

ANNUAL REPORT

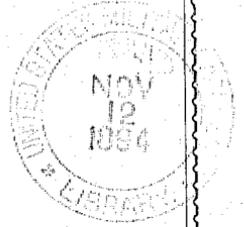
OF THE

SUPERINTENDENT

OF THE

UNITED STATES MILITARY ACADEMY.

1894.



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SUPERINTENDENT U. S. MILITARY ACADEMY.

HEADQUARTERS U. S. MILITARY ACADEMY,
West Point, N. Y., September 24, 1894.

The ADJUTANT-GENERAL, U. S. ARMY,
Washington, D. C.:

SIR: I have the honor to submit this my annual report for the Military Academy for the year ending September 1, 1894:

PERSONNEL.

The number of officers and instructors on duty at West Point September 1, 1894, was 8 professors, 1 associate professor, 53 commissioned officers, 1 swordmaster, and 1 teacher of music, a total of 64. (See roster appended, marked A.) The number September 1, 1893, was 66. The decrease during the year was effected by a reduction of 1 in the department of tactics and 1 in the department of law. In all, 11 officers joined during the year and 13 were relieved.

By the act approved July 26, 1894, it was provided that "hereafter no graduate of the Military Academy shall be assigned or detailed to serve at said Academy as a professor, instructor, or assistant to either within two years after his graduation, and so much of the act of June 30, 1882, as requires a longer service than two years for said assignments or details is hereby repealed." This change in the law by widening the field of selection for instructors will be of much advantage to the Academy. There are many young officers quite competent to teach, particularly in the departments of mathematics and of modern languages, who have had less than four years' service since graduation.

The number of cadets present and absent September 1, 1894, was 322, including 2 foreigners receiving instruction by special authority of Congress in each case. The number September 1, 1893, was 318, including 3 foreigners. During the year 34 were discharged for deficiency in studies, 1 for deficiency in discipline, 1 was dismissed, 8 resigned, 1 (a foreigner) was withdrawn, and 54 graduated; while there were admitted in all at the three examinations held in March, June, and August, 101, and 2 of those discharged were reinstated.

For the three examinations referred to there were appointed in all 304 candidates, including 112 alternates. Of these 40 failed to appear and 159 were found not duly qualified, either mentally or physically, or both. Of the remaining 105 who passed, 12 were alternates whose

principals also passed and for whom there were therefore no vacancies, leaving 93 who were regularly admitted. Of those rejected by the medical board, 8 were subsequently admitted on probation. In many cases the candidates had been rejected at previous examinations.

The experience of former years has been similar to this, and shows clearly that it is not practicable to keep the number of cadets up to the maximum authorized by law, and that there will always be many vacancies. The number now authorized is 371, omitting the foreigners, an excess of 51 above the number actually belonging to the Academy. It is desirable, I think, from every point of view, that the Academy be worked up to the full capacity of its present plant. It should furnish all the officers for our Army in time of peace, which it can not now do, and if in addition it could send into civil life each year a few young men trained as its graduates are the country would be the gainer by many times the trifling additional cost of their education. A moderate increase in the number of cadets authorized by law is accordingly recommended; such, for example, as would be obtained by appointing 2 at large from each State, to be nominated by the Senators representing the State in Congress.

ACADEMIC DEPARTMENTS.

The departments of philosophy, drawing, mathematics, chemistry, etc., history, etc., engineering, law, modern languages, tactics, practical military engineering, and of ordnance and gunnery have maintained the high standard of instruction for which they have always been noted. While the heads of these departments have not failed to keep abreast of all advances made in their special branches of knowledge, and to introduce improvements when opportunity offered, the changes in the majority of them have been of a minor character, and do not call for special mention here.

The time left vacant in the first-class course by the improvement and condensation of the department of modern languages, referred to in my last annual report, was divided between the departments of law, of history, etc., of tactics, and of ordnance and gunnery, giving to the first 19, to the second 22, to the third 12, and to the fourth 6 additional recitations, to take effect when the present third class reaches the first-class year.

The department of law is the only one headed by a full professor that is not provided with an assistant professor having the pay of captain mounted. It seems but just that this department should be placed upon the same footing in this respect as the others. I recommend that legislation authorizing the appointment of an assistant professor of law be solicited.

THE LIBRARY.

There were added to the library during the last fiscal year 953 volumes, and 250 pamphlets (books containing less than 100 pages). There are now on hand 37,015 bound volumes and 5,578 pamphlets, besides many valuable manuscripts, maps, and portraits. The library has entirely outgrown the space heretofore allotted to it. As stated last year, one of the most pressing needs of the Academy is the reconstruction internally of the library building, by which it shall be made fireproof, and shall provide proper space for a convenient arrangement of the books and for reading rooms. It may be added that the necessity is more pressing this year than it was last, and will continue to become more and more so each year.

The growth of the library has made necessary also a reorganization of its management. The officer of the Academy who, under the regulations is the librarian, can give only a general supervision to its affairs. Upon the librarian's assistant must devolve the labor of arranging and cataloguing new new books, of keeping the records, of being present during a large part of the day to issue and receive books and periodicals, and of preserving order. By a rare piece of good fortune the Academy managed in 1844 to secure the services of an enlisted man, Private André Freis, who was able to perform these services satisfactorily, and who did perform them for nearly half a century. Recognizing the importance of the duties, Congress began in 1871 to appropriate annually \$1,000 for his compensation in addition to his pay and allowances as enlisted man. He died on the 8th of March last, respected and lamented by all. The library had grown from about 13,000 volumes in 1844 to nearly its present dimensions, and he had grown up as a librarian with it. It was quite impossible to find an enlisted man competent to replace him. A man of education, devoted entirely to books, familiar with foreign languages, of systematic habits, knowing where to place his hand upon any book or periodical which may be called for, is needed as librarian's assistant. Dr. Otto Plate, a civilian, was appointed to the position, and has given entire satisfaction. The money available for payment of his salary was the annual appropriation of \$1,000. This amount having been originally fixed upon as an addition to the salary otherwise received by the incumbent, is manifestly not sufficient when constituting, as it now does, the entire salary of the librarian's assistant. It should be increased to \$1,500 per annum.

A copy of my order announcing the death of Private Freis is hereto appended, marked B. A tasteful monument to his memory is in course of erection here, to be paid for by subscriptions contributed by officers of the Army.

The report of the librarian is hereto appended, marked C.

HEALTH.

The general health of the command was good. No death occurred among the cadets or among the officers or their families. Two deaths occurred among the enlisted men, and nine among civilians residing or visiting upon the post. In general the sanitary condition of the post is good. Some further extension of the improvements in plumbing and sewerage are contemplated. The barrack of the engineer company is overcrowded, making it necessary to place some of the men in tents during the summer. The report of the post surgeon is hereto appended, marked D.

DISCIPLINE.

The state of discipline of the corps has been generally excellent. It was necessary to convene courts-martial several times during the year, resulting in the dismissal of 1 cadet, the resignation of 1, and the suspension of 3. The usual discipline was maintained in the other portions of the command by the usual methods.

ACCOUNTS AND SUPPLIES.

The system of keeping the accounts and of furnishing the cadets with supplies continued essentially as heretofore reported. An abundance of good healthy food in sufficient variety was furnished at an average

cost of slightly less than 52 cents per man per day. Clothing, books, and other articles were furnished of good quality and at low rates. After careful investigation a new pattern of shoe was adopted which has thus far given entire satisfaction. It is well-shaped to the foot, light, flexible, and durable, and presents a neat appearance. A high shoe is provided for midwinter and for riding, but the constant use of high shoes by young men having a tendency to weaken the ankle, the standard shoe is low. Considerable dissatisfaction was found with the work of the laundry during the summer months, when the work was heaviest. Among other changes it was found necessary to return to the old system, by which each cadet is charged for the work done, instead of dividing the total expenses of the laundry equally among the entire corps. Attention is invited for details to the report of the treasurer and quartermaster and commissary of cadets hereto appended, marked E.

ARTILLERY.

Further progress was made in replacing guns and carriages which had become obsolete with those of modern pattern. Important additions were made to the list of models and sample guns for the general theoretical instruction of cadets. For details, attention is invited to the report of the instructor of ordnance and gunnery, hereto appended, marked F.

The work of constructing new permanent platforms in the seacoast battery for a new 8-inch rifle, a new 12-inch breech-loading mortar, and 3 front pintle platforms has been begun.

The drivers for the light battery are obtained from the cavalry detachment. This service has not been popular with the cavalry soldiers. Their instruction and service as drivers is additional to their regular duties, and is under officers different from their regular officers. It involves considerable wear and tear of clothing, for which they should receive compensation. I recommended last year that they be paid 30 cents each per day extra for the time during which they are employed upon the extra duty, the total amount required for the 28 men concerned being \$840 for the year. The appropriation bill for the current year contains an item of \$560 for this purpose. In future appropriations the amount should, I think, be increased to \$840, as originally recommended.

I beg leave to repeat my remarks of last year upon the subject of the band, the master of the sword, and the adjutant of the Academy, as follows, viz:

BAND.

By the act of March 3, 1877, the Military Academy band was reduced to 1 teacher of music and 24 enlisted men, which is its present authorized strength. Of the enlisted men 6 receive \$34 per month, 6 \$20, and the remaining 12 \$17, with the usual allowances of enlisted men. At the time of this reduction the band consisted of 1 teacher of music and 40 enlisted musicians, of whom 10 received \$34 and the remaining 30 received \$30 per month, with the usual allowances of enlisted men. Since that date every superintendent of the Academy, with perhaps one exception, and many or all boards of visitors have recommended an increase of the band. To anyone familiar with music it needs no argument to prove that the present numbers and pay are not sufficient. Is a good band really necessary to the practical efficiency of the Academy, is the only question which can be asked. The

answer is plain when the purpose which the band subserves is considered. Military pomp has a serious and practical object—the cultivation of the military spirit. It is in the same category with patriotic songs, discipline, and monuments to dead heroes. There is no more essential part of it than good music. I recommend that the band be restored to the numbers and pay which it had before the reduction in 1877. I recommend, further, that the leader receive the rank, pay, and emoluments of a second lieutenant of infantry. The increase is desired not for the purpose of gratifying an idle vanity or merely to provide pleasure, but to improve the finer polish given to the finished product of the Academy.

MASTER OF THE SWORD.

The swordmaster is also the instructor in gymnastics and swimming. He is a civilian, appointed by the Secretary of War. The present incumbent has worked up an admirable course of gymnastics for the corps of cadets. His system of calisthenics has been adopted by the War Department for the use of the Army. He is required to preserve discipline and to exercise control of cadets while under his instruction. It would greatly strengthen his hand if he should have military rank, and, in view of the great and increasing importance of his department, I recommend that legislation be solicited giving him the rank, pay, and emoluments of a first lieutenant of infantry.

ADJUTANT OF THE ACADEMY.

The Adjutant of the Academy is also secretary of the academic board, and upon occasions of ceremony acts as aide-de-camp to the superintendent. His duties are at least as important as those of an assistant professor, and they are more onerous, while his personal expenses are greater. It seems but just that the officer holding this position should receive the pay of captain, mounted, as in the case of assistant professors. Legislation to that effect is recommended.

ATHLETICS.

Upon assuming command here in the spring of 1893, I found that athletic sports among cadets were receiving a degree of attention that was unknown at the periods of my former service at the Academy. A match game of football had been played with the cadet midshipmen of the U. S. Naval Academy each year for three years in succession, giving to that game in particular an extraordinary interest here, and attracting the attention of the Army at large and of the Navy, as well as of the general public. To aid in defraying the expenses of these sports, which are very considerable, an Army Officers' Athletic Association had been formed, having a membership of several hundred officers and ex-officers of the Army. All of the professors and nearly all of the officers stationed here were members. I learned, in September, that plans had been made for the autumn season, which included engagements with teams from other institutions to play match games here, and the employment of special instructors to train the cadets in football. These plans had been made, or at least begun, in the previous winter and spring. Apparently it was assumed that the War Department would permit the game at Annapolis to be repeated. That there were serious objections to this seemed to me evident. Yet the benefits to be derived from the game were so obvious, the desire to

play the Annapolis match after the defeat of the year before was so intense, and the matter had gone so far that I determined to make no opposition to the match game, and to defer coming to any definite conclusions as to its merits until observation should enable me to weigh more carefully its relative advantages and disadvantages.

This course having received the approval of the Major-General Commanding the Army, the preparations were continued. Under the authority contained in your telegram of November 23, 31 cadets were permitted to visit Annapolis, where the game was played December 2. A few days later, December 12, I submitted a special report discussing the question at length in the light of all the information that I had been able to collect. Extensive extracts from that report are hereto appended marked G. My conclusions were that football as controlled here had been beneficial to scholarship and an aid to discipline, and should receive a proper degree of encouragement, but that the match game with the Naval Academy had done much to undo these good results, and would if continued entirely undo them, and being objectionable otherwise should not be permitted to recur. On the 26th of February the honorable Secretary of War issued the following instructions, viz: "The game of football will be permitted at the U. S. Military Academy under such regulations as may now or hereafter be prescribed by the superintendent. He may permit teams from other institutions to visit West Point and to play there with the Academy's team; but the team of cadets is prohibited from engaging in matches elsewhere." Like instructions in regard to the Naval Academy and its football team were issued by the honorable Secretary of the Navy. Engagements have been made with teams from several civilian colleges to play here this season, a special instructor has been employed, and so far as can now be observed the general interest in the game has not been injuriously affected by the prohibition of the Annapolis match.

WATER SUPPLY.

At the date of my last annual report the subject of location of the new reservoir was receiving careful study. All available sites on or near the Government reservation were examined and compared with each other, the questions of capacity, convenience, cost, quality of water, and legal complications being duly considered. A full report upon the subject, dated November 17, 1893, was submitted by Capt. James L. Lusk, Corps of Engineers, the officer in charge of the water supply, and was forwarded to the War Department with my letter of December 7, 1893, together with a report by Lieut. Col. J. W. Clous, upon the legal questions involved in the consideration of the various plans. The result of the investigation was to confirm the conclusion reached by my predecessor, that the best site available was that known as the Fort Putnam swamp. It was found, however, that a masonry dam must be constructed instead of an earthen dam, and that the old road in the vicinity must be submerged, and must therefore be replaced by a new one. The estimate of cost had to be increased to \$63,635. The project having been approved by your letter of January 29, 1894, the work was begun in April. A fine road located above the flow line and upon the side of the basin opposite to the old one has been constructed, the site of the reservoir cleared of timber, and the earth excavation for the dam has been completed. In addition to the sums provided in the appropriation bills for the last year and for the current year, a further appropriation of \$17,375 will be needed.

The prolonged drought of the past summer again caused anxiety concerning the supply of water, and measures of economy in its use became necessary early in August. Fortunately at the beginning of the summer the reservoirs were all full. Thus far the post has escaped with some sacrifice of lawns and some deterioration of the quality of the water due to the low stage of Round Pond. In connection with the water supply attention is invited to the report of the instructor of practical military engineering hereto appended, marked H.

BUILDINGS AND GROUNDS.

The report of the post quartermaster, who is also quartermaster and disbursing officer of the academy, is hereto appended, marked I.

In the act approved July 26, 1894, it was provided, "That nothing contained in the act making appropriation for the support of the Military Academy for the fiscal year ending June 30, 1891, shall be interpreted to prevent the number of men in the Detachment of Army-service men of the Quartermaster's Department therein provided for being made as high as 150, if in the opinion of the Secretary of War such number be required." The necessity of an increase in the number of men, now 117, of this detachment has been long felt, but there appeared to be a doubt whether the increase could be made under the old law. The legal objection has now been removed.

Some progress was made during the year in settling the controversy with the contractors over the new gymnasium building. The second contractor, John Moore, finally completed the small items of work to which reference was made in my last report, and received his final payment. The first or failing contractor has been dilatory in signing the necessary papers, but it is expected that a settlement with him can be effected at an early day.

The progress made during the year upon the new academy building has been slow, and no portion of it is ready for occupation. The last extension of time for completing the contract expired on the 15th instant. The contractors are now incurring the penalty of \$20 per day provided in the contract. The outside walls are completed sufficiently to give the architectural effect of the finished building, excepting of course the high tower. It seems to be the unanimous opinion of all who see it that the building is a credit to the institution and to the architect. The high tower is needed to complete the architectural design as well as to display prominently the clock. An estimate for building it is submitted. An estimate is submitted also for furniture, including gas fixtures for the building.

The new building for sinks and bathrooms for cadets, the new boiler house, the extension of the gas works, and the quarters for steward of the soldiers' hospital were all completed during the year, and fair progress was made upon the quarters for unmarried officers, and the set of quarters for a married officer.

The general condition of the roads upon the reservation was greatly improved by reballasting with gravel. The work of regrading and reconstructing the main road from Highland Falls, to give it a proper character as the principal entrance to the post, was begun and is still in progress. An estimate is submitted for a new guardhouse, of permanent character and appropriate design, to be placed near the junction of the main road with the back road, about an eighth of a mile from the southern boundary.

An important addition to the equipment for roadmaking is a steam road roller, for which an appropriation was made in the last act. This, with the stone crusher procured last year, will enable us to gradually macadamize and make permanent all the roads upon the reservation.

Work upon the battle monument made good progress during the year, and is now nearing completion as it was designed. But the figure of Victory at the top has been so severely criticised that the executive committee has decided to have it taken down and replaced by another figure. This action was taken with due deliberation upon the advice of the architect, given after consultation with the sculptor and other artists. The final completion of the monument will accordingly be deferred until next spring.

In September, 1893, the board of trustees of the memorial hall, anticipating considerable delay in the preparation and selection of plans, selected as the architects of the building Messrs. McKim, Mead, and White, of New York, although the funds bequeathed by Gen. Cullom were not then available. This selection having received the approval of the honorable Secretary of War, the gentlemen referred to visited West Point and gave the board the benefit of their advice in the selection of a site. A careful contour survey was made of the ground. In April last the architects presented a number of sketch plans, from which the board selected one with modifications. Fuller drawings were made and an estimate of cost obtained, when it was found that the cost of the building, according to that plan, would far exceed the amount available. New studies were undertaken, the result of which was laid before the trustees a few days ago. It is hoped that plans can be perfected in time to let a contract this autumn, and to begin the work of construction in the spring of 1895. The entire amount of the bequest, \$250,000, has been paid into the Treasury, by Gen. Cullom's executors, except \$12,500 retained by them to await the decision of the courts in the matter of the 5 per cent inheritance tax. The State of New York levies a tax of 5 per cent upon bequests, but the legality of the tax in this case is disputed. The Government has contested the tax before the surrogate and has been defeated. It has taken the matter into the supreme court of the State and has been defeated, and has since taken it to the court of appeals, where it now lies awaiting decision. An act relinquishing the tax was passed by the legislature of the State at its last session, this action being very largely due to the efforts of Lieut. Col. Clous, professor of law. The act was vetoed by the governor (see Appendix K). The site selected for the building and approved by the War Department is on the slope northeast of the library, between Dade's monument and the cavalry barracks.

ESTIMATES.

The estimates for the next fiscal year include some costly improvements, such as the clock tower for the new academy building, furniture for that building, the reconstruction of the library building and the completion of the new reservoir. Among the less costly items are a guardhouse for the south gate, a commissary storehouse, additional quarters for officers, quarters for the teacher of music and for the steward of the cadet hospital, a stable for officers' horses, a sidewalk from the south dock to the top of the hill, a piazza for the cavalry barracks, two public latrines for the use of visitors, new and enlarged gas mains, and moving a building erected some forty years ago and now an obstruction. There are numerous items of minor improvements. In all they

foot up to an amount considerably larger than the appropriations for the current year, but they do not include anything which is not in my judgment for the good of the Academy. The necessity of each is explained in the remarks accompanying the estimates. They are all commended to favorable consideration.

CONCLUSION.

In conclusion I have to report that the Academy is in a flourishing condition. It is passing through an era of improvement so far as its equipment and outward physical condition are concerned, due to the greater liberality of Congress in recent years. The curriculum, both theoretical and practical, is the result of many years' experience, and has proved itself well adapted to the objects of the institution. The professors and officers are accomplished, each in his sphere, and are devoted to their work; and deserve well of the Government.

Very respectfully, your obedient servant,

O. H. ERNST,

Colonel of Engineers, Superintendent.

LIST OF APPENDICES.

A—Roster.

B—Orders, No. 36, U. S. Military Academy, March 8, 1894.

C—Report of librarian.

D—Report of post surgeon.

E—Report of treasurer and quartermaster and commissary of cadets.

F—Report of instructor of ordnance and gunnery.

G—Report of superintendent upon athletics, December 12, 1893.

H—Report of instructor of practical military engineering.

I—Report of the quartermaster of the Military Academy.

K—Veto message of the governor of New York.

A.

UNITED STATES MILITARY ACADEMY,

WEST POINT, NEW YORK.

SUPERINTENDENT.

Col. O. H. ERNST, Major, Corps of Engineers.

MILITARY STAFF.

- First Lieut. John M. Carson, jr., Fifth Cavalry, adjutant of the Military Academy, post adjutant, and recruiting officer.
Capt. William F. Spurgin, Twenty-first Infantry, treasurer of the Military Academy, and quartermaster and commissary of cadets.
* Capt. William H. Miller, assistant quartermaster, U. S. Army, quartermaster of the Military Academy, post quartermaster, and disbursing officer.
First Lieut. Barrington K. West, Sixth Cavalry, post commissary of subsistence and post treasurer; in charge of post exchange.
First Lieut. William Weigel, Eleventh Infantry, assistant to post quartermaster and officer of police.
Maj. George H. Torney, surgeon, U. S. Army, post surgeon.
Capt. Charles F. Mason, assistant surgeon, U. S. Army.
First Lieut. Frederick P. Reynolds, assistant surgeon, U. S. Army.

ACADEMIC STAFF.

Professors whose service at the Academy as professor exceeds ten years have the assimilated rank of colonel, and all other professors the assimilated rank of lieutenant-colonel.

DEPARTMENT OF NATURAL AND EXPERIMENTAL PHILOSOPHY.

- Peter S. Michie, professor (14 Feb., 1871).
Capt. William B. Gordon, Ordnance Department, assistant professor.
First Lieut. Samuel E. Allen, Fifth Artillery; First Lieut. Lucien G. Berry, Fourth Artillery, instructors.
First Lieut. Samuel D. Freeman, Tenth Cavalry, in charge of observatory and astronomical observations.

DEPARTMENT OF DRAWING.

- Charles W. Larned, professor (25 July, 1876).
First Lieut. George H. Cameron, Fourth Cavalry, assistant professor.
First Lieut. Austin H. Brown, Fourth Infantry; Second Lieut. Charles B. Hagadorn, Twenty-third Infantry, instructors.

DEPARTMENT OF MATHEMATICS.

- Edgar W. Bass, professor (17 April, 1878).
† Wright P. Edgerton, associate professor (1 July, 1893).
First Lieut. George F. Barney, Second Artillery, assistant professor.
First Lieut. Edmund D. Smith, Nineteenth Infantry; First Lieut. Robert L. Hirst, Eleventh Infantry; First Lieut. Daniel B. Devore, Twenty-third Infantry; First

* To be relieved by Capt. J. B. Bellinger, assistant quartermaster.

† Associate professor, with the rank of captain.

Lieut. John D. Barrette, Third Artillery; Second Lieut. Charles D. Palmer, Fourth Artillery; Second Lieut. John S. Winn, Second Cavalry; Second Lieut. William O. Johnson, Nineteenth Infantry, instructors.

DEPARTMENT OF CHEMISTRY, MINERALOGY, AND GEOLOGY.

Samuel E. Tillman, professor (21 Dec., 1880).

First Lieut. Richmond P. Davis, Second Artillery, assistant professor.

First Lieut. Edgar Russel, Fifth Artillery; First Lieut. George Montgomery, Ordnance Department; Second Lieut. Walter A. Bethel, Fourth Artillery, instructors.

DEPARTMENT OF HISTORY, GEOGRAPHY, AND ETHICS.

William M. Postlethwaite, chaplain, professor (21 Dec., 1881).

First Lieut. Barrington K. West, Sixth Cavalry, assistant professor.

DEPARTMENT OF CIVIL AND MILITARY ENGINEERING.

James Mercur, professor (29 Sept., 1884).

First Lieut. Henry C. Newcomer, Corps of Engineers, assistant professor.

First Lieut. Thomas H. Rees, Corps of Engineers; Second Lieut. Clement A. F. Flagler, Corps of Engineers, instructors.

DEPARTMENT OF LAW.

John W. Clous, lieutenant-colonel and deputy judge-advocate-general, U. S. Army, professor (28 Aug., 1890). (By assignment under act 6 June, 1874.)

First Lieut. James A. Cole, Sixth Cavalry, instructor.

DEPARTMENT OF TACTICS.

Lieut. Col. Samuel M. Mills, captain, Fifth Artillery, commandant of cadets and instructor of tactics (1 Sept., 1892).

Capt. James Parker, Fourth Cavalry, senior assistant instructor of cavalry tactics.

First Lieut. Alexander B. Dyer, Fourth Artillery, senior assistant instructor of artillery tactics. Commanding band and detachment of field music.

First Lieut. Samuel W. Dunning, Sixteenth Infantry, senior assistant instructor of infantry tactics. Commanding company of cadets.

First Lieut. Wilds P. Richardson, Eighth Infantry, assistant instructor of tactics. Commanding company of cadets.

First Lieut. William H. Allaire, Twenty-third Infantry, assistant instructor of tactics. Commanding company of cadets.

First Lieut. Willard A. Holbrook, Seventh Cavalry, assistant instructor of tactics. Commanding company of cadets.

Second Lieut. Matthew C. Butler, jr., Fifth Cavalry, assistant instructor of cavalry tactics.

DEPARTMENT OF MODERN LANGUAGES.

Edward E. Wood, professor (1 Oct., 1892).

First Lieut. Cornelis DeW. Willcox, Second Artillery, assistant professor of the Spanish language.

First Lieut. Arthur F. Curtis, Second Artillery, assistant professor of the French language.

First Lieut. William S. Biddle, jr., Fourteenth Infantry; First Lieut. Arthur Thayer, Third Cavalry; First Lieut. Benjamin A. Poore, Sixth Infantry; First Lieut. Peter E. Traub, First Cavalry; First Lieut. Marcus D. Cronin, Twenty-fifth Infantry, instructors.

DEPARTMENT OF PRACTICAL MILITARY ENGINEERING.

Capt. James L. Lusk, Corps of Engineers, instructor (31 March, 1893).

First Lieut. Mason M. Patrick, Corps of Engineers; Second Lieut. Charles S. Bromwell, Corps of Engineers, assistant instructors.

DEPARTMENT OF ORDNANCE AND GUNNERY.

Capt. Lawrence L. Bruff, Ordnance Department, instructor (17 Aug., 1891).

First Lieut. Edwin B. Babbitt, Ordnance Department; Second Lieut. Henry D. Todd, jr., Third Artillery, assistant instructors.

Herman J. Koehler, master of the sword.

Arthur A. Clappé, teacher of music.

List of officers, with relative rank, at the U. S. Military Academy.

Name.	Corps or regiment.	On duty at the Academy since—
<i>Colonels.</i>		
Ernst, Oswald H	Corps of Engineers	April 1, 1893.
Michie, Peter S.	Professor (February 14, 1871)	April 23, 1867.
Larned, Charles W	Professor (July 25, 1876)	August 28, 1874.
Bass, Edgar W	Professor (April 17, 1878)	September 15, 1876.
Tillman, Samuel E	Professor (December 21, 1880)	August 28, 1879.
Postlethwaite, William M.	Professor (December 21, 1881)	January 6, 1882.
<i>Lieutenant-colonels.</i>		
Mercur, James	Professor (September 29, 1884)	October 7, 1884.
Clous, John W	Professor (August 28, 1890)	August 28, 1890.
Mills, Samuel M	Captain, Fifth Artillery, commandant of cadets	September 1, 1892.
Wood, Edward E	Professor (October 1, 1892)	August 28, 1889.
<i>Major.</i>		
Torney, George H	Surgeon, Medical Department	July 17, 1894.
<i>Captains.</i>		
Spurgin, William F	Twenty-first Infantry	September 2, 1881.
Lusk, James L	Corps of Engineers	March 31, 1893.
Parker, James	Fourth Cavalry	August 13, 1894.
Bruff, Lawrence L	Ordnance Department	August 17, 1891.
Miller, William H	Assistant quartermaster, Quartermaster's Department	November 8, 1890.
Gordon, William B	Ordnance Department	August 20, 1894.
Edgerton, Wright P	Associate professor (March 14, 1893)	January 28, 1889.
Mason, Charles F	Assistant surgeon, Medical Department	July 16, 1894.
<i>First lieutenants.</i>		
Dyer, Alexander B	Fourth Artillery	August 31, 1892.
Dunning, Samuel W	Sixteenth Infantry	August 29, 1891.
Allen, Samuel E	Fifth Artillery	August 20, 1892.
Newcomer, Henry C	Corps of Engineers	Do.
Barney, George F	Second Artillery	August 28, 1889.
Babbitt, Edwin B	Ordnance Department	August 28, 1890.
Patrick, Mason M	Corps of Engineers	April 25, 1892.
Free man, Samuel D	Tenth Cavalry	June 30, 1893.
Smith, Edmund D	Nineteenth Infantry	August 17, 1891.
Richardson, Wilds P	Eighth Infantry	February 10, 1892.
Rees, Thomas H	Corps of Engineers	August 22, 1893.
Allaire, William H	Twenty-third Infantry	June 15, 1893.
Hirst, Robert L	Eleventh Infantry	August 17, 1891.
West, Barrington K	Sixth Cavalry	February 18, 1893.
Cameron, George H	Fourth Cavalry	August 28, 1888.
Cole, James A	Sixth Cavalry	August 20, 1892.
Willcox, Cornelis DeW	Second Artillery	Do.
Carson, John M., jr	Fifth Cavalry	May 15, 1890.
Curtis, Arthur F	Second Artillery	August 20, 1892.
Holbrook, Willard A	Seventh Cavalry	Do.
Brown, Austin H	Fourth Infantry	February 9, 1892.
Biddle, William S., jr	Fourteenth Infantry	August 21, 1892.
Devore, Daniel B	Twenty-third Infantry	August 20, 1892.
Reynolds, Frederick P	Assistant surgeon, Medical Department	February 22, 1893.
Barrette, John D	Third Artillery	August 20, 1892.
Thayer, Arthur	Third Cavalry	August 17, 1891.
Poore, Benjamin H	Sixth Infantry	August 22, 1893.
Berry, Lucien G	Fourth Artillery	August 20, 1892.
Traub, Peter E	First Cavalry	November 11, 1892.
Davis, Richmond P	Second Artillery	August 17, 1891.
Russel, Edgar	Third Artillery	August 22, 1893.
Weigel, William	Eleventh Infantry	April 9, 1894.
Montgomery, George	Ordnance Department	August 20, 1894.
Cronin, Marcus D	Twentieth Infantry	August 22, 1893.
<i>Second lieutenants.</i>		
Palmer, Charles D	Fourth Artillery	August 20, 1892.
Winn, John S	Second Cavalry	August 22, 1893.
Butler, Matthew C	Fifth Cavalry	June 15, 1893.
Flagler, Clement A. F	Corps of Engineers	August 20, 1894.
Hagadorn, Charles B	Twenty-third Infantry	Do.
Bethel, Walter A	Fourth Artillery	Do.
Bromwell, Charles S	Corps of Engineers	June 1, 1893.
Johnson, William O	Nineteenth Infantry	August 20, 1894.
Todd, Henry D., jr	Third Artillery	Do.

TROOPS.

Battalion of cadets.

Lieut. Col. Samuel M. Mills, captain, Fifth Artillery, commanding.
 Company A, First Lieut. Wilds P. Richardson, Eighth Infantry, commanding.
 Company B, First Lieut. William H. Allaire, Twenty-third Infantry, commanding.
 Company C, First Lieut. Samuel W. Dunning, Sixteenth Infantry, commanding.
 Company D, First Lieut. Willard A. Holbrook, Seventh Cavalry, commanding.

Hospital corps.

Maj. George H. Torney, surgeon, U. S. Army, commanding.
 Capt. Charles F. Mason, assistant surgeon, U. S. Army.
 First Lieut. Frederick P. Reynolds, assistant surgeon, U. S. Army.

U. S. Military Academy detachment of Army service men.

Capt. William H. Miller, A. Q. M., post quartermaster, commanding.
 First Lieut. William Weigel, Eleventh Infantry.

Company E, battalion of engineers.

Capt. James L. Lusk, Corps of Engineers, commanding.
 First Lieut. Mason M. Patrick, Corps of Engineers.
 Second Lieut. Charles S. Bromwell, Corps of Engineers.

U. S. Military Academy detachment of ordnance.

Capt. Lawrence L. Bruff, Ordnance Department, commanding.
 First Lieut. Edwin B. Babbitt, Ordnance Department.

U. S. Military Academy detachment of cavalry.

Capt. James Parker, Fourth Cavalry, commanding.
 Second Lieut. Matthew C. Butler, jr., Fifth Cavalry.

U. S. Military Academy band and detachment of field music.

First Lieut. Alexander B. Dyer, Fourth Artillery, commanding.

HEADQUARTERS U. S. MILITARY ACADEMY,
West Point, N. Y., September 15, 1894.

Official:

J. M. CARSON, JR.,
First Lieutenant Fifth Cavalry, Adjutant.

B.

ORDERS, }
 No. 36. }

HEADQUARTERS U. S. MILITARY ACADEMY,
West Point, N. Y., March 8, 1894.

EXTRACT.

II. The superintendent has to make to the officers and cadets of the Military Academy the painful announcement of the death this morning of Private André Freis, detachment of Army service men, Quartermaster's Department, assistant to the librarian.

Private Freis enlisted at this post May 1, 1841, and was assigned to duty as assistant librarian November 5, 1844, which duty he performed satisfactorily and continuously from that time forward. He was serving his thirteenth enlistment, the total length of his service being fifty-two years and ten months. He was known and respected by all officers who have been graduated at the Military Academy, and by all other persons connected with it for half a century. The superior character of

his service was recognized by Congress in 1871, when in making a substantial increase in the appropriation for the salary of librarian's assistant it provided that for that year it should be paid to André Freis, and to him alone. In his death the Academy has lost a highly esteemed and valued servant.

His long career presents a spectacle of resolution in endeavor, of fidelity to trust, and of loyalty to friends which may well be emulated by us all.

* * * * *
By order of Col. Ernst:

J. M. CARSON, JR.,
First Lieutenant Fifth Cavalry, Adjutant.

C.

U. S. MILITARY ACADEMY LIBRARY,
West Point, N. Y., September 11, 1894.

To the ADJUTANT, U. S. MILITARY ACADEMY:

SIR: In accordance with your request, dated West Point, N. Y., August 21, 1894, Circular No. 39, I have the honor to submit the following report in regard to the library:

The vacancy in the position of assistant librarian, caused by the death of André Fries, was filled by the appointment of Dr. Otto Plate, PH. D. (Strassburg). He was first employed to assist in classifying the library and to continue the card cataloging of its books on November 21, 1894, and his attainments and fitness for the position were found to be such that he was subsequently appointed by the superintendent as assistant librarian. He has already introduced many modifications in the classification and arrangement of the library that prove to be highly advantageous, and I am satisfied that his appointment is a very commendable one.

The additions to the library from September 1, 1893, to August 31, 1894, have been 953 bound volumes and 250 pamphlets, making a total of 37,015 volumes and 5,578 pamphlets at present on the shelves of the library.

I can not add anything to my report of last year in regard to the great necessity of renovating the library building, except to say that this necessity has become more urgent and pressing. I am of the opinion that the making of the building fireproof and adapting it to a more general use by officers and cadets is a matter of the first importance, and that every effort should be made to secure a favorable consideration of an application for an appropriation for this purpose.

Very respectfully, your obedient servant,

P. S. MICHIE,
Professor of Philosophy, Librarian.

D.

UNITED STATES MILITARY ACADEMY,
SURGEON'S OFFICE, CADET HOSPITAL,
West Point, N. Y., September 11, 1894.

To the ADJUTANT, U. S. MILITARY ACADEMY,
West Point, N. Y.:

SIR: In compliance with the requirements of Circular No. 39, headquarters U. S. Military Academy, August 21, 1894, I have the honor to submit the following report of the work done in the medical department of this station for the year ending June 30, 1894:

The following medical officers have been on duty during the year:

Philip F. Harvey, major and surgeon, July 1, 1893, to June 30, 1894.

C. N. B. Macauley, captain and assistant surgeon, February 5, 1893, to May 10, 1894.

Frederick P. Reynolds, first lieutenant and assistant surgeon, July 1, 1893, to June 30, 1894.

The duties of the medical officers have been divided generally as follows:

The post surgeon has charge of the cadet hospital and cadet sick calls, general administrative affairs of the medical department of the Academy and post, and of such

officers and their families as may call on him for professional advice and treatment.

The first assistant has charge of the soldiers' hospital and such officers and their families as may call on him for treatment.

The second assistant has professional charge of the families of enlisted men and of civilian employes and their families living on the reservation, and of such officers and their families as may call upon him for professional treatment.

The mean strength of the command for the year is shown by the following table:

Officers	53.23
Cadets	275.84
Enlisted men	337.08
Civilians, officers' families, etc	289.00
Civilians, soldiers' families, civilian employes, and their families	476.08
Total	1,431.23

The following table shows the number of cases treated during the year:

Officers	16
Cadets	364
Officers, injuries	1
Officers, diseases	15
Cadets in hospital, injuries	59
Cadets in hospital, diseases	305

Total

380

Cadets treated in quarters and excused from some duty	3,696
Cadets treated in quarters, not excused	924
Enlisted men in hospitals and quarters, injuries	104
Enlisted men in hospital and quarters, diseases	392

Total

5,116

Civilians treated (men, women, and children)

1,493

Total cases treated

6,609

There were performed during the year 212 vaccinations and revaccinations.

Headache, ephemeral fever, eye affections, diseases of the digestive organs, epidemic influenza, and tonsilitis were prevalent forms of sickness requiring treatment in the cadet hospital.

The following number of births occurred during the year:

Males, 8; females, 13; total, 21.

There were no deaths among officers or their families during the year.

There were 2 deaths among the enlisted men, viz:

Michael Graber, private, Army service detachment; age, 44 years; accidental. Cause of death, peritonitis and shock, resulting from being crushed by a rock. Date of death, December 25, 1894.

Andrew Freis, private, Army service detachment; age, 72 years. Cause of death, pulmonary tuberculosis. Date of death, March 8, 1894.

The following deaths occurred among civilians on the post during the year:

(1) King, George, colored; age, 55 years; died from shock and hemorrhage (internal, from ruptured lung), by fall from scaffolding in riding hall; July 29, 1893.

(2) Craney, Robert M.; age, 24 years; cause of death, abscess of middle ear, followed by acute meningitis; August 23, 1893.

(3) Johnston, Ernest V.; age, 4 years; died from fracture of the skull and injury to the brain, resulting from a fall from the stone-wall embankment; April 25, 1894.

(4) Fitch, Lena; age, 3 years; female; diphtheria; July 11, 1893.

(5) Koch, Charles W.; 14 years old; male; cholera infantum; July 13, 1893.

(6) Dillon, Mary; 6 months old; female; cholera infantum; August 11, 1893.

(7) Brewster, Mattie; female; puerperal eclampsia; October 23, 1893.

(8) Bryde, Anna M.; age, 68 years; pneumonia; January 6, 1894.

(9) Rodgers, Ellen; age, 74 years; bronchitis; February 16, 1894.

There were 4,925 prescriptions compounded at the cadet hospital and 2,482 at the soldiers' hospital during the year.

The following points have been particularly dwelt upon by the medical officers in their monthly sanitary reports during the year: July, 1893, Maj. P. F. Harvey, surgeon, U. S. Army, reported that an unusual amount of sickness prevailed amongst the

corps of cadets during the month, ranging from 30 to 60 cases each day. They were mostly of a minor character, such as disorders of digestion, chafed feet, etc.

Report of a case of diphtheria in the family of a private in the Army service, 6th of July, 1893, with death of patient. There was no extension of the disease (Capt. C. N. B. Macauley, assistant surgeon, U. S. Army).

August, 1893, report of number of cadets excused from duty because of sore feet while in attendance at the Columbian Exposition (Maj. P. F. Harvey, surgeon, U. S. Army).

November, 1893, report of disposal of refuse from the cadet mess, with recommendations (Surg. Harvey).

Report of inadequate latrine accommodations at the engineer barracks, also of defective ventilation of building (Assistant Surg. Macauley).

March, 1894, report of methods used in baking meats in the cadet mess (Surg. Harvey).

June, 1894, report of ivy poisoning (Surg. Harvey).

The following sanitary reports were submitted by the medical officers of the post during the year:

September 15, 1893, report inspection of cells of main guardhouse, by Maj. P. F. Harvey, surgeon, U. S. Army, made in compliance with instructions of the superintendent.

September 28, 1893, report of Maj. P. F. Harvey, surgeon, U. S. Army, regarding the heating of the rooms in the cadet barracks.

December 5, 1893, report of Maj. P. F. Harvey, surgeon, U. S. Army, on injuries among the corps of cadets caused by riding, football, and gymnastics during the period from September 1, 1893, to November 30, 1893.

December 4, 1893, report of analysis of water by the chemist of the Surgeon-General's office.

December 9, 1893, report of Maj. P. F. Harvey, surgeon, U. S. Army, supplemental to report of December 5, on injuries received by cadets in riding hall.

The card system of recording the medical history of each cadet has recently been introduced in the hospital, and it is hoped that it will enable the medical department of the post to furnish, with the least possible delay and labor, the complete physical history of a member of the corps of cadets from the date of his admission to the Academy.

A set of hospital steward's quarters is needed near the cadet hospital, as the room in the administrative part of the hospital now occupied by this noncommissioned officer is required for the use of the member of the hospital corps. An estimate of the cost of construction of these quarters has been submitted to the superintendent; also one for general repairs to the soldiers' hospital and of the cadet hospital.

The soldiers' hospital is of recent construction and is well equipped for the treatment of all medical and surgical cases, but the cadet hospital has not been provided with a modern operating room, which is absolutely necessary for the treatment of all cases requiring surgical interference in a hospital, and for this reason the equipment of this hospital can not be considered abreast of the times, so far as this department is concerned; therefore the conversion of the room in the southeast corner of the third floor of the administration building of the hospital into an operating room is urgently advised, and an estimate for the new work required to accomplish this purpose has been submitted.

Recently, and with little expense, a small room in the cadet hospital has been fitted up as a laboratory devoted to bacteriology, pathology, and chemistry, and, as it has already been supplied with an outfit of apparatus, it is believed that this addition to the equipment of the hospital will be of material advantage in the study of the pathological condition of the patients admitted for treatment.

Very respectfully, your obedient servant,

GEO. H. TORNEY,
Major and Surgeon, U. S. Army, Post Surgeon.

E.

HEADQUARTERS U. S. MILITARY ACADEMY,
OFFICE OF TREASURER, QUARTERMASTER AND COMMISSARY OF CADETS,
West Point, N. Y., September 10, 1894.

The ADJUTANT, U. S. MILITARY ACADEMY,
West Point, N. Y.:

SIR: I have the honor to submit the following relative to my duties as treasurer of the U. S. Military Academy, quartermaster and commissary of cadets, for the fiscal year ending June 30, 1894, referring to each duty under its heading.

TREASURER OF THE U. S. MILITARY ACADEMY.

The business of the treasurer's office during the year necessitated the keeping of twenty-eight separate accounts, with—

1. The assistant treasurer of the United States, New York City.
2. The Athletic Association.
3. Balances paid.
4. The barber.
5. Cadet cash.
6. The cadet hospital.
7. The cadet laundry.
8. The cadet quartermaster's department.
9. The cadet subsistence department.
10. The confectioner.
11. The corps of cadets.
12. Damages, ordnance.
13. Dancing.
14. The dentist.
15. Deposits.
16. The Young Men's Christian Association.
17. The Dialectic Society.
18. The equipment fund.
19. Expressage.
20. Gas.
21. Hops and german.
22. Miscellaneous fund.
23. Miscellaneous items.
24. Oaths.
25. The paymaster, U. S. Army.
26. Periodicals.
27. The photographer.
28. Policing barracks.

I have explained in previous reports the necessity for and the character of these accounts.

These accounts were regularly inspected every two months by an officer detailed for that duty, as well as by the special committee of the Board of Visitors.

The financial statement of the treasurer U. S. Military Academy, dated May 15, 1893, which was the last prior to the expiration of the fiscal year 1892-'93, was as follows:

Assets.		Liabilities.	
Assistant treasurer.....	\$34,557.99	Athletic Association.....	\$222.75
Balances paid.....	157.28	Cadet hospital.....	182.97
Cadet cash.....	98.00	Cadet laundry.....	4,280.11
Dentist.....	135.00	Cadet quartermaster's department..	10,333.81
Trust funds or bonds.....	20,000.00	Cadet subsistence department.....	1,054.55
Cash on hand.....	873.65	Corps of cadets.....	11,381.42
		Deposits.....	200.00
		Young Men's Christian Association..	14.94
		Dialectic Society.....	26.85
		Equipment fund.....	28,100.00
		Miscellaneous fund.....	24.52
Total.....	55,821.92	Total.....	55,821.92

The following statement of receipts and disbursements, under each account, exhibits the totals or such between May 15, 1893, the date of the above statement, and May 21, 1894, the date of the last statement prior to the end of the last fiscal year, six bimonthly settlements having been made during the year, namely:

No.	Purpose.	Disbursements.	Receipts.
1	Assistant treasurer.....	\$161,785.15	\$161,977.32
2	Athletic Association.....	1,434.36	1,304.81
3	Balances paid.....	17,225.93	17,989.21
4	Barber.....	594.15	594.15
5	Cadet cash.....	15,178.65	15,201.65
6	Cadet hospital.....	2,527.54	2,344.57
7	Cadet laundry.....	9,894.62	7,190.32
8	Cadet quartermaster's department.....	66,691.53	69,405.77
9	Cadet subsistence department.....	61,138.35	60,843.63
10	Confectioner.....	226.00	226.00
11	Corps of cadets.....	190,883.38	188,775.63
12	Damages, ordnance.....	.35	.35
13	Dancing.....	515.55	515.55
14	Dentist.....	986.00	1,011.00
15	Deposits.....	18,064.03	18,568.03
16	Young Men's Christian Association.....	175.46	175.20
17	Dialectic Society.....	654.65	708.12
18	Equipment fund.....	11,540.00	13,862.00
19	Expressage.....	42.76	42.76
20	Gas.....	1,244.76	1,244.76
21	Hops and Germans.....	1,587.41	1,516.83
22	Miscellaneous fund.....	33.85	23.61
23	Miscellaneous items.....	179.58	179.58
24	Oaths.....	26.50	26.50
25	Paymaster.....	162,145.15	162,145.15
26	Periodicals.....	74.55	74.55
27	Photographer.....	29.00	29.00
28	Policing barracks.....	5,471.87	5,471.87
	Total.....	730,351.13	730,841.92

From this statement it is seen that certain accounts appear and disappear, no balances being carried.

The following statement exhibits the expenditures for purposes designated, during the fiscal year, together with the sums expended during each of the last two preceding years, for the same purposes, viz:

Purpose.	1894.	1893.	1892.
Athletic Association.....	\$1,434.36	\$279.81
Barber.....	594.15	533.55	\$540.25
Confectionery.....	226.00	452.00	316.00
Dentistry.....	986.00	674.00	954.00
Young Men's Christian Association.....	175.46	16.86
Dialectic Society.....	654.65	447.83	445.10
Expressage.....	42.76	32.84	44.20
Gas.....	1,244.76	1,668.36	1,641.17
Oaths.....	26.50	30.15	24.00
Periodicals.....	74.55	73.42	92.00
Photographs.....	29.00	84.00	54.00
Policing barracks.....	5,471.87	5,599.55	5,866.63
Support of cadet hospital.....	2,527.54	1,961.51	1,928.61

The following is the statement of the treasurer at date May 21, 1894, the date of the last settlement of his accounts and inspection thereof prior to the end of the last fiscal year:

Assets.		Liabilities.	
Assistant treasurer	\$34,365.82	Athletic association	\$93.20
Cadet cash	75.00	Cadet laundry	1,575.81
Dentist	110.00	Cadet quartermaster's department..	13,048.05
Hops and Germans	70.58	Cadet subsistence department	759.33
Trust funds (bonds)	20,000.00	Corps of cadets	9,273.67
Cash on hand	1,364.44	Deposits	704.00
		Young Men's Christian Association.	14.68
		Equipment fund	30,422.00
		Dialectic society	80.32
		Miscellaneous fund	14.28
Total	55,985.84	Total	55,985.84

The amount of the equipment fund, as given above, was reduced because of the settlement of the accounts of this year's graduating class by the sum of \$10,512.

The members of the class which graduated this year deposited on entering, each, on an average, \$106.30; when going on furlough they received, each, an average amount of \$103.52; on graduating they received, each, an average of \$240.93; this sum included an average equipment fund of \$194.66, and shows that the average saving during the last two years at the Academy was \$46.27.

It has been the custom for several years past to settle, approximately, the accounts of members of the furlough class to August 15 of their furlough year, and to advance them when they go on furlough such sums as they might be out of debt for use on furlough.

It has become apparent that members of the furlough class exercise during their third-class year undue economy in refraining from supplying themselves with necessary clothing and other articles, to the end that they may have as much money for furlough as possible, expecting to supply themselves on their return from furlough.

This plan throws on the latter half of their course at the Academy expenses which should have been borne during the first half and diminishes the amounts otherwise due them at graduation.

To remedy this matter, I have the honor to recommend that hereafter the accounts of furlough men be settled, approximately, to July 31 of their furlough year, and that they receive only such sums as they may be out of debt on such settlement. This will insure them their August pay for the purpose of part paying for the articles they find it necessary to purchase on their return from furlough and will increase the sums due them at graduation.

The members of this year's furlough class deposited on entering the Academy (average each) \$94.52; they received when going on furlough (average), \$120.05.

The average deposits of candidates or new cadets entering during the year was \$98.57. Two new cadets made no deposits, and they will have to be borne by the treasurer until such time as, under the exercise of the strictest economy, their savings from their pay will cancel their indebtedness.

Ex-Cadet Urtecho, of Nicaragua, is indebted to the Academy in the sum of \$152.34. Since he was admitted to the Academy by act of Congress, I think that Congress should appropriate the sum of his indebtedness and settle the same, and recommend that it be asked to do so.

The plan adopted in settling the accounts of graduates and furlough men prior to the date of their departure is eminently successful.

CADET QUARTERMASTER'S DEPARTMENT.

During the year the following articles of clothing were manufactured, viz:

Dress coats	213	Officers' trousers	36
White jackets	183	Gymnasium trousers	1
Flannel trousers	80	Blouses	465
Civilian vests	3	White trousers	868
Officers' blouses	3	Tennis trousers	16
Overcoats	151	Civilian coats	3
Gray trousers	608	Civilian trousers	3
Riding trousers	80		

There were repaired during the year:

Dress coats.....	320	Civilian vests.....	179
Gray trousers.....	1,140	Gloves.....	340
Civilian coats.....	179	Blouses.....	694
Socks.....	1,498	Riding trousers.....	58
Chevrans made and sewed on.....	702	Civilian trousers.....	179
Overcoats.....	282	Shoes.....	1,372
White trousers.....	1,266		

The new uniform shoes give, as far as I can learn, the best satisfaction.

The floors of the halls in the cadet quartermaster's department building are made of concrete and cement. The floor in the main hall is constantly requiring repairs. The one on the third floor is in bad condition, as is also the one on the ground floor.

I request permission to repair with cement the first or ground-floor hall, to place ordinary tiling or stone flagging on the floor of third-story hall, and to cover the main hall with marble or tile, at a cost not to exceed 75 cents per square foot, and to defray such cost from the cadet quartermaster's department fund, the one by which the portion of the building containing these halls was erected.

The fund, in cash, goods, and accounts due, on June 30, 1893, amounted to \$42,775.98. On June 30, 1894, it amounted to \$43,130.88, an increase of \$350.90 during the year as against a loss of \$1,013.48 during the year previous.

It is impossible to adopt any percentage on the business of the department, such that the profits will exactly meet the expenses, and therefore the diminution or increase of the fund in any year to a slight extent gives no concern, as it is a matter depending entirely upon the business of the department, and one which rights itself in a series of years.

I recommend that there be no change at present in the percentages charged, which are 4 per cent on all articles other than clothing, and 10 per cent on clothing; all on face of net invoice.

CADET SUBSISTENCE DEPARTMENT.

The condition and working of the cadets' mess is very satisfactory.

The average daily cost of subsistence per cadet during the year was a fraction less than 52 cents, and it was slightly less than the year previous.

The character and quality of the food served was the best obtainable, while the variety was as great as it was possible to obtain under the expenditure noted, an expenditure as great as the pay of a cadet will admit. This charge for subsistence would have been still less had it not been for the extraordinary expense incurred in maintaining a training table for candidates for the foot-ball team and for the entertainment of visiting teams.

I have the honor to recommend that no training table may be hereafter authorized. Besides the extra expense, such a table imposes additional obligations upon the mess employes, makes a distinction in the subsistence of the cadets, subjects the commissary of cadets to being requested by the "coach" to do, or to refrain from doing, certain things in connection with the training table, and, as it has heretofore appeared, all to no purpose. Should teams from civilian organizations visit West Point, I earnestly request that the practice of entertaining them at the cadets' mess be no longer continued. This will work no hardship on them, as they can obtain their meals at the hotels in this vicinity or at Mr. Denton's restaurant.

It may be said that the presence of visiting teams may be secured for a less sum of money if they are entertained at the cadets' mess. Possibly that may be the case, but it certainly can not be considered just that the mess should bear an expense chargeable to an association provided with funds.

CADET LAUNDRY.

The laundry building and machinery are in good condition. The washing turned out during the year, especially in reference to white trousers, has not been satisfactory.

In my last annual report I showed that the number of articles laundered during the fiscal year 1892-'93 exceeded the number laundered during the previous fiscal year by 128,746 pieces. During the fiscal year ending June 30 last the work of the laundry was increased over the work of 1892-'93 by 75,766 pieces, and this, too, exclusive of the work done for the cadet hospital.

Seven thousand nine hundred and sixty pieces were washed for the cadet hospital during the last fiscal year as against 4,082 the year previous.

The average number of cadets present during the last fiscal year was, in round numbers, 23 greater than during the fiscal year of 1892-'93, but such increase in the corps will not account for the increase in the number of pieces sent to the laundry.

Such increase, without endeavoring to account for it, has taxed the laundry to its utmost capacity under the former organization of its forces, and although additional labor, such as is obtainable in this section, has been employed, has prevented satisfactory work being turned out.

Remedial measures, with which you are acquainted, have been taken, and it is confidently expected that there will be an increased weekly improvement in the work of the laundry.

A room in which soiled clothing can be received, assorted, and stored until required for the washing machines is greatly needed at the laundry. This matter will be brought to your notice as soon as it has been maturely determined as to the size and location of said room.

Respectfully submitted.

WM. F. SPURGIN,
*Captain Twenty-first Infantry, Treasurer U. S. Military Academy,
Quartermaster and Commissary of Cadets.*

F.

WEST POINT, N. Y., *August 28, 1894.*

The ADJUTANT, U. S. MILITARY ACADEMY:

SIR: In accordance with instructions I have the honor to submit the following report of the principal operations in the department of ordnance and gunnery at the U. S. Military Academy during the fiscal year ending June 30, 1894:

LABORATORY.

The work at laboratory includes the painting and caring for the three light batteries and the machine and rapid-fire guns, and also the siege and seacoast batteries and Battery Knox.

The carriages of all these batteries have been painted and the guns varnished and lacquered. The fireworks for the graduating and 4th of July exercises have been prepared. Numerous repairs have been made to the different batteries involving considerable work in the machine shop, and repairs have also been made to the cadet equipments and to the foils, fencing muskets, and broadswords used in the gymnasium.

Models of all the service projectiles, full size in wood, have been completed and lettered for use. A new wood floor has been laid in the barrack room, a new partition put up, and new marble washstand put in. A new wood floor has also been laid in the upper room of the middle building, and a concreted floor in the lower store room. A supply of water has been introduced into the laboratory yard with a new hydrant. The old shingle roof on equipment shed has been replaced by a tin roof and a new door put on the middle building.

A Pratt & Whitney lathe, 16-inch, and a pillar-shaper, for which appropriations were made by the last Congress, have been placed in position in the machine shop, with new pulleys and belting, and the shop is now well fitted for any ordinary work. Drawings for the new text book in Ordnance and Gunnery are in progress, and some of the plates for the book have been received from the Moss Engraving Company, New York. The work on this book will probably be completed during the current fiscal year. Drawings for the section room have also been made of the more complicated ordnance material studied by cadets. This work will be continued till it is complete.

The trophy guns at Trophy Point have been secured to their skids so as to prevent disarrangement, and the skids themselves mounted on stone foundations laid in cement. The same has been done with the large Mexican mortars. This work will be continued until finished.

Models have been made in wood of the boring and rifling tools used in gun manufacture, and sample boards of cartridges, fuses, primers, etc., have been prepared illustrating the different steps in the manufacture of these various articles.

FIRING GROUNDS.

All the wires at the firing grounds have been rearranged and systematized, and drawings made showing all the connections. New targets have been erected for the small arms with a cast-iron bullet-proof shield mounted on a stone foundation. The stone wall around the firing grounds has been relaid and completed. Four new

Springfield rifles, prepared especially at the Springfield Armory for taking pressures, and furnished with pressure gauges, have been received; also a new firing rest. Each ballistic instrument now has its own gun, and no delay is necessary in firing, and the facilities for taking velocities and pressures are better than ever before, affording an opportunity to each cadet to become thoroughly acquainted with the practical methods of working ballistic instruments.

The property belonging to the ordnance museum which was shipped to the Chicago exposition has been returned in good order.

ADDITION TO ARMAMENT.

During the year there have been received one 8-inch steel breech-loading rifle, with its spare parts and appliances, for repair; and also an 8-inch barbette carriage, complete, for this gun. As the appropriation for the platform was not sufficient to build it, the carriage was mounted temporarily on a wood platform, from which it can be readily moved into position as soon as its platform is ready. Work upon this platform will be begun at an early day.

Three new front-pintle barbette carriages for 8-inch converted rifles have also been received and will replace the old centre-pintle carriages of obsolete pattern as soon as the platforms for them are ready.

The Maxim automatic machine gun and the Nordenfelt rapid-fire gun, mentioned in the last report, have been received. The Maxim gun, upon test, did not work satisfactorily, and the company is now replacing some of the parts by new ones.

SMALL ARMS AND AMMUNITION.

Two new .30-caliber rifles have been supplied by the Ordnance Department for the instruction of cadets, and the class of 1894 were instructed in the working, dismounting, and assembling of the gun, and velocities were taken with it at the instrument house.

MODELS.

The various models of instruments and ordnance material which have been made at the laboratory have already been spoken of. The following models of service guns made of steel have been received during the year:

- One 3.60 mortar, one-tenth size.
- One 3.60 mortar, breech mechanism, one-half size.
- One 3.20 field gun, one-tenth size.
- One 3.20 field gun, breech mechanism, one-half size.
- One 5-inch siege gun, complete, one-tenth size.
- One 10-inch seacoast gun, complete, one-tenth size.
- One 12-inch steel mortar, complete, one-tenth size.

These models were made at the Watervliet arsenal, and are intended to be used for purposes of instruction in the section room and also for the museum. A new appropriation has been obtained for completing the models of all service guns, and also for models of their carriages.

RECOMMENDATIONS.

I have the honor to recommend that the senior assistant instructor of ordnance and gunnery receive the pay of assistant professor, and that a provision to this effect be recommended for insertion in the next Military Academy bill. The duties of senior assistant instructor in this department are exactly the same as those of the corresponding officer in other departments. The course extends over the same period of time, and in addition to his academic duties, this officer has others connected with the care and preservation of ordnance property at the post which do not fall to the assistant professors in other departments. In addition to this, his rank is generally such as would entitle him to this position and pay were he serving in any other department of instruction at the Academy.

I would also recommend that steps be taken to procure a sample arm and its ammunition from each of the leading European powers, with a description of its mechanism, for the instruction of cadets and for the museum.

Very respectfully, your obedient servant,

LAWRENCE L. BRUFF,
Captain Ordnance Department, U. S. Army,
Instructor of Ordnance and Gunnery.

G.

Extract from the report of the superintendent U. S. Military Academy to the Adjutant-General of the Army, upon the subject of athletic sports as practiced at the Academy.

HEADQUARTERS U. S. MILITARY ACADEMY,
West Point, N. Y., December 12, 1893.

* * * * *

It may be assumed at the outset that the physical development of cadets is sufficiently provided for in the regular curriculum, or, if not, that improvements in that direction should be made in a more systematic way than by the mere encouragement of voluntary athletic sports. If needed at all, they should be made to apply to all cadets. Football is to be considered as a recreation and a sport, and not as a means of instruction. The important questions concerning it are: (1) What are its effects upon scholarship? (2) What are its effects upon discipline? (3) Is it unduly dangerous to life and limb? (4) Is it too expensive? (5) Should the annual match game between the cadets and the cadet midshipmen be permitted?

I.—EFFECT UPON SCHOLARSHIP.

Any innocent amusement which during the hours set aside for recreation will take the mind of the cadet absolutely away from his books will benefit him. He will return to his studies refreshed and invigorated, and the net result of his day's work will be greater than if his entire time had been devoted to them. Football accomplishes this object more completely than any other known game. Its effects in that respect are not confined to the actual players, but extend to practically the entire corps of cadets. From one-quarter to two-thirds of the corps may be seen looking on or taking part in the daily practice games, while with all it is a subject of absorbing interest and conversation, and at the match games on Saturday afternoons nearly the entire corps are present, exhibiting every sign of the most enthusiastic enjoyment. Is the excitement too great? Does it extend beyond the hours of recreation and interfere with studies? If it does, the effect should be noticeable among the 31 cadets constituting the first and second teams and supernumeraries. These have been in regular training; have devoted all their spare moments since the 1st of September to practice, and have undoubtedly given more thought to the game than any other cadets. To obtain specific information with reference to their progress in studies, I addressed to the members of the academic board a circular letter of which a copy is inclosed, marked A. I invited them at the same time to express their views upon the subject of athletics in general as now practiced at this place. Copies of their replies are inclosed, marked B, C, D, E, F, G, H, I, K, L, and M. Their perusal shows wide differences of opinion.

In the first class are 6 players. Of these—

(1) *Cadet A.*—Lost 5 places in engineering; gained 6 places in ordnance and gunnery; gained 6 places in history; lost 19 places in law.

(2) *Cadet Bn.*—Held his own in engineering; lost 1 place in ordnance and gunnery; held his own in history; held his own in law.

(3) *Cadet Be.*—Gained 2 places in engineering; gained 15 places in ordnance and gunnery; gained 6 places in history; gained 7 places in law.

(4) *Cadet C.*—Lost 13 places in engineering; lost 4 places in ordnance and gunnery; lost 12 places in history; lost 20 places in law.

(5) *Cadet H.*—Lost 2 places in engineering; gained 12 places in ordnance and gunnery; held his own in history; gained 10 places in law.

(6) *Cadet R.*—Gained 2 places in engineering; gained 7 places in ordnance and gunnery; held his own in history; lost 10 places in law.

In the case of *Cadet Bn.* there was not much room for further improvement for he was already at or near the head of his class, being first in general merit at the last June examination. He held his own. Of the others, two showed decided improvement, one held his own, one showed loss in two subjects and gain in two, with a preponderance in loss, and one showed decided loss in all. In this class upon the whole was more gain than loss.

In the second class are 9 players. Of these—

(7) *Cadet A.*—Lost 3 places in philosophy; gained one place in chemistry.

(8) *Cadet B.*—Gained 1 place in philosophy; lost 6 places in chemistry.

(9) *Cadet C.*—Lost 9 places in philosophy; lost 30 places in chemistry.

(10) *Cadet D.*—Stood stationary (foot) in philosophy; gained 1 place in chemistry.

(11) *Cadet H.*—Gained 11 places in philosophy; gained 19 places in chemistry.

(12) *Cadet Sk.*—Gained 4 places in philosophy; lost 15 places in chemistry.

(13) *Cadet Sr.*—Lost 6 places in philosophy; gained 10 places in chemistry.

(14) *Cadet Sy.*—Lost 6 places in philosophy; lost 22 places in chemistry.

(15) *Cadet St.*—Held his own (second in his class) in philosophy; gained 7 places in chemistry.

In this class two cadets lost places in both branches of study. Both of them had been over last year's course twice, having been turned back in June, 1892. As is usual in such cases a decided fall in class standing occurred after entering upon a new course of studies, and would have occurred independently of football. All of the others gained in one branch of study while losing in the other, or held their own in one while gaining in the other, or gained in both. Among them is Cadet St., who stands second in his class in philosophy and who held his own. In this class the gain in scholarship exceeded the loss.

In the third class are 12 players. Of these—

(16) *Cadet By.*—Gained 30 places in mathematics; gained 7 places in modern languages.

(17) *Cadet Bt.*—Lost 9 places in mathematics; lost 17 places in modern languages.

(18) *Cadet Dm.*—Lost 8 places in mathematics; gained 23 places in modern languages.

(19) *Cadet Hy.*—Gained 2 places in mathematics; gained 11 places in modern languages.

(20) *Cadet K.*—Lost 11 places in mathematics; lost 25 places in modern languages.

(21) *Cadet L.*—Lost 5 places in mathematics; lost 7 places in modern languages.

(22) *Cadet M.*—Gained 2 places in mathematics; gained 6 places in modern languages.

(23) *Cadet N.*—Gained 1 place in mathematics; lost 7 places in modern languages.

(24) *Cadet R.*—Lost 8 places in mathematics; lost 2 places in modern languages.

(25) *Cadet Sn.*—Lost 13 places in mathematics; lost 6 places in modern languages.

(26) *Cadet Sy.*—Lost 8 places in mathematics; gained 4 places in modern languages.

(27) *Cadet W.*—Lost 35 places in mathematics; gained 6 places in modern languages.

In this class three gained in both branches of study, five lost in both branches, and four gained in one while losing in the other. Among them was Cadet Sn., who stood first in general merit at the last June examination. He lost standing. In this class the loss exceeded the gain.

In the fourth class are four players. As this class had not been arranged according to merit at the beginning of the term, there are no figures for determining the effect upon them except in the case of Cadet C., who, in the opinion of the professor, will be first in his class in mathematics, and who has the fourth best mark in English studies.

The figures given are of course not to be taken in any individual case as a direct measurement of the effects of football. The greater or less aptitude of the student for the new studies taken up in September always causes many variations in class standing. But taken as a whole they indicate that the general effect of the game upon the scholarship of those taking the most active part in it is not injurious. There are exceptions, but that is the general result. If not injurious to these, then the general net result to the entire corps of cadets must be beneficial, if my assumption be correct that complete distraction from books during the hours of recreation is beneficial.

This does not include the subsequent effect of the match game at the end of the season.

II.—EFFECT UPON DISCIPLINE.

There are no figures which can be used as an indication of the effect upon discipline as in the case of scholarship, but there are some considerations from which certain conclusions may be drawn. The discipline of the corps has been good and remains good. With very few exceptions the offenses are of a minor character, due to boyish heedlessness. I can not see that they are any more or less in number than they were formerly. But there are two offenses of not uncommon occurrence which have for many years defied the efforts of the authorities to eradicate them—smoking, and hazing new cadets.

At one time even the attempt to prevent smoking was abandoned, and for many years the practice was permitted. It is now forbidden, but the difficulty of enforcing the regulation is as great as ever. The training rules which the football players adopt while in training prohibit smoking. This, by demonstrating the value of the regulation, can not but aid in its enforcement.

Hazing new cadets has been the object of severe repressive measures for many years. Time and again the authorities have flattered themselves that it was eradicated, but new instances have not been slow to follow. Among the cadets who went to Annapolis this year were four members of the fourth class. They had been

selected by the cadets themselves. The search among the new cadets for their superior physical qualities which this implies can not but aid in reducing the tendency to hazing.

At first glance it might seem that if any special privileges were granted to football players it would be favoritism which would be resented by other cadets and would be injurious to discipline. It must be remembered that the players are selected by the cadets themselves, and not by the authorities. It is probable that many distinctions might be made without causing the nonplayers to consider the players more favored than themselves. As a matter of fact, however, the only distinctions have been that the players were provided with a special training table in the mess hall, were excused from marching to supper, in order to take that meal a little later than the others, and were permitted to go to Annapolis.

The special training table constituted a daily object lesson in the effect of sober living upon the human frame, which can hardly fail to be of much practical value.

Dress parades for the entire battalion were omitted during November. That ceremony at that season loses much of its practical value on account of the cold, since overcoats and benumbed fingers are not favorable to precision.

In all other respects the full programme of military and academic duty has been carried out by all.

The officers of the academy have, as a rule, taken a lively interest in the game, and have contributed largely by voluntary subscriptions toward paying its expenses. This has produced a kindlier feeling by the cadets toward their officers which I think is favorable to discipline.

The minor punishments in the way of deprivation of recreation hours becomes more potent as the value of those hours in the mind of the cadet is increased. The surplus animal spirits of the young men finding a vent in football are much less likely to find it in mischievous pranks.

Upon the whole I conclude that the game is an aid to discipline.

III.—DANGER TO LIFE AND LIMB.

The post surgeon has prepared at my request a statement of the casualties which occurred during the months of September, October, and November, in football, riding and gymnastics, which is inclosed marked N. Fifty-two casualties occurred in football, of which 9 were serious; 40 casualties occurred in riding, of which 2 were serious; 9 occurred in gymnastics, of which 1 was serious. Ultimate recovery is expected in all cases. During November 11 casualties occurred in football, and 34 in riding. A new class began riding in November. Among players elsewhere a number of fatal accidents during the same period were reported in the public press. With its present methods and rules the game appears to be dangerous to life and limb, but probably not much more so than riding, and much less so than coasting in winter or swimming in summer. This feature has attracted the attention of observers elsewhere, and the sentiment appears to be general that the methods of play must be changed. It is probable that the game will be less objectionable in that respect hereafter than it is now. It is perhaps unnecessary to state that the brutality which has been reported to have occurred at some places does not exist here. As played here the game is rough, with an element of danger, but not brutal.

IV.—EXPENSE.

The total amount expended this year in athletics was \$4,219.71, of which \$3,623.70 was devoted to football, including the cost of the training table, \$506.30 over and above the cost of ordinary board. Of the football expenses the cadets paid \$1,438.40, including the training table, and the remaining \$2,185.30 was contributed by the Army Officers' Athletic Association, or by subscriptions of the officers and professors stationed here. This latter subscription fell heavily upon some. Clearly cadets can not afford to play football without some outside assistance. There appears, however, to be no difficulty in procuring such sums of money as may be necessary.

V.—SHOULD THE ANNUAL MATCH GAME BETWEEN THE TWO NATIONAL ACADEMIES BE PERMITTED?

What has been said of the effects of football upon discipline and scholarship refers to the general effect during the three months prior to the match, and not to the match itself. The latter has undoubtedly for some days a bad influence upon both. The excitement attending it exceeds all reasonable limit. Whether the injurious effects at this time are sufficient to counterbalance the good effects obtained previously is somewhat a matter of speculation. I am inclined to think that thus far they have not been, but I should expect the excitement over this match, if it should

be regularly established, to increase from year to year, and eventually to result in unmistakable injury.

The argument in favor of the match is that some kind of match game with a foreign team at the end of the season is considered necessary to keep up the interest in the game. The season's work (or play) is the preparation for a contest. It is quite impossible for the cadets to compete upon equal terms with the students of other institutions such as Harvard, Yale, or Princeton (though they have played this year with teams from two of them), for the reason that those students give much more time to practice than the cadets can give.

This points to the Naval Academy as their natural and only real competitor. To stop the annual match will be to remove much of the vitality from a game which plays an important and, as I believe, useful part in the life of the cadet.

The four matches which have been played have engendered an intense rivalry, not without a shade of bitterness, which does not tend toward improving the relations between the two services.

The match constitutes a distinct and, in my judgment, dangerous departure from the traditions of this institution. The corps of cadets are required to accomplish more work in a given time than any other set of young men anywhere. They accomplish this without extraordinary exertion, because of the regularity of their lives and the continuity of their application. Absence from the restraints of West Point, brief though it be, renders them irksome for sometime thereafter. For this reason it has always been the rule to grant very few leaves of absence. With the exception of the furlough at the end of the second year they are never given, except in cases of emergency, and to a few specially meritorious cadets at Christmas as a reward for exemplary conduct. This system receives a violent shock from the match game. While 30 cadets are allowed to go to Annapolis to play football, it will not be easy to say to the cadet whose mother is ill or whose sister is to be married that the rules of the institution forbid his absence for even a day.

CONCLUSIONS.

My conclusions are that football as controlled here has been beneficial to scholarship and an aid to discipline, and should receive a proper degree of encouragement; but that the match game with the Naval Academy has done much to undo these good results, and will, if continued, entirely undo them, and being objectionable otherwise, should not be permitted to recur.

H.

WEST POINT, N. Y., *September 11, 1894.*

The ADJUTANT, U. S. MILITARY ACADEMY,
West Point, N. Y.:

SIR: Complying with the requirements of circular No. 39, headquarters U. S. Military Academy, West Point, N. Y., August 21, 1894, I have the honor to submit the following report concerning the operations of the department of practical military engineering for the year ending August 31, 1894:

INSTRUCTION OF CADETS.

The first, second, and third classes were under instruction during the year. The ground covered did not differ materially from that of the preceding year, as set forth in my report of September 11, 1893, with the exception that no interruption occurred similar to that due to the World's Fair.

COMPANY E, BATTALION OF ENGINEERS.

This company has furnished throughout the year a daily guard detail of from 10 to 12 men; has kept its barrack and barrack ground in repair and police; cultivated its garden; kept the 2 pontoon trains and the cadet boats in repair; completed 2 new pontoon boats and partially finished 3 others; and has kept the seacoast, siege, and mortar batteries, with Fort Clinton and Battery Knox, in order. It has assisted in the instruction of the cadets in practical military engineering, preparing the bridge and siege material.

A steam-heating plant has been installed in the barrack, with increased comfort and convenience to the men. The root house to the west of the barrack has been

entirely rebuilt and the one to the south adapted for use as an oil house. A new coal house to store fuel for the steam-heating plant is about completed and will result in saving the men much labor.

Estimates have been submitted for repairing the wash room and the latrine belonging to the barrack.

During May and June, 1894, the company completed the prescribed course of target practice, making a general figure of merit of 44.36, and qualifying 2 sharpshooters, 19 marksmen, and 26 first-class men out of a total of 84 classified.

Considering the interruption arising from the cadet reconnaissance in May, and the examination in June, the period allotted for the target season here is too short, and the company has no fair opportunity for practice.

Attention is invited to the accompanying table (A) which contains a résumé of the company's duties by months.

Acceptable recruits have not offered themselves as freely as last year, and the company is now 5 men below its authorized strength. Two desertions, both to the undoubted advantage of the company, occurred during the year.

The World's Fair detail of 2 noncommissioned officers and 1 first-class private returned to duty with the company on November 14, 1893.

The detail for submarine mining at Willets Point, has resulted in the instruction of 7 sergeants and 9 corporals during the year.

The physical condition of the men has been excellent and the discipline of the company good. The effects of the enlistment of a large proportion of young men for a short term is much the same as in other organizations. But few serious infractions of discipline have occurred.

For the purpose of taking part in the Memorial Day parade, on May 29, 1894, a detachment of 3 officers and 74 men went to New York on the night boat, returning the night after. The conduct of the men was exemplary in all respects.

During the labor troubles in July, 1894, the company was ready to move at an hour's notice, with practically its full strength.

WATER SUPPLY AND PIPE LINE.

The water was turned on from Round Pond on June 27, 1894, the gauge then standing at 18 feet, corresponding to a full pond. The draft has since been steady, no rain of any benefit to the water supply having fallen since early in June. The stage of the water is about 10 feet at this time. If the precipitation for the next year proves to be much below the normal, there will probably be a scarcity next summer and fall.

The pipe line has rendered good service. An important leak was discovered and stopped near the old lime kiln in June, 1894. Another important leak has been discovered near the powder magazine and reported to the post quartermaster for repair. The brush wood was cut along the Round Pond pipe line last November, and the culverts and retaining walls repaired. A portion of the Cro' Nest Pond pipe line was taken up and relaid in a safer position.

The upstream face of the Cro' Nest Dam has recently been repointed.

NEW RESERVOIR.

A special report upon the question of a water supply for the post was submitted by me in November last. Of the projects submitted, the site at Fort Putnam Swamp was selected. Work on changing the road was begun in April and has since been completed. The new road is about 3,100 feet long and has a maximum grade of 7.5 per cent. The timber and brushwood have been cleared from the reservoir site, the earth excavation for the main dam completed, a channel dug to prevent floods from interfering with the work, and a ditch to drain the swamp; a new quarry is being opened, and a site prepared for sheds and shops; bids have been opened for tools and supplies, and the preparation of the rock for receiving the bottom and ends of the main dam is well under way. Present indications are to the effect that the cost of the main dam will probably somewhat exceed the original estimate.

GUN PLATFORMS.

The necessary appropriations for this work having become available, preparations have been made for proceeding with the construction as soon as the guns are dismounted. I have assigned Lieut. Patrick to the special charge of this work, and Lieut. Bromwell to assist me at the new reservoir.

NEW ACADEMIC BUILDING.

Good progress has been made on this building during the past year, but not enough to make up for the time previously lost. It is hoped that by January 1, 1895, the entire building may be occupied.

THE BATTLE MONUMENT.

This work has also advanced rapidly during the past year, and its principal features are completed. Questions have arisen concerning the figure of "Victory," and certain ornamentation around the base, which may considerably delay the final completion.

Very respectfully, your obedient servant,

JAS. L. LUSK,
Captain, Corps of Engineers, Instructor Practical Military Engineering.

	1893.				1894.							
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.
Average strength of company.....	100	100	100	101	99	99	99	100	99	99	97	95
Average strength of guard detail.....	10	10	10	11	12	12	12	12	12	12	12	12
Fatigue days.....	26	26	25	25	26	24	27	25	26	26	25	27
Infantry drills.....	13	12	4	4	4	4	5	4	13		8	13
Signaling drills.....	13	12	4	4	4	4	5	4	2		8	13
Engineering drills.....	8	9	3	4	5	4	4	4	3	2	9	9
Gymnasium drills.....	13	12	7	8	9	8	9	8	3	2		
Practice marches.....			1								1	
Average attendance at drills.....	40	36	41	38	47	39	41	42	44	52	49	46
Target practice days.....									23	21		
Post school days.....			20	20	22	20	22	21				
Average attendance at school.....			25	26	26	25	27	24				

I.

U. S. MILITARY ACADEMY, QUARTERMASTER'S OFFICE,
West Point, N. Y., September 12, 1894.

The ADJUTANT U. S. MILITARY ACADEMY,
West Point, N. Y.:

SIR: In compliance with instructions contained in Circular No. 39, headquarters U. S. Military Academy, dated August 21, 1894, I have the honor to submit herewith the following report of the operations of the quartermaster's department, at West Point, N. Y., for the fiscal year ending June 30, 1894:

QUARTERMASTER'S DEPARTMENT, U. S. ARMY.

The duties pertaining to this department embrace procuring fuel, forage, and straw for public animals and for officers' private horses; stoves for heating part of the officers' and enlisted men's quarters; means of transportation, by land and water, for troops, animals, and public property; in furnishing the animals required for artillery, cavalry, and draft purposes, and in procuring and distributing clothing and equipage for the command. The following appropriations have been drawn upon, either for funds or supplies, to enable me to meet the demands made upon the department:]

APPROPRIATION FOR REGULAR SUPPLIES.

No allotment was made, but funds were supplied to meet necessary demands, and were expended in the payment, under formal contracts, for fuel, forage, and straw, and stores required for sale to officers and issue.

APPROPRIATION FOR INCIDENTAL EXPENSES.

The sum of \$10,500 was allotted for the fiscal year. Of this amount \$9,739.81 were expended in payment for services rendered by civilian clerks and extra duty by enlisted men; \$760.17 were held to meet outstanding debts, and 2 cents surplus to be deposited to the credit of the Treasurer of the United States.

APPROPRIATION FOR ARMY TRANSPORTATION.

No allotment was made, but funds were supplied as necessity demanded, and expended in the payment of enlisted men on extra duty as mechanics and teamsters; transportation of funds, authorized purchases of quartermaster's stores, 5 horses, and traveling expenses of quartermaster agent. The sum of \$391.15 was held to meet outstanding indebtedness, and 5 cents to be deposited as surplus. The department was, on approved requisitions and quarterly estimates, supplied with wagons, harness, materials for their repair, and sundry other stores needed.

During the fiscal year 163,476 pounds of freight have been shipped, 47,318 pounds by railroad, 116,158 pounds by water, and transportation furnished by rail and water for 115 persons, and 1 horse.

APPROPRIATION FOR CLOTHING AND EQUIPAGE.

There was no allotment under this head. The sum of \$8 was supplied for inserting new linings in capes of overcoats of enlisted men; \$98.83 were received from sales to officers, and duly deposited as required by law.

APPROPRIATION FOR CAVALRY AND ARTILLERY HORSES.

The sum of \$16 was received from sale at public auction of one condemned horse, and the proceeds were deposited.

APPROPRIATION FOR SHOOTING GALLERIES AND RANGES.

Sixty-nine dollars and forty cents were supplied for repairs to the rifle range at the post in the disbursement of which there was a saving of 29 cents, which will be deposited. (For statement showing receipts, disbursements, etc., see appendix marked A.)

Formal contracts for regular supplies were entered into as follows:

David S. Wells, June 6, 1893, 1,900 tons anthracite coal; William Lewis, June 15, 1893, 150 cords hard wood; John Hamilton, October 11, 1893, 420 tons hay; William E. Dante, October 11, 1893, 680,000 pounds oats; John Moonan, October 13, 1893, 20 tons shorts, 47½ tons rye straw; Charles L. Rickerson, October 14, 1893, 10 tons midglings, 47½ tons rye straw.

DETACHMENT OF ARMY SERVICE MEN, QUARTERMASTER'S DEPARTMENT.

The enlisted men of this detachment have generally performed the various duties with which they have been charged in a satisfactory manner.

The recommendation made in my last annual report that the number of draft animals be increased from 37, now authorized, to 45, is renewed; the latter number being actually necessary to meet the increased demands.

QUARTERMASTER'S DEPARTMENT, U. S. MILITARY ACADEMY.

My duties in this branch are defined in paragraph 12, of the U. S. Military Academy regulations. The following table exhibits the receipt and disposition of public funds in my possession during the year:

Table showing the receipt and the disposition of funds under appropriations for the support of the U. S. Military Academy, during 1893-'94.

	Current and ordinary expenses.	Miscellaneous items and incidental expenses.	Buildings and grounds.	New gymnasium.	New academic building.	Total.
On hand July 1, 1893:						
Appropriation 1889.....				\$12,241.66	\$11,153.93	\$23,395.59
Appropriation 1892.....	\$971.64	\$97.58				1,069.22
Appropriation 1893.....	11,772.83	2,945.85	\$25,318.14			40,036.82
Deficiency:						
Appropriation 1893.....	200.00					200.00
Appropriation 1893-'94.....	600.00		2,470.92			3,070.92
Received from Treasurer of United States:						
Appropriation 1889.....					135,000.00	135,000.00
Appropriation 1893.....			46,496.00			46,496.00
Refundment:						
Appropriation 1893.....	10.00					10.00
Received from Treasurer of United States:						
Appropriation 1894.....	78,387.85	25,737.50	76,000.00			180,125.35
Total.....	91,942.32	28,780.93	150,285.06	12,241.66	146,153.93	429,403.90
Disbursed:						
Appropriation 1889.....				5,149.69	122,469.35	127,619.04
Appropriation 1892.....	19.58	7.50				27.08
Appropriation 1893.....	6,090.87	2,805.05	67,718.74			76,614.66
Deficiency:						
Appropriation 1893.....	200.00					200.00
Appropriation 1893-'94.....	357.00		1,217.62			1,574.62
Appropriation 1894.....	64,000.29	23,003.83	43,557.06			130,561.18
Deposited:						
Appropriation 1893.....	10.00					10.00
On hand June 30, 1894:						
Appropriation 1889.....				7,091.97	23,634.58	30,776.55
Appropriation 1892.....	952.06	90.08				1,042.14
Appropriation 1893.....	5,681.96	140.80	4,095.40			9,918.16
Appropriation 1893-'94.....	243.00		1,253.30			1,496.30
Appropriation 1894.....	14,387.56	2,733.67	32,442.94			49,564.17
Total.....	91,942.32	28,780.93	150,285.06	12,241.66	146,153.93	429,403.90

Contracts entered into by me during the year, and those made in previous years and remaining in force this fiscal year, were as follows:

- (1) J. E. & A. L. Pennock, May 18, 1891, new academic building.
 - (2) Cassidy & Son Manufacturing Company, October 27, 1892, gas pendants, cadet barracks.
 - (3) Jeremiah J. Kennedy, February 22, 1893, enlarging the gas plant.
 - (4) William McMeekin, April 24, 1893, new sinks and bath rooms, cadet barracks.
 - (5) Westmoreland Coal Company, June 24, 1893, 1,200 tons gas coal.
 - (6) David S. Wells, June 24, 1893, 75 tons camel gas coal.
 - (7) A. S. Swords & Co., June 24, 1893, 2,200 tons anthracite egg coal, 800 tons anthracite stove coal, 300 tons anthracite chestnut coal.
 - (8) William McMeekin, July 7, 1893, boiler house and boiler, complete.
 - (9) Thomas M. Campbell, September 11, 1893, steam-heating apparatus in quarters No. 35.
 - (10) William McMeekin, September 11, 1893, 2-story addition to quarters No. 35.
 - (11) Edward Engelskircher, September 11, 1893, repairs, married enlisted men's quarters.
 - (12) A. C. Smith, October 13, 1893, boiler and steam-heating, engineer barracks.
 - (13) William McMeekin, October 26, 1893, one set of officers' quarters.
 - (14) A. H. Catlin, October 27, 1893, steam-heating plant in quarters No. 27.
 - (15) Thomas J. Gilroy, April 2, 1894, one set hospital stewards' quarters.
 - (16) Thomas J. Gilroy, June 26, 1894, unmarried officers' quarters.
- Nos. 1, 13, 15, and 16 were not completed at the close of the year.

U. S. MILITARY ACADEMY GAS WORKS.

During the fiscal year the receipts and expenditures pertaining to the plant has been accounted for in the special contingent fund, which appears in this report. The work of enlarging and increasing the gas plant, under the contract with Mr. J. J. Kennedy, dated February 22, 1893, was completed during the year, and the works are now in excellent condition and capable of supplying good gas ample to meet all requirements.

SPECIAL CONTINGENT FUND, U. S. MILITARY ACADEMY.

This fund is derived from the rent of certain buildings at this post; from sales of gas to officers, cadets, and civilians residing here; sales of coke and coal tar to non-residents of the post, etc.

The receipts and expenditures on account of this fund for the fiscal year ending June 30, 1894, were as follows:

	Gas works.	Rents.	Total.
On hand July 1, 1893.....		\$1,298.97	\$1,298.97
Received.....	\$6,867.21	3,116.24	9,983.45
Total.....	6,867.21	4,415.21	11,282.42
Disbursed.....	4,545.16	4,281.30	8,826.46
Balance on hand June 30, 1894.....	2,322.05	133.91	2,455.96
Total.....	6,867.21	4,415.21	11,282.42

On the 12th day of August, 1893, camp equipage was forwarded, in charge of a quartermaster agent, to Chicago, Ill., for use of the corps of cadets, U. S. Military Academy, on the grounds of the World's Columbian Exposition.

The camp was in readiness for the command upon its arrival.

Two days after the departure of the corps for West Point the equipage was shipped from Chicago, and arrived here on the 1st day of September, 1893, in good condition.

On the evening of June 9, 1894, about 8 o'clock, a fire was discovered in the gas-coal house at the post. The fire spread with great rapidity, and notwithstanding every effort was made to check it, the whole roof of the building, together with the tramway track over it, was destroyed. The cause of the fire was unknown.

Respectfully submitted.

W. H. MILLER,
*Captain and Assistant Quartermaster, U. S. Army,
 Disbursing Officer, U. S. Military Academy.*

Amounts received, disbursed, etc., under the various appropriations for the Quartermaster's Department, U. S. Army, during the fiscal year 1894.

	Regular supplies.	Incidental expenses.	Army transportation.	Clothing and equipage.	Shooting galleries and ranges.	Cavalry and artillery horses.	Total.
Appropriations for 1890-'91:							
Received from sales.....						\$10.00	\$10.00
Deposited.....						16.00	16.00
Appropriations for 1891-'92:							
Received from Quartermaster-General.....		\$2.55					2.55
Disbursed.....		2.55					2.55
Appropriations for 1892-'93:							
Balance on hand July 1, 1893.....	\$5,407.17	823.39	\$481.15	\$5.00			6,716.71
Received from Quartermaster-General.....	16.94	70.55					87.49
Received from sales.....	152.42			2.14			154.56
Total.....	5,576.53	893.94	481.15	7.14			6,958.76
Disbursed.....	5,424.11	893.94	341.05	4.00			6,663.10
Deposited.....	152.42		140.10	3.14			295.66
Total.....	5,576.53	893.94	481.15	7.14			6,958.76
Appropriations for 1893-'94:							
Received from Quartermaster-General.....	24,248.35	10,500.00	4,824.45	8.00	\$69.40		39,650.20
Received from sales.....	4,064.62			98.83			4,163.45
Total.....	28,312.97	10,500.00	4,824.45	106.83	69.40		43,813.65
Disbursed.....	21,708.58	9,739.81	4,433.25	8.00	69.11		35,958.75
Deposited.....	4,064.62			98.83			4,163.45
Outstanding indebtedness.....	2,539.77	760.17	391.15				3,691.09
For deposit.....		.02	.05		.29		.36
Total.....	28,312.97	10,500.00	4,824.45	106.83	69.40		43,813.65

K.

STATE OF NEW YORK, EXECUTIVE CHAMBER,
Albany, March 15, 1894.

To the ASSEMBLY: Assembly Bill No. 162, entitled "An act to release to the Government of the United States all right, title and interest which the people of the State of New York may have by virtue of chapter 399 of the laws of 1892, or any other act taxing legacies, in and to a certain legacy given to the said the Government of the United States, in and by the last will and testament of Bvt. Maj. Gen. George W. Cullum, late of the city of New York, deceased, is herewith returned without approval.

I am convinced that the enactment of this bill would be a bad precedent to establish for future legislation. The facts leading to the introduction and passage of the bill are these:

By the will of Gen. George W. Cullum, deceased, a legacy of \$250,000 was bequeathed to the Government of the United States for the erection of a memorial hall at West Point. Upon this legacy the surrogate of the county of New York assessed a collateral inheritance tax of \$8,755. This order was appealed from by the Government of the United States and the executors of the decedent, and both the general term and the court of appeals* have affirmed the surrogate's order, holding that the State is justly entitled to the tax.

This bill would set aside the decisions of the courts and release the interest of the State in the tax. No good reason has been advanced why this exemption should be granted, and the bill is a type of particularly obnoxious special legislation.

ROSSELL P. FLOWER.

* NOTE.—The governor was in error. When the bill was introduced no decision had been rendered by the Supreme Court in general term. At the date of the message the case had not been carried to the court of appeals. It is still (September 24, 1894) pending in that court. (O. H. F.)

