of normal muscular action, so weaken the disused mechanism as to create

the conditions responsible for flat foot. It is therefore recommended that the steel plate be omitted from future issues of the cadet shoe.

As indicating the prevalence of appendicitis among young men in this country it is of interest to record that there are thirty-one members of the Corps of Cadets who have been operated upon for this condition.

Efforts were made to induce cadets to volunteer for anti-typhoid inoculation, 102 responded and each received three doses at intervals of fourteen days.

Hospital Buildings.

Improvements have been made and others are contemplated in both of these. The cadet hospital, as modest appropriations become available, is gradually being brought up to the standard of the better-class institutions of a like sort elsewhere. The soldiers' hospital, built in 1892, is old and in poor condition and should be replaced by a modern structure. However, since this desirable change is not likely soon to occur, funds have been asked for its repair and for an addition which will make it possible to shelter its enlisted personnel, part of which is now in tents.

Sanitation.

General sanitary conditions have been materially improved. Many earth closets have been discontinued and the remainder efficiently policed; horses and cows have been removed from the vicinity of dwellings, while chickens have been relegated to the background. Many unsanitary and unsightly sheds have been removed; much mosquito-harboring underbrush has been cut and standing water drained or oiled; general police has been more efficiently performed; steps have been taken to replace all earth closets by an extension of the sewerage system; the disposal of wastes is more complete and satisfactory, by reason of the installation of a Morse-Boulger destructor; the milk supply has been more carefully guarded and a more efficient Pasteurizer obtained.

Dental work performed by dental surgeons during the year.

	Officers	Cadets	Enlisted men	Total
Operations.....	211	715	358	1284
Fillings.....	123	390	189	702
Inlays.....	38	140	.....	178
Bridges.....	5	6	.....	11
Crowns.....	19	39	7	65
Othodontia.....	.....	24	.....	24
Artificial dentures.....	.....	.....	1	1
Total.....	396	1314	555	2265

Library.

The library has been ably administered by Dr. Edward S. Holden who has unusual qualifications for this work.

The following is an extract from the librarian's report:

Library Committee.—The library committee consists of the professors of chemistry, engineering, and modern languages. All important matters are

decided by them on the recommendation of the librarian. Purchases are made through the quartermaster of the United States Military Academy, whose office conducts all the business affairs of the library and saves much thankless labor to the library staff, which is correspondingly grateful.

Library Policy.—The experience of the past ten years appears to lead to the conclusion that the library of the United States Military Academy must be considered as composed of several partial collections very different in their nature and objects. The chief of these are:

- I. What may be called a university or college library.
- II. A special military library.
- III. A library of congressional documents.
- IV. A small and select library of the general principles of law, etc., including all the publications of the United States on law. (The law department of the United States Military Academy already has a special law library, catalogued—of about 2,415 volumes—state reports, etc.)

1. The college library should contain (1) all books likely to be of service to the instructors and cadets in the pursuit of the studies of our special curriculum. Together with the excellent libraries of the various departments, which are housed in the academic building, it must furnish every facility for research in our special courses of study. The very latest information should be available (usually through periodicals) and the whole history of each science should be presented by the standard books of past times; (2) a considerable assortment of the latest standard books on topics not included in our curriculum. These books will supplement the teaching of the departments and open new insights to cadets; (3) a very complete collection of books of reference on all subjects that are likely to be inquired about here. It may be said, I think, that our collections of this sort are now fairly complete, though very important additions still remain to be made. The important books of each successive year must of course be added annually, and lacunae must be filled as fast as practicable. The excellence of a collection of this sort depends far more on quality than on quantity. Other things being equal, a well-selected collection of 10,000 volumes will be more useful to cadets than an ill-assorted collection of 50,000. When a book has become really obsolete it should be removed from the shelves of our college library unless it represents an important epoch in the historical development of its topic. A great public library, like that of Congress, must accumulate all books on a subject, because any book may be asked for by its readers. The case is different with us, where a selection of the best books is sufficient. Moreover, the books of the library of the United States Military Academy are useful just in proportion as they can be seen and handled by cadets on the open shelves, and there is a practical limit to the number of books that can be so displayed. Of course no volume should ever be classed as obsolete and removed from the library until it has been condemned by several independent judges, each of whom represents a different view. A single vote in its favor should keep it on our shelves. There are, however, a number of volumes which will, I think, be found to be of no value to us—as, for example, books on yellow fever or malaria that were written before 1898. A complete plan for the treatment of

duplicates was approved by the library committee, and by the Superintendent, on April 19, 1906. It is worthy to remark that of the books so eliminated only one volume has ever been asked for after its removal from the shelves—namely, "A list of the names of the merchant vessels of the U. S." This method shows that the method followed was satisfactory and has been carefully followed.

2. The special military library ought to contain (1) substantially every military book printed in America; (2) every important military book printed elsewhere; (3) all military manuscripts that can be accumulated which bear on the history of the American Army, especially during periods of war; (4) a sufficient collection of military and other maps.

It should be possible for an officer to write the history of cavalry, artillery, fortifications, and the like, from books on our shelves and this for any country and for any epoch. The library already contains excellent and extensive collections of the sort, but very much remains to be done to bring it to the desired state. The literature relating to the Civil War, for example, is inadequate.

Selection of books for purchase.—The librarian gratefully acknowledges the aid of professors and officers of the Academy in selecting books for purchase. The general library is now fairly representative of all subjects. The military library will demand great attention for a number of years to come.

Users of the library.—The library is available to 96 officers stationed at West Point, 605 cadets, and to all enlisted men of the post whose applications are approved by their detachment commanders, and to 180 civilians to whom its privileges have been extended by order of the Superintendent.

Accessions.—Four thousand, one hundred and seventy-seven books, pamphlets, etc., have been recorded as received since May 18, 1910. Maps, bound volumes of periodicals, and the separate numbers of the publications of the various departments of the United States are not separately accessioned.

Important accessions.—During the past year the following important books have been added to the library's collections:

Bee (General H. P.), C. S. A., 1863-64: Official orderly book of . . . Ms. 1 v., F. pp. 445.

Reynolds (T. C.): Confederate Governor of Missouri: General Orders, 1861-65. 1 vol. Ms.

Reynolds (T. C.): Confederate Governor of Missouri: Ms. recollections of the Confederacy. 1 v., F. pp. 6.

Jackman (S. D.): History of the war in Missouri. Unpublished Ms. 1 v., F. pp. 44.

During the past ten years no opportunity has been missed to obtain copies of the battle maps published by W. Faden during the American Revolution. There are at present twenty-three such maps in the library.

Special gifts.—The library has received many gifts during the year. A list of the more important is given below, and others are mentioned at the end of this report. The grateful thanks of the library are returned for these gifts, which come from many friends of the Academy.

Mrs. Louisa P. Minis, daughter of General Jeremy Francis Gilmer, Chief Engineer, C. S. A., has been so good as to present to the library forty original

maps made in the Engineer Bureau, C. S. A. They are generally on tracing linen. Other maps of this series are deposited in the Confederate Museum at Richmond, and in the rooms of the Virginia Historical Society. These maps were saved at Greensboro, N. C., by a brother of General Gilmer and kept at his plantation for many years and are now given by Mrs. Minis. The gifts form a splendid collection of original data. The maps represent exactly the information at the disposal of the Confederate commanders. A few of the maps are reproduced in the atlas accompanying the Rebellion Records—most of them are unpublished. Blue-print copies of these maps have been or will be made. The grateful thanks of the library are returned to Mrs. Minis for her generous gift.

Mr. William J. Bryson of Chicago, Ill., presented to the library in April, 1911, through Cadet George McC. Chase, U. S. M. A., a very valuable and interesting letter of General Washington. The letter is especially interesting on account of the detailed instructions given by General Washington for the conduct of the command of Brigadier General Smallwood, rules for maintaining discipline, etc.

Mrs. Joseph N. Robertson has been good enough to give to the library fourteen views of Civil War scenes and sixty-nine carte-de-visite photographs of officers of the Civil War. For these important additions to the library's collections of Civil War pictures our grateful thanks are returned.

Professor E. E. Wood gave to the library in August, 1910, a considerable number of Mss. relating to Mexico and the Mexican War.

The widow of General E. Porter Alexander has been kind enough to lend to the library his original diary kept during the Utah expedition. The diary is now in the process of copying under the direction of Captain Gilbert A. Youngberg, Corps of Engineers, U. S. A. The sketches in the diary have been photographed, and when this work is completed this unique Ms. of General Alexander will be represented in this library by an accurate copy. The sincere thanks of the library are offered to Mrs. Alexander.

Miss Heintzelman has presented to the library five volumes of the diaries kept by her brother during 1826-1832.

Lieutenant Stuart Heintzelman, U. S. A., has presented to the library sixty-five photographs of military railroads during the Civil War, and a map formerly owned by his grandfather, Major General Heintzelman.

Major General W. H. Carter, U. S. A., presented to the library in November, 1910, a grammar of the Ilocano language, written in two volumes by Fray. Francisco Lopez. This is the original Ms. (or a copy of it) written between 1598 and 1616, from which was printed "Gramatica Ilocana compuesta por el P. Predicador Fr. Francisco Lopez. . . Malabon, 1895."

Lieutenant Colonel C. DeW. Willcox, U. S. A., presented to the library a Ms. history of Cagayan Valley, P. I., of 610 pages. It is full of detail and in its present form is too elaborate for publication. Lieutenant Martin C. Wise, U. S. A., has been kind enough to read the first 180 pages and the last 25 pages of this Ms. and his opinion, in which I concur, is that the Ms. is of some importance for the history of the Philippine Islands and that, if practicable, a synopsis of it should be made for publication.

By the kindness of the Chief of the Military Information Division, General Staff, the library regularly receives a type-written copy of each important translation made for the Military Information Division from foreign books or journals. These translations are at once available to the officers and cadets of the Academy, who are thus provided with the very latest and most important military intelligence in print in an English form. A list of subjects carded in the Military Information Division is received (weekly) at this library, and has been of much value to officers stationed here, and since February, 1911, we have received regularly a list of maps filed in the Map Section of the M. I. D.

Acknowledgments.—Lieutenant V. W. Cooper, U. S. A., has been kind enough to give considerable time to the examination of photographs of the Boer War, the Russo-Japanese War, etc., with especial reference to the questions of field intrenchments.

Lieutenant Colonel C. L'H. Ruggles, U. S. A., Lieutenant G. R. Allin, U. S. A., and Lieutenant W. H. Dodds, U. S. A., have examined every book on artillery and ordnance in the library for the purpose of selecting (a) a series of pictures that will illustrate the whole history of artillery, and (b) a series of pictures which will illustrate the whole history of the artillery of the United States.

Lieutenant P. D. Glassford, U. S. A., Lieutenant E. E. Pritchett, U. S. A., and Lieutenant F. W. Manley, U. S. A., have examined all the books on cartography and fortifications in the library for the purpose of selecting pictures which will illustrate the history of topography from the earliest dates.

Mr. José M. Asensio has been kind enough to translate some Spanish Mss. for the library and to make from time to time brief reports on Spanish literature.

A complete examination of the history of cartography has been made by the librarian, assisted by Mr. D. Ashley Hooker.

Lieutenant E. M. Zell, U. S. A., has been good enough to read through four quarto volumes of Oviedo's "Historia de las Indias," with respect to the history of the Isthmus of Panama during the XVI. Century, and especially with reference to the transportation of Spanish ships and their equipment from the Atlantic to the Pacific Oceans.

Colonel Rogers Birnie, Ordnance Department, U. S. A., has been kind enough to have selected from the large collection of negatives at the Sandy Hook Proving Ground such pictures as are likely to be of use in showing the development of artillery in recent years.

Colonels Tillman, Fiebeger, and Gordon have been good enough to write the names of graduates of earlier years under their portraits in cadet albums. This important work of identification is not yet complete.

Portraits and busts.—The collection of portraits of professors, U. S. M. A., has been enriched by the addition of a fine portrait of Professor Tillman, painted by Charles Rosen in May, 1911.

Bust of Marlborough.—Major Sidney A. Cloman, U. S. A., military attaché of the American Embassy, London, has been kind enough to obtain permission from the Duke of Marlborough to have a plaster copy made of the bust of the great Duke of Marlborough in the long gallery at Blenheim palace. It arrived at the library, U. S. M. A., on March 11. It is not known by whom the original bust was made, but it is clearly of French origin.

The library has also acquired a plaster bust of General U. S. Grant. This makes the library's collection of busts of the great commanders of ancient and modern times very complete.

Military manuscripts.—As fast as practicable the unique military manuscripts of the library have been copied in type-writing and revised by Lieutenant P. D. Glassford, U. S. A., to whom especial thanks are due. The originals will be kept in the fireproof tower, the copies in the librarian's office.

Instruction through the eye.—Previous reports of the librarian, U. S. M. A., have contained a paragraph under this heading. An item in the Military Academy Appropriation Bill provides a sum of money for carrying out this idea, as follows: "For plaster and other models, relief plans, and maps to illustrate the facts of geology, photography, geography, hydrography, the processes and results of the useful arts, of the art of war, fortifications, artillery, and the like, to be displayed on the walls of the buildings of the Academy." Special Orders, No. 52, Headquarters United States Military Academy, March 10, 1911, appointed a board to consider and make report on the proposed display of models, maps, etc. The board consists of Lieutenant Colonel L. H. Holt, Lieutenant Colonel C. DeW. Willcox, Major Wirt Robinson and Dr. Edward S. Holden. Plaster relief models of—

Alaska, by E. E. Court,
Panama Canal Zone, by Howell,
Lake Superior Region, by the Lorenz Model Co.,
Wisconsin, by the Lorenz Model Co.,
Illinois, by the Lorenz Model Co.,
Glacier National Park, by the Lorenz Model Co.,
Southern New England, by Howell,
United States, by Howell,
Italy, by O. S. Paravia & Co.,

have been ordered and will soon be delivered. It is hoped to add to these reliefs models of the West Point reservation and of Constitution Island.

A collection of maps to illustrate the history of cartography A. D. 1400-1600 and especially to illustrate the discovery of America, has been brought together for display.

Catalogues of Maps and Portraits.

Military maps.—By the courtesy of the Chief of the Military Information Division, General Staff, it has been made possible for the Library, U. S. M. A., to copy the catalogue cards for maps owned at the Military Information Division. About 6100 cards have been so copied. These cards are now on file in the library (in a case at the head of the east stairway, 2d floor) available for the use of officers. The cards in this case represent maps owned by the Military Information Division and not owned by the U. S. M. A. All maps owned by the U. S. Military Academy have cards representing them in the catalogue cases in the main room of the library—some 2600 in number.

Portraits of military men.—The work of cataloguing the portraits of military men owned by the library is nearly completed and the author catalogue in the main room contains after the name of the person a list of his portraits owned by the U. S. Military Academy. About 3000 new cards have been added in 1911

to the former collection. The A. L. A. list of portraits (1 volume, octavo) is kept on top of the catalogue cases in the main room. It contains a list of many portraits not owned by the U. S. M. A. A series of photographic albums of the various graduating classes begins with 1857 and is complete to date excepting for the years 1858 and 1860. For these years no albums are owned.

Provision for the future storage of books.—The plans for the new academic building have provisions for supporting on the walls of certain of the hallways bookcases, the lower shelf of which is seven feet or more above the floor. Such bookcases are to be attached to iron strips imbedded in the wall, and will be used, when necessary, for the storage of magazines. In this way an indefinite number of magazines can be taken care of. They will always be convenient of access and will be ornamental, rather than otherwise, in the hallways of the academic building as each magazine is ordinarily bound in a uniform binding.

Forestry.

The forestry work of the reservation has progressed very satisfactorily. The woodsforeman, Mr. Arthur Knowles, is indefatigable and unusually efficient and enthusiastic about his work and is entitled to all credit for the care of the reservation and especially the progress of the forestry work.

Under Special Orders, No. 78, Headquarters United States Military Academy, 1905, the forestry work of the reservation is supervised by Professor Roy L. Marston, who makes not exceeding three visits annually to the Academy. Forester Marston's report follows:

During the past winter the woodsforeman, with a somewhat smaller crew than usual, cut about 600 cords of wood of fair quality, and about 30,000 feet of logs for the sawmill. As the trees cut are in all cases defective or inferior specimens, removed for the improvement of the remaining forest, this wood is of course not what would pass for first-class cord-wood. The sawlogs are from trees where the stand was too thick, and therefore are often, even generally, sound. The disposal of the cord-wood has been in the hands of the quartermaster as usual but the woodsforeman has been responsible for the miscellaneous products and lumber from the mill. Of the latter about \$1500 worth has been delivered to the several detachments and departments of the post, and about \$120 worth has been sold to outside parties.

The extensive planting operations have been continued this season. Ten thousand white pine, three and four years old, have been set out in the more open forest where the improvement thinning was heaviest. The experiment of planting this species under even quite heavy shade has proved successful. The growth is, of course, slower, but the hardiness and thriftiness of the seedlings is demonstrated beyond doubt. Ten thousand Norway spruce have been transplanted from the rows into permanent sites. These were three years old and were set out in the heavier stands where the thinning had been somewhat

lighter. Thirty thousand Austrian pine, mostly four years old, were set out with a view to improving the landscape effects quite as much as for the rehabilitation of the forest. About sixty thousand two-year old white pine seedlings were transplanted from the seed-beds into the nursery, where they will remain for two years, when they will be ready for setting out in permanent sites. There are between seventy-five thousand and one hundred thousand one-year white pine seedlings and about eight thousand hemlock seedlings in the seed-beds, which will be transplanted next spring.

A careful inspection of the work of the past seven years shows that the forest is returning slowly but surely to a more satisfactory condition.

The trees left in the improvement thinnings are not only growing very much faster, but are straightening up and becoming standards of excellent value. The natural reproduction on such sites as the areas east of the old pipe line, where the earliest cuttings were made, is conspicuously fine and more than half from seedlings.

There has not been a single failure in the planting operations, and it has been established once and for all that conifer seedlings, if allowed to develop good root systems in the nursery, can be successfully transplanted under hardwood growth after improvement thinnings. The largest part of the success of the forestry undertakings has been due to the faithful and enthusiastic work of the woodsforeman, Mr. Knowles.

Hotel.

One of the crying needs of the Academy is a well-managed and properly-located hotel. The present hotel is a barn-like structure, very old and entirely inadequate, and against the management of which there has been more or less complaint for years.

Its inadequacy and unsuitableness are emphasized by the fact that it contains seventy-one guest-rooms and but two bath-rooms, one for women and the other for men. It has no heating plant.

The site of the present hotel is one of the most commanding and best on the post.

Under the original plans it has been proposed to put a group of buildings on the site of the old hotel.

This group of buildings has been a burning question from the beginning and was the subject of a sharp correspondence between the Superintendent and the Advisory Board in 1904 and has been in controversy more or less ever since. The original scheme seemed to contemplate a group of buildings on the site of the old hotel containing quarters for the Superintendent, commandant of cadets, adjutant, surgeon and quartermaster. The group as planned does not contain quarters for the entire military staff.

Soon after becoming Superintendent the plans for this group were submitted to me for approval. On examination I found that they had been made for the approval of the former Superintendent and had been under consideration for about three years.

The plans, as submitted, contain quarters for the officers above mentioned, and, in addition, an executive suite; that is, quarters for the President, Secretary of War, or other distinguished guests. The estimated cost of this group is \$350,000.

I do not approve these plans for the following reasons:

A set of quarters for distinguished visitors is not necessary, the furnishing and providing servants for which will materially add to their cost and maintenance.

The President rarely visits the Academy—probably an average of one visit during an administration would cover it. The Secretary of War visits the Academy more frequently but neither he nor other distinguished visitors stay long enough to warrant such quarters. Any distinguished visitors can be well provided for by the Superintendent or in the new hotel.

The estimate of the architects for the several quarters, etc., in this group is, approximately: North tower \$50,000; official quarters \$95,000; Superintendent's quarters \$65,000, and four sets \$140,000—total \$350,000.

Some of these officers are not of high rank and the up-keep of such quarters would be expensive and I consider them extravagant.

The architects state that the cost has been largely increased by the fact:

... that the nature of the land necessitates for a portion of the group of foundations reaching down for a great distance below the level of the first floor in order that they may rest on solid footings.

I have heard the idea advanced that such a group of buildings on this site is necessary from an artistic point of view to tone in and harmonize with the other buildings and the general scheme. It would seem that a hotel of suitable design might accomplish this latter.

The Act of Congress, approved April 19, 1910, provides :

The Secretary of War is authorized to purchase, in his discretion, and at a price not to exceed \$150,000.00, for the use of the United States Military Academy and in lieu of the hotel provided for in the general plans, the buildings and grounds known as Ladycliff Academy, formerly Cranston's Hotel, adjacent to the Military Academy reservation, from the appropriation "For continuing

the work of increasing the efficiency of the United States Military Academy, West Point, New York, and to provide for the enlargement of buildings, and for other necessary work of improvement in connection therewith," authorized in Acts of Congress, approved June 28, 1902, April 28, 1904, March 3, 1905, and June 28, 1906, in accordance with the general plan approved by the Secretary of War, January 27, 1904.

In respect of the Ladycliff property, the facts from all that I can ascertain are as follows:

The owners of that property—a corporation—claim to have paid about \$57,000 for it at the outset, and to have spent approximately \$100,000 for improvements. It comprises the buildings now used as an academy, which was formerly Cranston's Hotel, and about forty-eight acres of land. At no time has the corporation desired to part with the property at any price, and cannot be expected to do so except at a price which will enable it to go to an equally desirable site and put up equally suitable buildings. This cannot be done for the limit of cost in the Act.

It may be advisable to procure, if possible, a portion of the land now within the Ladycliff property, but I do not see that it is necessary to obtain the whole plant of that corporation for hotel or other purposes. An investigation and survey to determine how much, if any, of this land should be acquired and at what cost, will be made.

The proposed site of the new hotel on the reservation has been changed once.

West Point, if it ever was, is not now a resort; those who visit here are the relatives and friends, principally of cadets, and of the officers stationed here. In the interest of time and economy they desire hotel accommodations as close to the cadet buildings as possible, and of moderate expense.

Therefore, after very careful consideration of all phases of this question, I am satisfied the best interests of the Academy and of economy do not warrant the construction of this group of buildings, that *the new hotel should be built on the site of the old one*, and that the funds for this group should be expended in the construction of suitable but not extravagant officers' quarters. This I recommend.

Under the plans for rebuilding the Academy the present Superintendent's quarters remain, as do the quarters now occupied by the permanent professors. There is some sentiment connected

with these old buildings and they will last for many years; and with the addition of a few buildings on what is now known as "Professors' Row" or in that vicinity, the Superintendent, the commandant of cadets, and the permanent professors can be there accommodated. The detailed professors and the military staff of the Superintendent can be provided with quarters elsewhere on the post.

The Academic Board unanimously concur in the above.

In respect of the sale of Ladycliff property the head of the corporation controlling that institution replied to request made by direction of the War Department as follows:

Missionary Sisters of the Third Order of St. Francis,

Peekskill, N. Y., March 29, 1911.

Major General Thomas H. Barry,
West Point, New York.

Dear Sir:

In answer to your favor of the 17th of March which I have referred to the Board of Trustees of the Ladycliff Academy, I have the honor to inform you that the Board of Trustees have no intention or wish to offer for sale at any price or consideration Ladycliff Academy with its grounds, excepting however that part of the property north of the landing road described in their former communication to Captain Youngberg.

Most respectfully,

JAMES I. CURRAN,
*President of the Board of Trustees,
Ladycliff Academy.*

Saloons.

On recommendation of the Military Academy and War Department authorities the Legislature of the State of New York enacted during its present session the following legislation:

(Chap. 762. An Act to amend the liquor tax law, in relation to sales of liquor to United States cadets.)

The people of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Chapter thirty-nine of the laws of nineteen hundred and nine, entitled "An act in relation to the traffic in liquors and for the taxation and regulation of the same, and to provide for local option, constituting chapter thirty-four of the consolidated laws," is hereby amended by adding thereto, after section thirty thereof, a new section, to be section thirty-a, to read as follows:

Section 30-a. *Sales of Liquors to United States Cadets at or near West Point.* It shall not be lawful for any person, whether having paid the tax imposed by this chapter or not, to sell, offer or expose for sale, or give away, any liquor within half a mile of the grounds of the United States Military Academy at West Point to any United States cadet in uniform, or to a person known to be a United States cadet, who is stationed at such academy.

Section 2. This act shall take effect immediately.

(Became a law July 24, 1911, with the approval of the Governor. Passed, three-fifths being present.)

This will protect the Academy for all time against encroachments of this character which at the present time are not very much in evidence except at the south end of the reservation where the numerous saloons in the village of Highland Falls abutt the reservation line as nearly as practicable and are a menace to good order on and off the reservation. As the bill was originally drawn it prohibited the sale of liquor within a mile of the reservation to soldiers and cadets at the Academy, but failed of enactment in that form. But for this wise provision of law this reservation would sooner or later be menaced as are nearly all military reservations by the establishment just over the reservation line of saloons, the majority of which would be driven out of business if the sale of light wines and beer were permitted in post exchanges.

Military Academy Regulations.

The Academic Regulations, which have been in force since 1902, have been carefully revised, and the 1911 edition will go into effect this date.

The principal features of the revision are those made necessary by reason of the return to the four-years' course.

Distinguished Graduates.

The question of "distinguished graduates" has also received very careful consideration by the Academic Board with the result that with the incoming class, the class of 1915, a new method will be put into operation in determining the "distinguished graduate" or a cadet who is "distinguished" in any subject.

Since the beginning of the Academy five cadets have been arbitrarily noted as "distinguished" no matter what the size of class, or what their ratings in any particular subject may have

been. *They simply stand from one to five in the class at any year to be "distinguished."* This did not seem fair because one-quarter of a class of about twenty members were "distinguished" whereas the same number—five—or one twenty-fifth of a class of 125 members were "distinguished."

A committee of the Academic Board having this matter under consideration believed it—

More logical, more appropriate and more just that the list of distinguished cadets should be based upon a percentage of the maximum marks rather than merely to embrace a *specific number* from the class roll. It is also the opinion of the committee that this percentage should be carefully determined and so fixed as to indicate a high degree of academic merit and that once determined it should remain unchanged so long as academic conditions remain essentially the same. Owing to the fact that the proportional parts, which establish the relative standing of cadets, does not represent their actual marks, the committee does not think that there is readily available the necessary data to determine the *precise minimum* percentage that should establish the list of distinguished cadets.

The cadet coming out No. 1 in a particular subject has always received and still receives the full weight assigned that subject as his proportional part, without considering his actual mark as *compared* to his possible mark in the subject. This *assignment* to the *first* man on the roll coupled with the proportional determinations of parts for the other members of the class establishes a class roll of proportional parts not giving the actual percentages *made*, out of the possible maximum.

The committee thinks that the first step in establishing a minimum percentage for distinction should be made by having the roll of proportional parts accurately express the proportion of *actual* to *possible* marks. This result can be accomplished by giving each cadet that proportion of the weight of the subject that his total mark bears to the possible maximum mark in the subject.

The committee therefore recommends that the method just outlined for forming proportional parts be adopted for the class entering in June and continued for all subsequent classes. The data that will be thus supplied by the Fourth Class between June, 1911, and 1912, coupled with that which can be prepared in the same interval by each department from the merit rolls of the different classes now on hand, and those that will be made during the coming academic year, will be sufficient to enable the minimum percentage for class distinction to be satisfactorily determined, so that the distinguished list of the Fourth Class in June, 1911, and every class thereafter, can be based upon percentages. The data above referred to, to be had from the merit rolls of the present classes, can be determined by each department from the class committee reports and the readjustment for percentage comparison need probably extend only to the 12th or 15th member on the rolls. For the reason that the percentage basis cannot be satisfactorily determined and applied to the present classes without making entirely new rolls of proportional parts in all subjects,

it is recommended that the present custom of indicating the distinguished list be adhered to for these classes, and that the change to a percentage basis be instituted with the Fourth Class of 1912 and continued thereafter; also that the percentage to establish distinction be decided upon after the necessary data above referred to is accumulated by the close of the next academic year.

These views were concurred in by the Academic Board.

Reunion of Graduates.

The annual reunion and meeting of the alumni takes place annually during the graduation exercises in June. This year it occurred on June 12 when an unusually large number of graduates were present. Several classes held class reunions and dinners.

The meeting this year took place in the new chapel. At the conclusion of the business meeting General Horace Porter on behalf of the donors presented the memorial window to the Academy in his usually handsome and fitting way. It was accepted for the Academy by the Superintendent.

It is gratifying to have the graduates assemble here annually as it makes for good fellowship and the interests of the institution. The authorities and all at the Academy appreciate their coming and will do all in their power to make their visit pleasant.

The new organ has been installed in the new chapel and provision made by Congress for a competent organist and choir-master.

It is a pleasure to record the interest taken in the Academy by the Secretary of War, the Chief of Staff, The Adjutant General, and the bureau chiefs of the War Department and their helpful assistance in promptly meeting all requests and suggestions made concerning its administration:

The principal aids to the Superintendent are:

The Academic Board, having charge of all academic instruction;

The commandant of cadets, who has charge of all military instruction and discipline;

The staff.

It would be difficult to find more harmonious or better coordinated bodies of assistants than those above mentioned, to whom all credit is due for whatever success has been attained in the administration of the United States Military Academy during the past year.

To them and to their able assistants acknowledgments are due and are hereby extended.

Very respectfully,

THOMAS H. BARRY,

Major General, U. S. Army,

Superintendent.

The Adjutant General of the Army,
Washington, D. C.