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Stoddard, Glens Falls, N. Y.

REPORT
OF THE
BOARD OF VISITORS
TO THE
WEST POINT MILITARY ACADEMY.

1891.

WASHINGTON, *December 14, 1891.*

SIR: The undersigned members of the Board of Visitors to the West Point Military Academy, appointed on the part of the Senate of the United States by the Vice-President to attend the annual examinations of the Military Academy for the year 1891, in conjunction with the other members of the Board appointed by the Speaker of the House of Representatives and the President of the United States, having performed the duties devolving upon them by virtue of their appointment, herewith submit their report, adopting the report made by the full Board of Visitors in which we join as members.

CHARLES F. MANDERSON.

JAMES L. PUGH.

Hon. LEVI P. MORTON,

Vice-President and President of the Senate.

BOARD OF VISITORS.

JUNE, 1891.

APPOINTED BY THE PRESIDENT OF THE UNITED STATES.

1. Rev. FRANK A. O'BRIEN.....KALAMAZOO, MICHIGAN.
2. Colonel JAMES T. MURFEE.....MARION, ALABAMA.
3. Hon. JAMES A. WAYMIRE.....SAN FRANCISCO, CALIFORNIA.
4. Major JOHN M. CARSON, (*Secretary*).....WASHINGTON, DIST. OF COL.
5. Mr. DAVID W. PAYNE.....ELMIRA, NEW YORK.
6. General THEODORE S. PECK.....BURLINGTON, VERMONT.
7. Hon. ROBERT O. FULLER.....CAMBRIDGE, MASSACHUSETTS.

APPOINTED BY THE PRESIDENT OF THE SENATE.

8. Hon. CHAS. F. MANDERSON, (*President*).....OMAHA, NEBRASKA.
9. Hon. JAMES L. PUGH.....EUFULA, ALABAMA.

APPOINTED BY THE SPEAKER OF THE HOUSE OF REPRESENTATIVES.

10. Hon. JULIUS C. BURROWS.....KALAMAZOO, MICHIGAN.
11. Hon. JOSEPH A. SCRANTON.....SCRANTON, PENNSYLVANIA.
12. Hon. SAMUEL W. T. LANHAM, (*Vice-President*) WEATHERFORD, TEXAS.

REPORT
 OF THE
BOARD OF VISITORS
 TO THE
UNITED STATES MILITARY ACADEMY,
 FOR THE YEAR 1891.

To the Secretary of War, the President of the Senate, and the Speaker of the House of Representatives :

The Board of Visitors appointed to attend the annual examination of the United States Military Academy for the year 1891 assembled at West Point, in the rooms provided for that purpose, on the 1st of June. The authority for appointing this Board, the purpose for which it is appointed, and the duties devolved upon it, are found in the two following sections of the Revised Statutes of the United States :

SEC. 1327. There shall be appointed every year, in the following manner, a Board of Visitors to attend the annual examination of the Academy. Seven persons shall be appointed by the President, and two Senators and three members of the House of Representatives shall be designated as visitors by the Vice-President or the President *pro tempore* of the Senate and the Speaker of the House of Representatives, respectively, at the session of Congress next preceding such examination.

SEC. 1328. It shall be the duty of the Board of Visitors to inquire into the actual state of the discipline, instruction, police administration, fiscal affairs, and other concerns of the Academy. The visitors appointed by the President shall report thereon to the Secretary of War, for the information of Congress, at the commencement of the session next succeeding such examination, and the Senators and Representatives designated as visitors shall report to Congress, within twenty days after the meeting of the session next succeeding the time of their appointment, their action as such visitors, with their views and recommendations concerning the Academy.

In accordance with these provisions of law the following named gentlemen were appointed to constitute the Board of Visitors for the year 1891, and requested to assemble at the Military Academy on the 1st day of June :

APPOINTED BY THE PRESIDENT OF THE UNITED STATES.

Rev. FRANK A. O'BRIEN	Kalamazoo, Mich.
Col. J. T. MURFEE	Marion, Ala.
Hon. JAMES A. WAYMIRE	San Francisco, Cal.

UNITED STATES MILITARY ACADEMY.

Maj. JOHN M. CARSON..... Washington, D. C.
 Mr. DAVID W. PAYNE..... Elmira, N. Y.
 Gen. THEODORE S. PECK..... Burlington, Vt.
 Hon. ROBERT O. FULLER..... Cambridge, Mass.

APPOINTED BY THE PRESIDENT OF THE SENATE.

Hon. CHAS. F. MANDERSON..... Omaha, Nebr.
 Hon. JAMES L. PUGH..... Eufaula, Ala.

APPOINTED BY THE SPEAKER OF THE HOUSE OF REPRESENTATIVES.

Hon. JULIUS C. BURROWS..... Kalamazoo, Mich.
 Hon. JOSEPH A. SCRANTON..... Seranton, Pa.
 Hon. SAMUEL W. T. LANHAM..... Weatherford, Tex.

ORGANIZATION OF THE BOARD.

An organization was perfected by the unanimous selection of Hon. Charles F. Manderson as president; Hon. Samuel W. T. Lanham as vice-president; and Maj. John M. Carson as secretary.

Upon a call of the roll it was ascertained that all the members of the Board were present except Mr. Waymire, from whom a telegram was read explaining that he had been unavoidably detained on the road and would reach West Point the following day.

It was ordered that the regular meetings of the Board should be held daily at 3 o'clock p. m.

The president of the Board was authorized to appoint the usual committees for the examination of the various departments of the Academy.

The secretary was directed to notify Col. John M. Wilson, Superintendent of the Military Academy, that a quorum of the Board of Visitors was present, that the Board had been duly organized, and was prepared to proceed with the business for which it had been appointed. In accordance with this direction the secretary addressed the following letter to Colonel Wilson:

ROOMS OF THE BOARD OF VISITORS,
West Point, N. Y., June 1, 1891.

SIR: I have the honor to inform you that the Board of Visitors to the U. S. Military Academy for the year 1891, assembled this day at the place appointed for that purpose, and organized by the selection of Hon. Charles F. Manderson as president, Hon. Samuel W. T. Lanham as vice-president, and Maj. John M. Carson as secretary.

I have also the honor to inform you, by direction of the Board, that any communication you may desire to make in reference to the affairs connected with the Military Academy will be cheerfully received and be given careful consideration.

Very respectfully, your obedient servant,

JOHN M. CARSON,
Secretary.

Col. JOHN M. WILSON,
Superintendent U. S. Military Academy.

After a short recess the Board reassembled, when the president laid before the Board the following communication from Colonel Wilson, Superintendent of the Academy :

HEADQUARTERS U. S. MILITARY ACADEMY,
West Point, N. Y., June 1, 1891.

SIR: I have the honor to acknowledge the receipt of your communication of this date notifying me of the organization of the Board of Visitors.

I shall be happy to afford the Board every facility for a thorough inspection of the workings of all the departments of the Academy, administrative as well as those of instruction, and in general to do everything possible to assist the Board in its labors.

A programme of the examination has already been furnished each member. Notice will be given from day to day of such military exercises as are ordered for the Board of Visitors.

First Lieuts. Frank L. Dodds, Ninth Infantry ; Joseph E. Kuhn, Corps of Engineers ; and Daniel L. Tate, Third Cavalry, have been detailed to attend upon the Board of Visitors during their stay at the Academy.

I also take occasion to say that I hope the Board will communicate with me freely, both personally and officially, upon any subject connected with the Military Academy which may be of interest to its members in connection with their official visit to West Point.

In conclusion permit me to say that I desire to call officially upon the Board of Visitors at the hotel at 4:20 o'clock p. m. to-day, with the members of the Academic Board and my military staff, for the purpose of paying our respects to the Board of Visitors and to conduct them to a review of the corps of cadets given in their honor.

At the close of the review it will give me pleasure to receive the members of the Board, their families, and friends at my quarters to meet the officers and ladies of the post.

Very respectfully, your obedient servant,

JOHN M. WILSON,
Colonel of Engineers, Superintendent.

HON. CHAS. F. MANDERSON,
President Board of Visitors, West Point, N. Y.

A copy of Orders No. 74, dated West Point, N. Y., May 14, 1891, was also laid before the Board and copies furnished each member. These orders announced the programme for the examinations of the various sections and classes and concluded with the following order of military exercises for the period between the 1st and 12th of June :

VI. The following military exercises will take place during the examination :

Infantry	}	Review	June	1
		School of the battalion	June	4
Artillery	}	School of the battalion (skirmish drill)	June	9
		Heavy artillery drill (sea-coast guns)	June	2
		School of the battery (field artillery)	June	6
Cavalry	}	Heavy artillery drill (siege mortars)	June	9
		School of the soldier, mounted	June	3
Practical military engineering	}	School of the company, mounted	June	5
		Military bridge construction (pontoon bridge)	June	8
Small arms	}	Military signaling	June	10
		Use of the sword and bayonet, military gymnastics	June	11

This order of exercises may be changed on account of the weather or for other causes.

VII. The members of the First Class will be graduated June 12, 1891.

By order of Colonel Wilson,

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

The Superintendent, accompanied by his military staff and the members of the Academic Board, called upon the Board of Visitors at their rooms, and after an interchange of courtesies escorted them to the parade ground to witness the review arranged in their honor. Hon. Levi P. Morton, Vice President of the United States, having arrived at West Point a few hours prior to the time fixed for the review, upon invitation of the Board of Visitors participated in the ceremonies.

At the second session Hon. James A. Waymire appeared and assumed his duties as a member of the Board.

The President announced the following as the committees :

Appointments and Examinations.—Messrs. Pugh, O'Brien, and Scranton.

Discipline and Instruction.—Messrs. Murfee, O'Brien, and Peck.

Armament and Equipment.—Messrs. Peck, Manderson, and Waymire.

Buildings and Grounds.—Messrs. Payne, Lanham, and Fuller.

Supplies and Expenditures for Cadets.—Messrs. Burrows, Lanham, and Carson.

Fiscal Affairs.—Messrs. Scranton, Fuller, and Payne.

The committees proceeded at once to inquire into the matters assigned them respectively, and pursued their inquiries with commendable diligence. The results of these several inquests will be found in the reports made to and approved by the Board after full discussion.

PLAN OF PROCEDURE BY THE BOARD.

The plan upon which the Board proceeded to gain information about the various departments of the Academy was adopted for the purpose of ascertaining facts free from any influence of those connected with the administration of its affairs. It is proper to state in this connection that neither the Superintendent nor his assistants, at any time, except when so requested, offered suggestions or performed any act intended to influence the judgment of the Board or its members individually. Every opportunity was offered and every facility extended for full investigation of each department of the Academy, and every officer when called upon for information promptly responded. The committees daily prosecuted inquiries into the various departments, and at the regular meetings of the Board questions deemed important were presented for general discussion. By this course of procedure every member of the Board was made acquainted with the methods of each department of the Academy through the investigations of the committees, the necessity for changes when changes were recommended, and was thus prepared to act intelligently upon all matters presented by the committees. These regular meetings were found to be so interesting and instructive that during the fifteen days the Board was at the Academy not one meeting was dispensed with, and, with two or three exceptions, each meeting was attended by all the members. Several of them were at-

tended by the Superintendent and other officers of the Academy, from whom the Board desired information upon questions under consideration and whose attendance had been requested.

The reports of all the committees were presented during the days the Board was at West Point, their contents fully considered, and their recommendations discussed and acted upon. The final adjournment of the Board occurred on the morning of June 12. During the sessions a number of subjects were discussed and resolutions adopted which have no place in the reports of the committees. These matters are presented in the general report.

The Superintendent requested the Board to designate one of the members to deliver an address to the graduating class on the day of graduation, and in accordance with this request Hon. Julius C. Burrows was chosen. Rev. Frank A. O'Brien was also designated by the Board to deliver a short address upon that occasion.

The secretary was selected to write the general report and authorized, in the name of the Board, to call upon the War Department, the Superintendent of the Academy, and other parties from whom information deemed necessary in the preparation of the general report might be obtained.

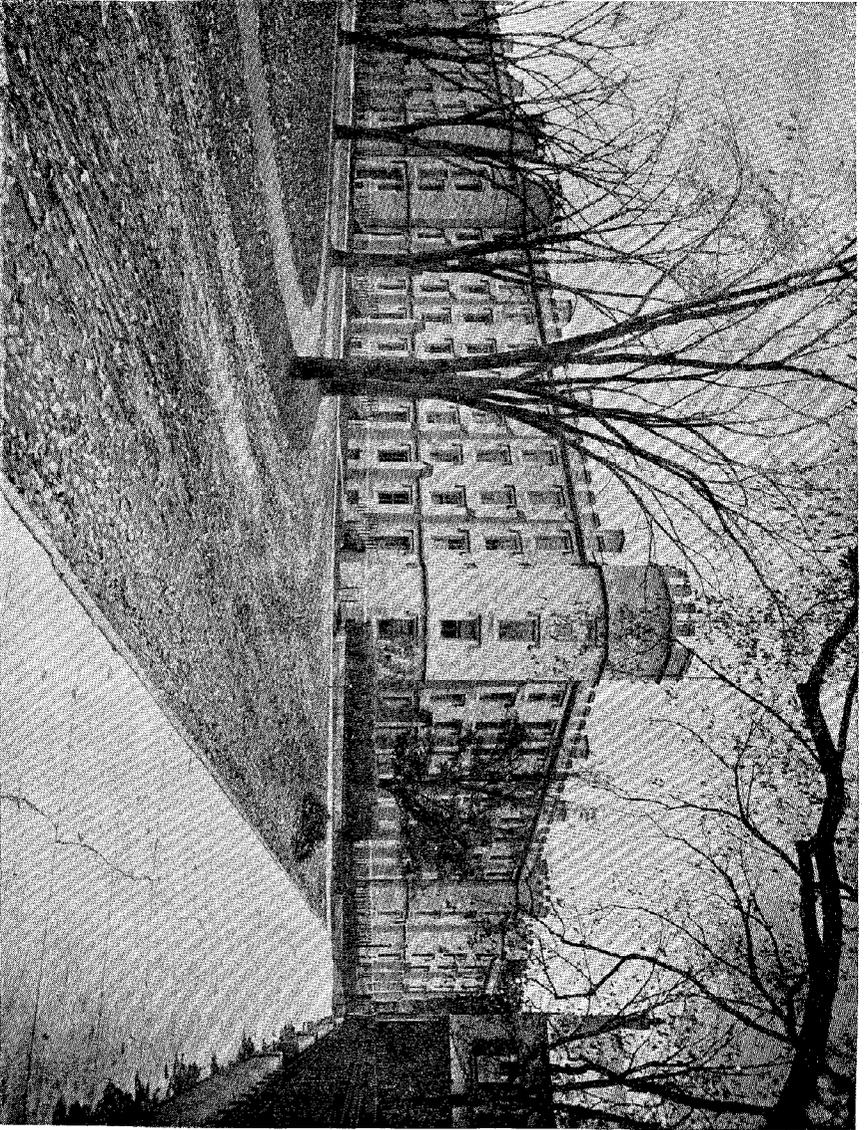
APPOINTMENTS AND EXAMINATIONS.

Committee on Appointments and Examinations.—Messrs. JAMES L. PUGH, FRANK A. O'BRIEN, and JOSEPH A. SCRANTON.

SHOULD THE CORPS OF CADETS BE INCREASED ?

The Board devoted considerable time to the question whether the strength of the corps of cadets as now established by law should be increased. This is not a new question. It has been discussed in Congress, in the public press, and in the reports of former Boards of Visitors. Opinion has been divided touching the general proposition, and varied as to the extent to which an increase should be made and the methods for its accomplishment. On the one hand many persons, influenced by the pride and enthusiasm incidental to a visit to West Point during the annual examinations and exhibitions, coincide with the opinion expressed by Gen. U. S. Grant upon the occasion of one of his visits to the Academy, and after he had visited many foreign countries, that there should be one thousand cadets at West Point. On the other hand, less sentimental but more practical persons believe that the measure of increase should not exceed the capacity of the present establishment. General Grant's expression that one thousand cadets should be receiving instruction at West Point was doubtless intended to express his estimate of the value of the Academy, and the excellence of the institution as a school for military instruction and training, and not a deliberate recommendation to increase the strength of the corps of cadets to the large number stated in the expression so often quoted.

To maintain one thousand cadets at West Point may not be impracticable but would be impolitic for several reasons, not the least of which is that of expense. The work performed at the Military Academy is admittedly of the highest importance and value to the nation. It teaches young men the art of war, and gives its graduates training which qualifies them to serve the country in a state of war to the greatest advantage. The present capacity of West Point is equal to supplying the annual casualties of the United States Army, but even should the number of graduates exceed this requirement the country would be largely benefited by having in civil life, in every State of the Union, men who have passed successfully through the Military Academy. These men would naturally become identified with the National Guard, and, should the emergency arise, would become efficient instructors and competent



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commanders of newly formed regiments and brigades. The importance and value of having among the body of the people men of military education and training is illustrated by the fact that during our civil war many of the most successful and distinguished officers in both armies were men who graduated at West Point, but who were engaged in civil life upon the breaking out of hostilities.

If we are to consider the Academy merely as the means of furnishing the necessary material for supplying the annual casualties of the present Army in time of peace, no change in existing laws governing this question is required. But the Military Academy has been established and brought to its present high standard of excellence and efficiency by years of labor and experience and large expenditures of money. It has capacity for training and educating at one time at least 400 students without material increase in the annual cost of its maintenance, and the Board believes it would be good policy to obtain for the Army and the country the full fruition of the institution by increasing the strength of the Corps of Cadets so that it may be at all times, after providing for casualties, nearly equal to the membership of the House of Representatives.

STRENGTH OF THE CADET CORPS.

The strength of the Corps of Cadets is fixed by law at "one from each Congressional District, one from each Territory, one from the District of Columbia, and ten from the United States at large." Under the existing Congressional apportionment the maximum strength of the corps is 347. Under the apportionment act passed at the last session of Congress, and under the operations of which the Fifty-third Congress will be chosen, this number will be increased to 371. The intent and purpose of the law creating the Academy and of all laws amendatory thereof was clearly to educate at the institution a number of young men equal to the membership of the House of Representatives plus the number which the President is authorized to appoint. If this purpose could be carried out and the corps maintained at the legal maximum, the number of young men who should annually graduate would be 87, of whom 40 or 50 would be needed to supply vacancies in the Army. It is perhaps impossible that this number could be actually graduated, because it is unreasonable to expect that there will not be cases of deficiency; but that the number of graduates should be greater than it now is will not be denied by fair-minded men who will give the subject even slight investigation.

The strength of the corps at this time, exclusive of the two young men from Switzerland and Nicaragua who are receiving instruction under special act of Congress, is 284, or nearly 23 per cent. below the strength fixed by law. This large percentage of deficiency is mainly due to the selection of poor material by members of Congress, aided, in many cases, by an entire failure to select. Upon the graduation of the class

of this year there were 155 vacancies to be filled. For these, 138 principals were appointed, leaving 17 districts from which no appointments were made. Of the principals appointed 9 failed to report at the Academy, thus reducing the number to 129, of whom only 90 succeeded in passing the preliminary examinations. At the same time 64 alternates were appointed, of whom only 30 reported, and of these but 7 were admitted, so that, instead of a class of 155, we have only a class of 97 to start upon the 4-years' course of study and training. This delinquency is equivalent to a waste of 37 per cent. of the power and energy of the institution, because the same forces used in the training of 97 cadets would train 155.

AN INCREASE RECOMMENDED.

Much attention was given this subject by the Board. The committee having the matter in charge made careful inquiry into it, discussing it with members of the Academic Board and the more experienced military officers on duty at the Academy, and it was also discussed with the Board at two meetings, set apart for that purpose, by Colonel Wilson and Professor Michie. As the result of this inquiry the Board unanimously adopted the report of the Committee on Appointments and Examinations, and agreed to recommend the passage of an act fixing the strength of the Corps of Cadets at a maximum of 469. In the selection of candidates for admission to the Academy, the Board recommends that in addition to the present allotment of 1 cadet to each Representative and Delegate in Congress, 2 cadets be allotted to each State at large, to be nominated by the Senators respectively, and that the President be authorized to nominate from the country at large 20. The practice prior to the passage of the act of June 11, 1878, was for the President to nominate 10 cadets for each year. The act referred to limited the appointments by the President to 10 for the academic term of four years. Should this increase be authorized, and in the manner proposed, there would be set apart for the House of Representatives 361 cadets, the number authorized under the new apportionment act, the Senate 88, and the President 20, thus making the total number 469. It is believed by the Board, based upon an examination of failures among candidates and casualties among cadets, that the proposed increase from 371 to 469 would be the means of maintaining the strength of the Corps of Cadets at about the number originally intended, namely, "one from each Congressional District, one from each Territory, one from the District of Columbia, and ten from the United States at large." Under the apportionment act of 1891 the House will consist of 356 Representatives and 4 Delegates from the Territories, which gives, with one from the District of Columbia, 361 as the number of cadets at the Academy exclusive of the 10 which the President is authorized to appoint.

SELECTION AND EXAMINATION OF CANDIDATES.

The present method of selecting candidates, and the time and manner of conducting their preliminary examination, were also made the occasion of special inquiry and discussion by the Board. We believe that an immediate change in both these particulars should be made. In the matter of selecting candidates the fact that so many of those nominated by members of the House of Representatives fail to pass the preliminary examinations, and the additional fact that many Representatives fail to nominate at all, or hold vacancies open for a year or more in order to nominate a particular person, show that some action should be taken to correct this abuse. The report of the committee on Appointments and Examinations discusses this question, and the special attention of the proper authority is earnestly directed to it. Previous Boards of Visitors have discussed this general question and all have recommended such action as would compel Representatives to make nominations of cadets at the proper time, and that such regulations should be made as will insure a larger number of admissions to the Academy. The Board of Visitors for 1887, of which Mr. George W. Childs, of Philadelphia, was president, in discussing the method of selecting candidates, directed the attention of the military authorities and the country to the prevailing abuse with a force and directness that should have commanded prompt action on the part of the President and the War Department. This is a matter within the province of the President and Secretary of War to regulate and correct. Members of Congress should be required, at the proper time, to nominate candidates to fill vacancies at the Academy, and failing to do this, appointments should be promptly made by the President from the list of eligible candidates filed at the War Department. The belief is general that members of the House of Representatives possess the right to appoint candidates for admission to the Military Academy. That such right does not exist under authority of the statutes is shown by the report of the Board of Visitors for 1887, which says on this subject :

The opinion has obtained that members of the House of Representatives have the *right* to appoint candidates for admission to the U. S. Military Academy. This is an error. The *courtesy* has been extended by the President to Representatives of permitting them to nominate candidates, but they have no more right to make an appointment than they have to appoint a postmaster or a collector of customs. The law authorizing and regulating appointments to the Military Academy is found in chapter 4 of the Revised Statutes, and the attention of members of the House of Representatives is specially invited to it. It provides :

"SEC. 1315. The corps of cadets shall consist of one from each Congressional district, one from each Territory, one from the District of Columbia, and ten from the United States at large. *They shall be appointed by the President*, and shall, with the exception of the ten cadets appointed at large, be actual residents of the Congressional or Territorial districts, or of the District of Columbia, respectively, from which they purport to be appointed.

"SEC. 1317. *Cadets shall be appointed one year in advance of the time of their admission to the Academy*, except in cases when, by means of death or other cause, a vacancy occurs which can not be provided for by such an appointment in advance." * * *

There can be no difference of opinion as to the construction of the law above quoted. The right to appoint is not only lodged in the President alone, but the obligation to appoint is imposed. The recommendation of the Representative is in no sense binding on the President, and gives the candidate so recommended by him no legal right to priority in the consideration of the President. The practice of appointing the person recommended by the Representative of the district in which a vacancy exists has been found, as a rule, to work satisfactorily; but the matter of appointment to the Military Academy has been so completely assumed as a right by the Representatives that it has come to be considered as a personal prerogative, to be given and withheld at pleasure. The result of this abuse—for it is an abuse—of the privilege extended by the President has been, and continues to be, detrimental to the public interests and expensive to the public Treasury. The Board would not be understood as recommending a withdrawal of the privilege of nominating candidates so long enjoyed by Representatives, and direct public attention to the matter simply to correct a popular error and in the hope that it will result in the adoption of a regulation by the President that will *require* Representatives to promptly recommend candidates for appointment to the Academy with the alternative of a selection being made directly by the President. The importance and necessity for the immediate adoption of such a regulation is shown by the fact that a large number of districts are constantly unrepresented at the Academy, by reason of the indifference and neglect of members of the House of Representatives, and sometimes of the deliberate design of a Representative to keep the place vacant for a year or two in order to accomplish the appointment of a particular candidate in furtherance of his own political preferment.

DERELICTION IN NAMING CANDIDATES.

In this connection it may be urged that the custom of permitting Representatives to absolutely determine the disposition of appointments of cadets to the Military Academy has been of such long standing as to have all the binding force of law. If this power was exercised by the Representatives in the direction of the public interest and in accordance with the spirit of the law, the plea of long continued custom might be treated with respect. But when exercised at the whim of the Representative, or to advance his individual interests, the authority which is alone vested in the President should be resumed by him and exercised to promote and maintain those interests which have been persistently neglected by the Representative. The Board earnestly directs the attention of the President and Secretary of War to this matter. We suggest that notification be given members of Congress that hereafter nominations for appointment to the Military Academy must be made for vacancies that are to occur the year next following on or before January 1, and that in all cases when nominations are not so made the President will exercise his authority to appoint.

The annual examinations take place in June. The law requires that "cadets shall be appointed one year in advance of the time of their admission to the Academy," except in cases where the vacancy is the result of casualty other than graduation. Public notice could be given through the newspapers of the prospective vacancies, and young men residing in the districts in which vacancies are to occur possessing the

prescribed qualifications invited to forward to the War Department applications and recommendations. In this way the President would be enabled to select a young man for appointment in every district in which the Representative was derelict. The fact that the President proposed to exercise his authority in the premises would in itself be sufficient to correct the abuse complained of.

PRESENT METHOD OF EXAMINATION DEFECTIVE.

Judged by its results the present method of examination of candidates for admission to the Academy is defective, and this opinion is sustained by members of the Academic Board and others who have inquired into it. The large percentage of failures may primarily be chargeable to a lack of proper training of candidates, but whatever the cause it should be remedied in order that the largest possible amount of raw material might be secured for the successful manipulation of the institution. That only 50 per cent. of all those admitted to the Academy has been graduated for many years may be regarded as a reflection upon the preparatory schools and academies of the country, but can not truthfully be said to be a correct estimate of the real character of their worth and efficiency. The Board believes that this great deficiency is attributable to the lack of proper care in selecting candidates and not to an absence of efficiency in the public and private schools of the country. Candidates are frequently sent to West Point whose lack of qualification would have been apparent before leaving their homes had they been subjected to examination. In many cases the failure of candidates is due to the absence of any training rather than to the insufficiency or inefficiency of any particular school or system. This would be remedied by holding the examinations at stated times in the several States, in the manner recommended by Colonel Wilson when conferring with the Board and outlined in the paper prepared by him and made part of this report.

NEW METHOD OF APPOINTMENT RECOMMENDED.

The Board approves in the main the plan of examination recommended by Colonel Wilson and commends it to the attention of the honorable Secretary of War. If adopted, with some change in details, it would undoubtedly be attended with good results. We recommend:

(1) That hereafter Representatives be required to nominate candidates not later than January 1, and in all cases of failure to nominate that the President designate young men for all districts that may be delinquent on that date.

(2) That examinations, physical and mental, be held at certain convenient points, to be designated by the Secretary of War not later than March 10, and that these examinations be conducted in the same manner as examinations are now conducted at the Military Academy, and under the direction and supervision of the Academic Board, the examinations to be held throughout the county upon the same days,

(3) That the examination questions be prepared by the Academic Board, each set of questions to be inclosed and sealed and sent to the Adjutant-General of the Army for transmission to the several officers appointed to conduct the examinations.

(4) That officers of the Army, not to exceed two at each point, be detailed to be present at the examinations, to whom the examination questions shall be sent by the Adjutant-General in the exact condition in which they were received by him from the Military Academy, and by whom alone the seals on the respective packages shall be broken on the day and in the place appointed for the examinations, and in the presence of the candidates there assembled, to whom the questions shall be delivered, one set of questions to each candidate in the order in which the subjects shall be taken up.

(5) That these officers be restricted to the conduct of the examination; that their duty be simply to be present at all times during the progress of the examinations, to see that each candidate performs his work without assistance, and to receive and forward the papers when completed to the Superintendent of the Military Academy under such regulations as may be prescribed by the Secretary of War.

(6) That when the papers are received at the Military Academy the Academic Board be required to proceed at once to examine and pass upon them, the results of this examination to be reported by the Superintendent as soon as practicable to the Adjutant-General of the Army.

(7) That Representatives be notified immediately by the Adjutant-General in case of failure of their candidates and requested to name other candidates not later than May 1, such candidates to be examined in the manner heretofore described, provided that can be done prior to June 20, otherwise the candidates to report to the Adjutant of the Military Academy not later than July 1 for examination at the Academy.

(8) That candidates who successfully pass the examinations held in their respective localities shall be admitted to the Academy without further examination.

(9) That no person who has failed to pass shall be again nominated for examination during the year for which such person failed.

In order to preclude favoritism in the examination of candidates and in passing upon their papers, the system now practiced at the Academy of assigning a number to each candidate, by which alone his papers are known to the Academic Board, should be followed. The numbers are assigned by the Adjutant of the Academy, and he is the only person who knows the names of candidates corresponding with the numbers. This information is held inviolate by the Adjutant until the final action of the Academic Board, when it becomes necessary to associate the names with the examination papers.

The plan of examinations recommended does not involve any change in their scope or character as now conducted at the Military Academy, nor does it in any degree lessen the authority of the Academic Board

over them. It simply brings the place of examination nearer the home of candidates and saves them the expense of traveling to and from West Point in case of failure to pass. Many young men who might be designated for appointment as cadets are not able to assume the expense of a journey to West Point with the contingency of similar expense for the return trip in case of failure, and nominations have been frequently declined on this account. This is particularly true of boys living at points remote from West Point whose parents are unable to assume the expense of traveling. Under the proposed plan of conducting the preliminary examinations those who pass would know upon leaving their homes that they are to enter the Corps of Cadets and remain at the Academy at least for the period of six months, or until the regular semi-annual examination of the classes is made.

REPORT OF THE COMMITTEE.

Following is the report of the Committee on Appointments and Examinations, which was presented by Mr. Pugh and after considerable discussion adopted :

ROOMS OF THE BOARD OF VISITORS,
West Point, N. Y., June 8, 1891.

To the Board of Visitors:

The committee on Appointments and Examinations have had these subjects under consideration, and find that the ability of the Academy to carry out its objects and insure its usefulness is far greater than the number of cadets now allowed by law to enter the Academy. It is a great waste of the power and capacity now employed in the institution to allow it to be expended upon the present number of cadets. It is the opinion of the able and efficient Superintendent and faculty of the Academy that the present number of cadets can be increased to 500 without any considerable outlay in the expenditure of money, and without any considerable enlargement of the machinery and means of accommodation now belonging to the Academy. The committee are therefore unanimous in recommending that the number of cadets be at once increased to 500.

The most difficult problem for solution is where the power of selection and appointment shall reside and how it shall be exercised. The original and primary object of the creation of the institution was to qualify officers to command a standing army of the United States. History has demonstrated the eminent success and usefulness of the Academy, and the wisdom and patriotism that prompted its establishment and continued and enlarged its existence, have been fully vindicated by experience.

On account of the exclusive military character and objects of the Academy the power of appointment was vested in the beginning in the President; but that official soon learned by trial that it was impracticable and inexpedient for him to exercise the power efficiently, and for this reason he delegated the power of selection and nomination to the members of the lower house of Congress. It is manifest that the intention and policy of the Government have been and are now that the beneficiaries of the institution shall come from the people in each State and Territory without discrimination or partiality. And no doubt the purpose of the President in conferring upon members of the House the power of selection and nomination was to popularize the institution by extending and distributing its benefits generally and equally among the people of the States and Territories.

It is a fact that the candidates selected by the members of the House have not in very many cases been successful in standing the examinations and passing the tests

of qualification for admission into the Academy. As a rule it has been found that the maximum number of cadets allowed by law has not been kept up by at least one-third, thereby depriving the country of the benefits of its expenditure for one-third more cadets, and the cadets themselves of the invaluable instruction and training provided for them and wasted on account of their absence.

For reasons satisfactory to the members of the House it has been decided by them to improve the mode of selection and secure, if practicable, a better class of their constituents for nomination to the President, and the change made by the members is to delegate their delegated authority to a board of examiners, to call before them the several applicants and ascertain their fitness to stand the examination of the Academic Board at West Point and pass into the Academy. The competitive system thus established has proven to be a great improvement upon the old mode of direct appointment. It, however, continues to be a fact that the number of cadets is never up to the maximum by a large proportion, and this deficiency is an evil that should be corrected. Whether the trouble is in the power of selection or in the character of the examination there is much difference of opinion. The power of selection ought to be kept as near to the people of the several States as practicable, and so exercised as to secure an equal and fair distribution of the inestimable benefits of the institution among all the people.

In relation to the examination of the candidates for cadetships, the committee find that the practice of requiring the candidates to attend an examination at West Point to determine their physical and educational qualifications for admission into the Academy works great hardship to those who are found deficient. The plain remedy for this evil is the formulation of some plan for the examination in each State on the same day of all the candidates who may be designated by members of the House in their several districts as now authorized, and should the number of cadets be increased as suggested, then the selection of those to be examined to be made by the Members of the House and by the Senators from each State and the President of the United States, or otherwise, as Congress may determine. It would be an easy matter to discover the physical defects that disqualify, and an Army surgeon might be detailed to make the examination in each State for that purpose at the same time and place appointed for the educational examination.

It has been suggested by Colonel Wilson, the Superintendent, that the questions now required to be answered by the Academic Board at West Point could be printed and sent by an army officer to each State some two months before the time for entering the Academy, who would call each candidate from the several districts on the same day at the capital of the State, or other convenient point, where the written questions would be delivered to each candidate, and without conference with each other or other person each candidate, without separating from the army officer, would be required to write out his answers to each question, and the answers delivered to the army officer, who would seal them up and forward them to the Academic Board at West Point. These answers would be examined and the right of the candidates passed upon by the Board, and if found qualified the candidate to be notified and his appointment made at once without any further examination on his arrival at West Point. If no one is found qualified in any district from the list of those who have answered, another examination shall be ordered, and so on until the maximum number is appointed.

Respectfully submitted.

JAMES L. PUGH.
FRANK A. O'BRIEN.
JOSEPH A. SCRANTON.

VIEWS OF THE ACADEMIC BOARD.

In order to obtain the views of the Academic Board on the question of increasing the efficiency of the Academy, the secretary of the Board

of Visitors was instructed to request that body to prepare a paper on this subject. Accordingly the following letter was sent to Colonel Wilson :

ROOMS OF THE BOARD OF VISITORS,

West Point, N. Y., June 6, 1891.

SIR: The Board of Visitors have instructed me to inform you that they would be pleased to have from the Academic Board a paper expressing the views of that board, either individually or collectively, in relation to the methods of appointment and examination of cadets; whether any changes can be made in these methods which, in their judgment, would tend to increase the number of candidates and thereby tend to increase the number of graduates; and, also, as to the advisability, at this time, of increasing the maximum strength of the corps to an aggregate equal to the number of Senators, Representatives and Delegates in Congress, and ten appointments by the President of the United States. In connection with the question of increasing the present number of cadets, the Board would be pleased to have the opinion of the academic authorities as to whether the proposed increase would involve any additions to present facilities of the Academy for the imparting of instruction, and if so, what the character and extent of such additions would be.

Very respectfully, your obedient servant,

JOHN M. CARSON,

Secretary.

Col. JOHN M. WILSON,

Superintendent U. S. Military Academy.

To the foregoing letter the following reply was received by the secretary of the Board from Colonel Wilson :

HEADQUARTERS U. S. MILITARY ACADEMY,

West Point, N. Y., June 24, 1891.

MY DEAR SIR: I have the honor to acknowledge receipt of the letter of the 6th instant from the Board of Visitors requesting the views of the Academic Board of the U. S. Military Academy relative to the existing methods of appointments and examinations of candidates, and asking whether any changes could be suggested which, in the judgment of the Board, would tend to increase the number of graduates.

This letter was laid by me before the Academic Board at its meeting on the 9th instant, and it received most careful and thoughtful consideration.

Taking up the various subjects mentioned, in their regular order, the Board requests me to state its views as follows :

(1) The Academic Board feels satisfied that with the Academy as now constituted the number of cadets can be increased, but such increase should be very gradual. For the present the Board can only recommend that the privilege of nominating ten cadets each year, instead of ten during four years, shall be restored to the President of the United States. This power was held by the President until its revocation by the act of Congress approved June 11, 1878.

(2) The Board is in favor of some method of examining candidates at various places throughout the United States, as outlined in general terms by the Superintendent of the U. S. Military Academy, but believes that it will require time and consideration to develop the best scheme in detail.

(3) The Board respectfully states that at present it has no suggestions to make as to the method of appointment of candidates for admission.

In submitting the foregoing views, in reply to the communication from the Board of Visitors, I have been requested to state that a minority of the Academic Board is not in favor of any increase of the corps of cadets at this time.

Having expressed in the foregoing the views of the Board, I shall take advantage of your request for individual opinions and present my own, as follows :

(1) I feel assured that the entrance examinations can be conducted without difficulty previous to the arrival of the young gentlemen at West Point, and I would suggest that candidates should be required to report for physical examination to the nearest medical officer of the Army immediately after receiving their letters of appointment, and should they be pronounced physically disqualified for military duty, their appointments can at once be revoked, and they would be spared further expense and mortification; should they be *pronounced qualified they should be admitted without further physical examination.*

(2) Early in April of each year, upon some stated day, I would require all candidates throughout the United States who have letters of appointment and who have been pronounced physically qualified, to appear for mental examination at certain geographical centers throughout the United States, such as Portland, Boston, New York, Philadelphia, Pittsburg, Washington, Richmond, Charleston, Atlanta, Mobile, New Orleans, San Antonio, Memphis, Louisville, St. Louis, St. Paul, Chicago, Omaha, Denver, Cheyenne, Helena, Salt Lake City, San Francisco, Portland, Seattle, and such other prominent places as the Secretary of War shall indicate.

These examinations should be held under the direction of the Academic Board of the U. S. Military Academy, and if necessary members of the Board could be detailed to be present at the more important points.

The questions should be prepared here by the Academic Board, and the examination conducted under the immediate supervision of army officers, acting simply as monitors. Each candidate should write his name upon a slip of paper, and should receive a number corresponding thereto; upon his examination papers his number only should appear. The names with numbers would at once be sent under seal to the War Department, while the examination papers, with numbers only, should be sent direct to the Superintendent of the Military Academy, for the action of the Academic Board.

The Board, after carefully considering all the papers, can at once determine which are satisfactory, and the Adjutant-General can be immediately informed of the numbers of the successful candidates.

The young gentlemen can then be notified, their original signatures sent to the Military Academy for comparison when they take the oaths of allegiance, and the candidates will be prepared to go on duty upon their arrival at West Point.

Appointments in place of those who may have failed at this examination can be made without delay, and these additional candidates, who will be few in number, can be promptly examined by the Academic Board as soon as they report in June.

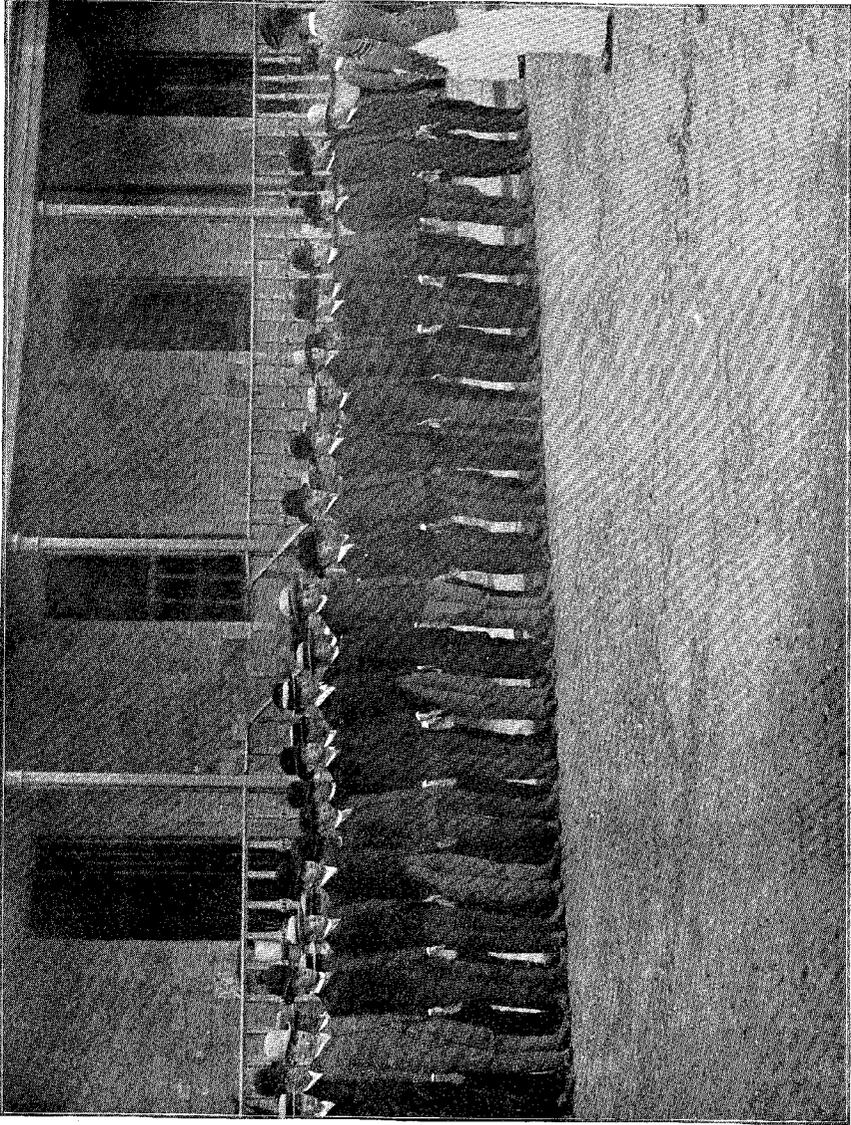
(3) I am in favor of a moderate increase of the number of cadets at the Academy, believing that our plant is sufficient to turn out a larger number of graduates each year.

Such increase should be gradual, and I would suggest, at first, simply restoring to the President the privilege of appointing ten cadets each year, of which privilege he was deprived by the terms of the act of June 11, 1878.

At present the maximum number of cadets authorized is 347; under the new apportionment it will be 372; with the privilege accorded the President which existed prior to 1878, the maximum number will be 402.

The present plant is amply sufficient to care for 402 cadets, and all that will be required will be the detail of a few more officers as instructors and the erection of additional quarters for their accommodation.

Should the demands of the country still render a further increase necessary, I would suggest in the future, after the first increase has been thoroughly tested, that the privilege now accorded members of the House of Representatives, of nominating candidates from Congressional districts, be extended to the U. S. Senate, by giving



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CANDIDATES.

Stoddard, Glens Falls, N. Y.

each State two cadets at large, to be nominated by the Senators to the Secretary of War.

This increase would necessitate a possible enlargement of the cadet barracks and chapel, an increase in the number of officers as instructors and quarters for their accommodation, an enlargement of the stables and more horses, and an increase in the lighting facilities of the post.

The new academic building, the cadet mess hall, with some minor changes, and the cadet hospital, would, in my opinion, need no enlargement so long as the maximum number of cadets allowed by law does not exceed 500.

Very respectfully, your obedient servant,

JOHN M. WILSON,

Colonel of Engineers, Superintendent.

Major JOHN M. CARSON,

Secretary Board of Visitors to the U. S. Military Academy,

West Point, N. Y.

The Board does not agree with Colonel Wilson that an increase in the corps of cadets, fixing the number at 469, would require enlargement of the cadet barracks. The actual presence of 469 cadets would perhaps necessitate an extension, but it is not probable that, even with the adoption of the plan recommended for appointment and examination, the actual strength of the corps would exceed 400 at any one time. The total number of rooms in the cadet barracks is 208, which will furnish ample accommodation for 416 cadets. For the brief period that the strength of the corps might exceed that number three cadets could be assigned to some of the rooms without sacrifice of personal convenience or risk to health.

VIEWES OF COL. SYLVANUS THAYER.

That the present methods of appointing and examining candidates for admission to the Academy has for many years been regarded as inefficient and faulty is shown by a paper prepared by Col. Sylvanus Thayer 26 years ago. Colonel Thayer was for many years Superintendent of the Military Academy. His administration was so marked by conspicuous ability as to gain for him the title of "Father of the Military Academy," and to secure a monument on the parade ground in the form of a life-size statue erected by the graduates of the institution. The last visit made to the Military Academy by Gen. U. S. Grant was to attend the unveiling of the statue of Colonel Thayer. The Board is indebted to Adjutant-General John C. Kelton for a copy of this paper of Colonel Thayer. General Kelton has given this general question much observation and study. No officer in the Army has had better opportunities for intelligent examination of the question, and no military officer has exhibited greater zeal in all that relates to the intellectual progress of the Army, the advancement of its morale, and promotion of its personal comfort than General Kelton. In a letter to

the secretary of the Board of Visitors, directing attention to the paper of Colonel Thayer, Adjutant-General Kelton says:

WAR DEPARTMENT, ADJUTANT GENERAL'S OFFICE,
Washington, June 9, 1891.

DEAR MAJOR CARSON: My observation and study of West Point has long ago convinced me that the method of appointing cadets is a failure.

The plan of Colonel Thayer, the father of the Military Academy, proposed in 1865, modified to suit present conditions, would probably be a success in securing the best representation for each Congressional district, and be the means of greatly increasing the number who could be graduated.

If, in addition to this method of securing the best candidates, the course of study at West Point should be divided at the end of the second year, giving all those members of a class who show marked proficiency in mathematical studies, and who have expectation for the Engineers, Ordnance, and Artillery, the present four years' course of instruction, and those who in the first two develop no special aptitude for mathematics a different course of study, but one more helpful in preparing them for commissions in the infantry and cavalry, I believe many more candidates could be graduated.

I am induced to send Colonel Thayer's project and to make the foregoing remarks upon seeing newspaper reference to the efforts the Board of Visitors are making this year to improve the quality of the candidates and increase the number to be graduated.

After making such use of Colonel Thayer's "Propositions and suggestions for the improvement of the U. S. Military Academy" as you may deem proper, please restore the paper to the files of the Department.

Very truly yours,

J. C. KELTON,
Adjutant-General.

Maj. JOHN M. CARSON.

Colonel Thayer's paper is entitled "Propositions and Suggestions for the Improvement of the U. S. Military Academy." Some of the recommendations had more force and application 25 years ago than at the present time. While the Board does not approve all the recommendations of Colonel Thayer, it contains so much that is of value at this time and in this connection that his paper is given entire. In this paper Colonel Thayer discusses the curriculum of the Academy, and advocates certain changes which will doubtless startle many of the older graduates. This portion of the paper properly belongs to the chapter of this report devoted to discipline and instruction. It is deemed best not to divide Colonel Thayer's paper, and it is therefore inserted entire in this place. The paper has laid in the files of the War Department for 25 years, its existence known to comparatively few persons. It is now printed for the first time. The paper is as follows:

PROPOSITIONS AND SUGGESTIONS FOR THE IMPROVEMENT OF THE U. S. MILITARY ACADEMY.

First. The Corps of Cadets to be increased so that it shall consist of 400 members for the present, to be further increased whenever accommodations for a greater number shall be provided.

Second. The present mode of appointing cadets, viz., on nomination by members of Congress, be done away with.

Third. The admission of cadets to be made dependent on the results of an open competitive examination, conducted with perfect fairness to all concerned.

Fourth. No candidate to compete who, at the time of joining the Academy, shall be under 17 or over 20 years of age, excepting candidates who shall have served not less than 6 months in the Army, who may be examined if not over 24; and no candidate shall be permitted to compete who does not produce satisfactory testimonials in regard to his moral habits and character, nor shall the name of any candidate be placed on the roll of those found qualified for admission unless, besides the requisite physical qualifications, he shall have passed a satisfactory examination in each and all of the subjects specified in the next following (fifth) proposition.

Fifth. The subjects of the competitive examination shall be:

- (1) Reading distinctly and understandingly.
- (2) Writing legibly and fairly.
- (3) Spelling correctly.
- (4) English grammar, so as to analyze and construe any ordinary English sentence.
- (5) Descriptive geography.
- (6) Arithmetic—ground rules, fractions (vulgar and decimal), ratios and proportions.
- (7) Algebra—ground rules, fractions, simple equations, discussion and solution of quadratic equations.
- (8) Geometry—therems and problems of plane geometry.

Sixth. The board for the examination of the candidates to consist of three members, two of whom to be selected from military officers, graduates of the Academy; the third member to be a civilian, a professor in some college, or any other person of well known competency, who is a resident of the State in which the examination is held.

It shall be the duty of the board to examine the candidates belonging to each State, separately, at the time or times and at the place or places fixed therefor, in each and all the branches required for admission, and thereupon to make out a special merit roll, for each branch, and from the special merit rolls a general merit roll, from the head of which will be taken in numerical order the number of cadet appointments to which the State may be entitled.

Seventh. Paragraph 18 of the Academy Regulations, edition of 1857, to be stricken out, and Article II to be modified, so as to conform to the foregoing propositions.

Eighth. Paragraph 23 to be modified so as to read as follows: "French grammar, reading French with a correct pronunciation, translating French into English readily and correctly."

Ninth. The Spanish language to be stricken from the regular course of studies and taught only as a voluntary study to such cadets as, in the opinion of the Academic Board, are capable from previous acquirements of pursuing the study without detriment to their progress in the obligatory studies.

Tenth. The subjects enumerated in paragraph 25 to be greatly abridged, and only so much of chemistry and its applications taught as are necessary or essentially useful to the military engineer or artillery officer.

Eleventh. Some of the branches named in paragraph 32 to be eliminated.

Twelfth. The present mode of examining cadets for advancement from class to class and for commissions in the Army, and also the present mode of forming the merit rolls to be submitted to the Board of Improvement for revision.

Thirteenth. A military officer, selected from the graduates of the Academy, and known to possess a thorough knowledge of all the sciences and subjects taught at the Academy, to be appointed inspector of studies, whose duty it shall be, under the direction of the Superintendent, to exercise a general supervision and control over the studies and instruction. He will give daily attendance at the recitations and lectures, notice the manner in which the professors and instructors discharge their

duties, respectively, and see that programmes and methods of instruction prescribed by authority are strictly and uniformly conformed to. In consultation with the professors and instructors, severally, he will arrange the studies and instruction, with a view to the best adaptation to the capacity of the different sections, and will decide in cases of transfer from section to section. He will receive from the professors and instructors the weekly class reports, enter the merit marks in the register kept for that purpose, and make a monthly report to the Superintendent on the progress of the studies, accompanied by a consolidation of the weekly class reports. He will also make an annual report, to be submitted to the Board of Improvement.

Fourteenth. A Board of Improvement to be appointed, composed of the Superintendent, inspector of studies, and of not less than three or more than five other members, a majority of whom to be military officers, graduates of the Academy, but not connected therewith. The principal duty of the board shall be to revise the programmes and methods of instruction, to point out defects therein, and to propose the proper remedies and ameliorations. The board will be present at all general examinations, and immediately after each annual examination will make a report to the Secretary of War on the progress of the studies and on the condition and management of the institution, so far as relates to the studies and instruction, and recommending such changes therein as observation and experience may have shown to be expedient.

Fifteenth. The term of residence at the Academy during war to be two years.

Sixteenth. The term of residence at the Academy during peace to be four years.

Seventeenth. The board of improvement to be assembled in special session at West Point as soon as practicable, with instruction to take under consideration the entire system of studies and instruction at the Academy; and in consultation with the professors and instructors to prepare programmes and tables for the distribution of the studies and employment of time adapted to the four years' term, and also for the proposed two years' term, the subjects of study and instruction in the programmes to be so detailed and defined that nothing shall be left to the discretion of the professors and instructors as to the matter to be taught or the *amount* of instruction to be given.

Eighteenth. The Superintendent, the inspector of studies, the commandant of cadets, with three of the senior professors, all of whom to be graduates of the Academy, shall constitute a board which shall be called the board of administration. It shall be the duty of the board to examine all text-books proposed by the head of each department of instruction before submitting them to the board of improvement for adoption by the Secretary of War; to recommend to the Secretary of War for purchase all such books, maps, models, and apparatus as may be required for the purposes of instruction, also such works as may be deemed most suitable for the yearly increase of the library; to recommend to the Secretary of War such changes in the regulations as experience may suggest, and to perform all other functions hitherto assigned to the Academic Board, except those pertaining to the examination and graduation of the cadets.

Nineteenth. A board of discipline to be appointed, composed of the inspector of studies, the commandant of cadets, and of three other members selected by the Secretary of War from military officers on duty at the Academy.

It shall be the duty of the board to inquire into and investigate the facts in all cases referred to it, touching breaches of the regulations, and other offenses reported to have been committed by a cadet or cadets, or by a person or persons unknown, and to report its proceedings in each case to the Superintendent, with its opinion, when required, as to the guilt or innocence of the party accused or implicated, and also as to the nature and degree of the punishment, if any, proper to be inflicted.

Twentieth. Paragraph 110 to be modified so that courts-martial for the trial of cadets may be dispensed with in all ordinary cases, and that punishment may be inflicted in the following manner, viz: Those of the second class, specified in paragraph 109, by the Superintendent, on recommendation of the board of discipline; those of the

third class by the Secretary of War, on recommendation either of the board of discipline or Academic Board, approved by the Superintendent.

Twenty-first. The second and third paragraphs of the Academy Regulations, edition 1857, to be replaced by the corresponding paragraphs of the regulations in force from 1817 to 1839.

Remarks referring to corresponding numbers of the foregoing propositions.

First. In order that all the vacancies in the Regular Army on the peace establishment, not filled by promotion from the ranks, may be filled by graduates from the Military Academy, the strength of the Corps of Cadets must be largely increased. Five hundred, or 600, would, probably be necessary to that end, but, as the existing buildings at West Point are not calculated to accommodate more than 400, that number is proposed as the proper limit *for the present*. But as the object of the Academy, in the minds of its founders, was not only "to supply vacancies in the Regular Army but also to diffuse military instruction throughout the Union," the number of cadets should, as soon as practicable, be so increased that the Academy could turn out, annually, a large surplus of graduates over and above the number necessary to fill the vacancies in the Army. These supernumeraries should be regarded as retired officers *without pay*, waiting to be called into active service in time of war; meanwhile, as civil engineers, professors in colleges, teachers of scientific branches, and also, at least, many of them, as militia officers, "diffusing military instruction throughout the Union," they would be rendering service to the country more than equivalent to the cost of their education at the Academy.

Assuming 400 to be the number of cadets at the Academy, and that the President may think proper to reserve a certain number of places, say twenty, to be given to the sons of soldiers and officers of the Army and Navy, who, having no settled habitat, can not be classed as residents of any particular State or Territory, the remainder, say 380, would be so distributed among the States and Territories that each would always have at the Academy a pro rata representation, based upon population or congressional representation.

Second. The present mode of appointment was adopted at a time when the existence of the Academy was believed to be in jeopardy and to be saved only by conferring on Members of Congress a coveted patronage; but now, when the Academy seems firmly established in public favor, it may, it is hoped, be safely left to stand on its own merits, independently of all questionable helps. Whether the appointment of cadets by Members of Congress is not contrary to the spirit, if not to the letter, of the Constitution; and, also, whether it is not liable to abuse by unscrupulous members, are questions that may be worthy of serious consideration in proper time and place, but here I need only call attention to the undeniable fact that it fails to procure for the Academy proper subjects to be educated at the public expense.

The records of the Academy show that the number of cadets *admitted*, compared with the number *graduated*, stand as five to two; that is so say, three-fifths of the cadets admitted are found incapable of going through, being removed, some during the first six months, others only after a residence varying from 1 year to 4 or 5 years. Of the two-fifths who are graduated, many succeed only by dint of intense application and the great pains bestowed upon them by their teachers. Men of this stamp, although they make meritorious officers in subordinate positions, are rarely successful in independent and responsible commands. The remedy for the evil is, evidently, only to be found in some means by which the mental capacity of the candidate may be fairly tested and measured, and his ability to master the course of studies at the Academy may be judged of with some degree of accuracy; and the only means to that end yet tried and found successful in other countries is a high standard of attainment, joined to open competitive examinations for admission, means that could not fail to procure for the Academy youths who are the *elite* of the nation. Objections, if any, to admission through competitive examinations can come only from the very few who profit by the patronage derived from the pres-

ent mode of appointment; but the people, minus these few, can only desire that their armies may be supplied with the best officers the nation can furnish; officers who will know how to win victories.

Third. Open competition for entrance into her military schools was adopted by the French Republic 70 years ago, and has been maintained to the present day, and all the other European governments, including that of Great Britain, have been compelled, one after another, to follow her example. It is remarkable, and seems little creditable, that the great model republic, of which we are justly so proud, should be the last to give up patronage, the policy of aristocratical and monarchical governments, and, also, the last to adopt the republican principle of open competition, which seeks out and rewards the most worthy, wherever to be found, without distinction of class or condition, race or color.

Fourth and Fifth. The standard of attainment proposed is not, by any means, as high as is desirable, or, indeed, as is necessary as a test of the candidate's capacity, and of his ability to master the course of studies at the Academy. It is lower than at Woolwich, far lower than at St. Cyr, Wiener-Neustadt, or any similar institution in other countries, but it is hoped that it may be raised gradually, *pari passu*, with the improvement of the common schools.

In view of the importance of French and drawing to progress after admission, and of Latin to the acquisition of French, I would recommend that the candidate, at his option, be admitted to an examination in all or either of those branches, and that some weight be given to them in forming the general merit roll of those who are found qualified for admission.

Sixth. It may be expedient, perhaps, to constitute a separate board for the examination of candidates belonging to States on the Pacific.

The place or places designated for the examinations should be central in regard to population, or as nearly so as practicable; one place only in the smaller States, two or more in the larger; for instance, in New Jersey, Princeton or Brunswick; in the State of New York, New York City, Albany or Schenectady, Geneva or Rochester; in Massachusetts, Boston and Springfield, or Amherst.

The regulations requiring the candidate to repair to West Point to be examined for admission, he paying his own expenses to that place, and if rejected back to his home again, is not only unequal and often oppressive in its operation, but also in effect excludes many of the poorer class from the benefits of an institution that should be equally open to all.

Seventh. An open competitive examination and a high standard of attainment for admission would accomplish the object in view better than the probation exacted by paragraph 18; besides, the cadet should consider himself on probation during the whole period of his residence at the Academy, and liable to be removed at any time for want of capacity, or for want of application, as well as for deficiency in moral or military conduct.

Eighth. All books not in English, the reading or study of which can be useful to an officer of the U.S. Army, are either by French authors or are translated into French; hence French is justly regarded as the "key of military science;" but no more time should be bestowed upon it at West Point than would enable the pupil to read French with facility without the help of a dictionary. The additional time that would be necessary to speak French or to translate English into French (which no officer of our Army would probably ever be called upon to do in the line of his profession) would be more usefully applied to other subjects, a knowledge of which is indispensable to the military officer.

Ninth. The reasons above given for teaching French as an obligatory study do not apply in the least to Spanish. The only pretext there can be for teaching it at West Point is to enable the pupil to carry on a conversation in Spanish, in the very doubtful case of his ever having occasion to speak it in the line of his profession before he forgets it from want of practice. But here it is pertinent to inquire whether any

class, or even any individual not previously grounded in the language, ever made at West Point such proficiency as would enable them, or him, to carry on a conversation in Spanish. But whether that degree of proficiency has been attained or not, I am clearly of opinion that Spanish should be eliminated, giving place to more important subjects which its introduction crowded out or unduly contracted.

Tenth. "Bleaching," "dyeing," "tanning," "gilding," "distilling," and much other extraneous matter may well be excluded from the programme. The subjects of this course should be taught mostly by lectures, and, limited as proposed, need occupy less time than is now allotted to them.

Eleventh. The numerous subjects comprised in paragraph 32 occupy more time than is due to their relative importance, and yet not enough for teaching them as they should be taught to be useful. "English grammar and descriptive geography" are among the proposed requisites for admission. "Physical geography," if retained, might be transferred to the department of natural philosophy, or taught in connection with geology. "Political geography" and the "history of literature" may well be excluded, and also civil history, except a few lectures to teach how history should be studied; the time thereby saved to be applied partly, if deemed necessary, to the more important subjects of the course, viz, moral philosophy and law, constitutional and national, and the remainder distributed in due proportions between military engineering and French, both of which have been encroached upon by the undue expansion of the department of ethics. The branches proposed to be eliminated or restricted crept in at a time when the notion seemed widely prevalent that the object of the Academy was, or should be, to educate young men for the bar and the pulpit, rather than for the Army.

Twelfth. The manner of conducting the annual examination, and also that of forming the merit roll, as prescribed in paragraphs 62, 65, and 67 of the regulations, edition of 1857, are believed to be susceptible of material improvement. The examining committee should be so composed that every member of each committee shall be capable, by a thorough and familiar knowledge of the subjects, of forming an intelligent judgment of the performance of the examinee, and the number of committees should be such that, by their simultaneous action, the annual examination may be confined within the narrowest limits of time compatible with a thorough and searching examination of the pupils. These desiderata may, it is believed, be secured by means of seven committees, composed as follows: (1) For mathematics, the professor, the principal assistant professor, the instructor of the section under examination, together with not less than two other members not connected with the Academy, selected from experienced and successful teachers of mathematics; (2) for natural philosophy and for chemistry, mineralogy and geology, a single committee, consisting of the two professors and their principal assistants and the instructor of the section under examination, together with not less than two members of known competency not connected with the Academy; (3) for engineering, the professor, the principal assistant professor, the instructor of the section under examination, together with not less than two officers of the Corps of Engineers, not under the grade of captain and not connected with the Academy; (4) for artillery, cavalry, and infantry tactics, and for ordnance and gunnery, a single committee, consisting of the instructors of those branches, together with at least three officers, graduates of the Academy, not under the grade of a field officer, selected from the artillery, cavalry, and infantry, to represent those arms respectively; (5, 6, and 7) for ethics, French, and drawing, the committee for each to consist of the professor, the principal assistant professor, the instructor of the section under examination, together with two or three members appointed by the Superintendent from members of the Academic Board not on other committees, or from the Board of Visitors, or from acting assistant professors, or other officers on duty at the Academy.

The inspector of studies and the Superintendent to be *ex officio* members of any of the committees, and when present to preside therein.

The duration of the annual examination will necessarily be determined by the time it takes to examine the pupils in mathematics, that time being more than is required by any other committee to finish its task. If, owing to the increase of the Corps of Cadets or any other cause, the examination in mathematics can not be brought within the limits of 18 working days, it may be expedient to constitute two committees for that subject.

The numbers representing the value or weight given to the different subjects are not apportioned according to their relative importance or to the time allotted to them, respectively, nor apparently according to any just principle. In forming the general merit rolls of the three lower classes (second, third, and fourth) too much weight is allowed to conduct. If allowed any weight at all, it should be merely enough to turn the scale when merit in scholarship is equally balanced. To give it more weight is simply to weaken the incentives to study, which was the sole object of the merit-roll system. The arm of discipline, if skillfully wielded, is strong enough of itself, needing not to be aided in a way that is injurious to progress.

Thirteenth. The office of inspector of studies in the Royal Military Academy at Woolwich was created in 1772, and still exists. It is filled by a lieutenant-colonel of engineers or artillery, whose salary is \$1,500, in addition to his regimental pay and allowances, amounting in the whole to \$3,500. The officer performing the same functions in the military schools on the continent is styled (more appropriately) director of studies.

From the year 1817, when the present system of studies and instructions at the Academy was established, to 1834 or later, the Superintendent was charged with the duty of directing the studies, a duty he discharged to the best of his ability, as far as it was consistent with his other indispensable duties, but the duty is such as to require for its proper performance the entire and continuous attention of an officer. By a change in the regulations first promulgated in 1839, it ceased to be the duty of the Superintendent to direct the studies, and ever since each professor has been the supreme director of studies in his own department. The evils experienced from there being no officer at the Academy charged with the general control of the studies are such as to demand a speedy remedy.

The inspector of studies should be second in command, and supply the place of the Superintendent when absent.

The importance and utility of a properly constituted body to point out defects and suggest ameliorations in the system of studies and instruction at the Academy seem too obvious to need demonstration or argument. Such a body, styled (Counsel de Perfectionment) board of improvement, has been found necessary to the proper working of the machinery of instruction in all the best European military schools. Some of the evils experienced at West Point for the want of such a board will be noticed in connection with proposition 17.

The board should be of a permanent character in order that the Academy may have the benefit of its accumulated experience and be the more secure against rash experiments and innovations made to cure imaginary evils, or to effect chimerical improvements. A system found to have worked well for many years should not be *tampered with*, or be subject to other changes than such as enlightened experience indicates to be safe and expedient.

Fifteenth and sixteenth. The duration of residence at military schools is determined mainly, *cæteris paribus*, by the standard of attainment for admission; the higher the standard the shorter the time, and *vice versa*, the limits being 2 and 4 years. The term at Addiscombe, Sandhurst, and St. Cyr is 2 years; at Woolwich, 2 years for the theoretical course, and 6 months more for the practical course. The term at Wiener-Neustadt, Austria, is 4 years, although the standard is higher than at either of the other above-mentioned schools, excepting St. Cyr. With the standard raised as herein proposed, 4 years is ample for the course at West Point; *provided, however*, that Spanish is eliminated and the other subjects not intimately

connected with the knowledge absolutely necessary to the military officer shall be properly restricted. With the same standard, a course of studies and instruction comprising all that is absolutely necessary for practical purposes may, in my opinion, be completed in *two* years. The outlines of such a course will, if requested, be submitted for a rigid scrutiny to the board of improvement.

Assuming the term in time of war to be 2 years and the number of cadets at the Academy to be 400, constituting a battalion of eight companies, it would seem to me best to divide the cadets into four semiannual classes, a class to be admitted and a class to be graduated every half year. With the standard of capacity raised, as it would be by the means proposed, it may be safely calculated that nine-tenths of the cadets admitted would go through, and that the cost of each graduate would be reduced to about one-third of the present cost.

Seventeenth. That there is something wrong, either in the arrangement of the studies or in the methods of instruction, is acknowledged by the professors themselves, although every one may not see that all is not right in his own department. The following statement, incidentally made by one of the professors, gives a glimpse of the nature of the evil in question: "Few, except the highest members of the class, seem to have retained anything of the higher analysis, and the grossest blunders are frequently made, even in the elements of algebra and geometry, either through forgetfulness or negligence. Many who graduate would seem to have been very little benefited by their past studies, so far as the retention of what they had once learned is concerned."

The evil is by no means confined to a single class or department, nor can it fairly be imputed to the professors and instructors, who are unsurpassed in the art of teaching. Traced to its sources, it is found, mainly, in the third article of the Regulations, which, by prescribing merely a syllabus or outline of the studies in each department, leaves the filling in to the professor, and thereby makes him, in fact, the constructor of his own programme. The natural consequence is that the pupil is overtasked, "crammed;" more mental food is given him than the mind is capable of digesting. There is too much abstract theory; not enough of the practicable application to impress the theory on the memory, so as to make it durable and practically useful.

The nature of the evils being known, and its cause also, the remedy is plain. First, there must be well devised programmes prescribed by authority, describing in the most minute detail the instruction, both in kind and amount, to be given in each department for ethics, French, drawing, and for chemistry, mineralogy and geology, one programme each; for mathematics, natural philosophy, and engineering, two programmes each, a maximum and minimum, the former adapted to the capacity of the first or highest section, the latter comprising only those subjects in which every pupil must pass a satisfactory examination before he can be advanced to a higher section, or be recommended for a commission; the maximum programme to be modified for the intermediate section or sections between the highest and lowest, by excluding therefrom more or less of the more difficult subjects and investigations (in the discretion of the inspector of studies), so that the studies and instructions shall be duly proportioned to the capacity of the said section or sections. Second, it must be made the duty of the inspector of studies to see that the programmes are strictly adhered to, and that the lessons given out by the instructors are duly proportional to the time set apart for their study or preparation.

The preliminary steps necessary to be taken for obtaining these programmes are, first, to require each professor to prepare a detailed programme of the instruction given in his department (in the last academical year), divided into lessons, with an estimate of the time, in hours, a pupil of fair abilities with proper diligence will require to master each subject and lesson, stating, separately, the time necessary for preparation and that for attendance at recitations and lectures. Second, the programmes so prepared to be referred for revision to the board of improvement at the earliest period practicable. And it is recommended that the board, in drawing up

the general programme of studies and instruction proper to be included in the 4 years' course, be instructed to consider the expediency of the following distribution of the subjects: (1), the studies and instruction of the first class (fourth year) to be confined to military subjects exclusively, viz: fortification, field and permanent, with attack and defense, and all other subjects proper to be included in the course of military engineering, theoretical and practical; ordnance and the science of gunnery, the organization and movement of armies, field service, principles of strategy, military administration, military law and Army Regulations, and all other subjects comprised in the terms "Military science and art." (2), the instruction given by the professor of drawing to be confined to the first and second years (third and fourth classes) and the studies and instruction of the third and fourth classes to be confined to mathematics, French and drawing, exclusively. (3), natural philosophy and chemistry, mineralogy and geology, and all other subjects proper to be included in the 4 years' course of studies and instruction (exclusive of those specified under Nos. 1 and 2), to be confined to the third year (second class.) (4), 10 hours daily (average time) from September 1 to the annual examination in June to be given to the above-mentioned subjects. (5), so much of the theory of tactics (artillery, cavalry, and infantry) as shall not be included in the fourth years' course, to be taught during encampment only.

The reasons for the distribution of studies above proposed will, if requested, be submitted to the board of improvement when the subject is taken up for consideration.

Eighteenth. The proposition to be submitted for paragraph 10 of the Academy Regulations, edition 1857. The change is suggested by my own experience while superintending the Academy.

Nineteenth and twentieth. At Woolwich Academy, in an early period of its existence, cadets were brought before a court-martial in order to their dismissal, but the practice having been found to work badly was soon discontinued. At no other foreign military school, if I am correctly informed, has a pupil at any time been brought before a court-martial. At West Point, from 1803, when the Academy was founded, up to about 1820, no cadet was brought before a court-martial. The power of dismissal rested in the Superintendent, and his action in every case was *final*, and at no time since has there been a sounder state of discipline and morals at the Academy than during that period generally.

The principal objections to trial of cadets by court-martial are: (1) Its demoralizing tendency, the cadet witnesses being under a strong temptation to conceal or withhold their knowledge of facts when the punishment of a beloved comrade is in question. (2) The impunity it affords to the most criminal of the offenders, those who plan, instigate, and pull the wires, but in such manner that no legal evidence can be produced against them when arraigned. Nevertheless, these invisible contrivers and leaders of mischief are well known to the authorities, and unless they may be removed without the formality of a trial a sound and satisfactory state of morals and discipline at the Academy is out of the question. If indeed there be any law which by a fair construction prohibits the dismissal of a cadet unless by sentence of court-martial, the law should be repealed and the President empowered to establish such rules and regulations for the government of the Academy as shall seem to him necessary and proper. The idea of governing boys at school, albeit a military school, by the laws and rules made for the government of an army is manifestly absurd.

Twenty-first. The paragraphs proposed to be restored (see Academy Regulations, editions of 1832, or any previous editions published after 1817) are as follows:

"Paragraph 2. A permanent superintendent of the Academy, appointed from the Corps of Engineers, will have the immediate government of the institution, and be held responsible for its correct management. He will direct the studies, field exercises, and all other academic duties, and all professors, teachers, academic officers and cadets shall be under his command. He will render all returns, estimates, and communications concerning the institution to the inspector.

"Paragraph 3. No officer of the Army of any rank whatever shall exercise command in the Academy unless subordinate to the Superintendent."

By comparing the foregoing with the corresponding paragraphs now in force, which were first published in the 1839 edition of the regulations, it will be seen that the words *underscored* in the second paragraph were stricken out, without other change, and that in the place of the words *underscored* in the third paragraph, the following words were inserted: "Except the commandant of the Corps of Engineers." These changes, which could not have been made without design, changed completely the office and position of the Superintendent. He was no longer a *permanent* superintendent, but filled the office, as it were, by *routine*. It ceased to be his duty to "direct the studies." He was no longer held responsible for "the correct management of the institution," nor indeed could be, as power and responsibility are correlative terms. In proportion as the former is restricted the latter is diminished, and there remained only a common or a divided responsibility, subsisting between the Chief Engineer and the Superintendent, which, as it seems to me, is little better than no responsibility at all. Whether these changes have inured to the benefit of the Academy may be best answered by the three senior professors, who have been members of the institution from 40 to 44 years.

The office of permanent superintendent was created by President Madison in 1816, on full consideration, after consulting with Mr. Monroe, president-elect, and with the Secretary of War, and from a conviction of its necessity, in view of the previous history of the institution. The person whom he designated for the office continued to fill it for the full period of 16 years, terminating in 1833. Since then there have been eight changes in the office, each change bringing with it naturally some changes either for the better or for the worse in the management of the institution. There are few persons, probably, in the military service of our own or of any other country, who possess the peculiar qualifications fitting them, in all respects, to govern a grand military school like that at West Point, and when the person selected for the position is found on trial to be the "right man in the right place," an over-ruling necessity only would justify his removal.

Respectfully submitted.

S. THAYER,
Colonel of Engineers.

COMPETITIVE AND DIRECT APPOINTMENTS.

The relative merits of appointing candidates direct and by competition has been discussed in previous reports, by the newspaper press, and in Congress. This Board was divided in sentiment as to the merits of the two systems and concluded to merely present figures covering a number of years and showing the results obtained under each system. The table given below covers all the classes which have left the academy from 1873 to 1891, inclusive. It shows the total number of candidates appointed for each year during that period, the number appointed by competition, and the number graduating who were appointed under each system. It will be noticed that under the competitive system 60 per cent. graduated and 40 per cent. failed to graduate, while of those appointed direct only 42 per cent. graduated and 58 per cent. failed. It will be also noticed that for the 15 years covered by the table the number admitted was 1,588, of whom only 789, or one-half, graduated.

Number of cadets admitted to the U. S. Military Academy from 1873 to 1891, inclusive, showing number appointed by competitive examination and directly, with number graduated and casualties under each mode of appointment.

Year of entering.	Total number admitted.	Appointed by competition.						Appointed directly.					
		Graduated.	Resigned.	Discharged.	Dismissed.	Died.	Total.	Graduated.	Resigned.	Discharged.	Dismissed.	Died.	Total.
1873	118	34	3	10			47	42	10	19			71
1874	89	13	4	10	1		28	27	10	22	2		61
1875	121	30	8	6	2		46	34	18	22	1		75
1876	98	23	4	16		2	45	24	11	16	1	1	53
1877	96	36	4				51	20	8	13	4		45
1878	102	22	7	13	1		43	17	23	19			59
1879	88	29	4	14			47	19	14	14			41
1880	73	23	3	5	1		32	14	12	15			41
1881	85	19	6	8			33	24	10	18			52
1882	129	40	7	12		1	60	35	11	23			69
1883	141	*37	10	20	2	1	70	*30	16	23	1	1	71
1884	98	24	2	14		2	42	18	7	30		1	56
1885	95	21	9	9	1		40	24	8	23			55
1886	128	44	8	22			74	18	6	29		1	54
1887	127	39	5	19		2	65	15	12	24			51
Total	1,588	434	84	189	8	8	723	355	176	310	9	4	854

* Including eight cadets turned back into the class of 1888.

Competitive:	Per cent.
Graduated	60
Failed to graduate	40
Direct:	
Graduated	42
Failed to graduate	58

The annexed table shows the number of candidates admitted and the number found deficient under the direct and competitive systems, respectively, for the 19 years ending with August, 1891. As in the preceding table, the result is decidedly favorable to the competitive system.

Number of candidates admitted and found not duly qualified at preliminary examinations for admission to the Military Academy from 1873 to 1891, inclusive, by appointment under the competitive and direct methods.

Years.	Competitive.		Direct.		Years.	Competitive.		Direct.	
	Admitted.	Not duly qualified.	Admitted.	Not duly qualified.		Admitted.	Not duly qualified.	Admitted.	Not duly qualified.
1873	57	16	61	58	1884	40	12	58	30
1874	26	10	63	56	1885	41	7	54	26
1875	46	20	75	47	1886	74	25	54	20
1876	38	11	60	42	1887	70	20	57	36
1877	46	27	50	60	1888	42	18	59	38
1878	40	6	62	39	1889	34	14	62	54
1879	46	13	42	21	1890	39	12	43	41
1880	32	10	41	24	1891	43	14	54	26
1881	33	18	52	42					
1882	62	12	67	39	Total	878	277	1,086	743
1883	69	12	72	44	Per cent.	76+	24+	59+	41+

REPRESENTATIVE CHARACTER OF THE CADET CORPS.

It is sometimes contended in discussing the merits and usefulness of the Military Academy that its students are selected from special classes and frequently through favoritism. This allegation was effectually refuted by the Board of Visitors for 1887 in a table showing the occupation of the parents of cadets admitted for the period embraced from 1842 to 1887. In presenting the table the Board very justly said that "the Corps of Cadets is a typical representative body of the American people. The lower House of Congress is not more representative in this respect than the Corps of Cadets." An examination of the table shows that cadets are drawn from all ranks and classes of the people. We have supplemented the table in the report for 1887 by another which covers the intervening years, including the present year, thus preserving the statistics on this subject from 1842 to 1891, a period of 50 years.

The following table shows the occupations of the parents of candidates for admission to the Academy for 1887, 1888, 1889, 1890, and 1891:

Occupations.	Number.	Occupations.	Number.
Agents	15	Musician (band leader)	1
Architects	1	Marble dealer	1
Artists	2	No occupation	7
Bankers	2	Officers of the Army	43
Bank officers (6 of them bankers)	12	Officers of the Navy	4
Barber	1	Oil producer	1
Brewer	1	Physicians	50
Brokers	6	Pilot	1
Builders	3	Policemen	2
Clergymen	11	Politician	1
Clerks	17	Presidents of Insurance Company	3
Collectors	2	Printers	6
Commercial travelers	4	Professors	2
Contractors	8	Publisher	1
County officers	5	Ranchmen	2
Dentist	1	Real estate	7
Editors	9	Railroad officers	8
Engineers, civil	6	Salesman	1
Engineers, mechanical	6	School teachers	6
Farmers and planters	145	State officers	4
General business	5	Stock dealers (cattle)	4
Hotel keepers	8	Superintendent of gas works	2
Insurance business	5	Steamboating	1
Laborers	5	Unknown	2
Lawyers and judges	80	U. S. civil officers	6
Liveryman	1	Druggists	3
Lumbermen	3	Dairyman	1
Manufacturers	19	Bookkeepers	5
Mechanics	38	Librarian	1
Members of Congress	5	Postmasters	3
Merchants	92	President of Steam Heating Company	1
Millers	2	Fishing master	1
Mining	4		

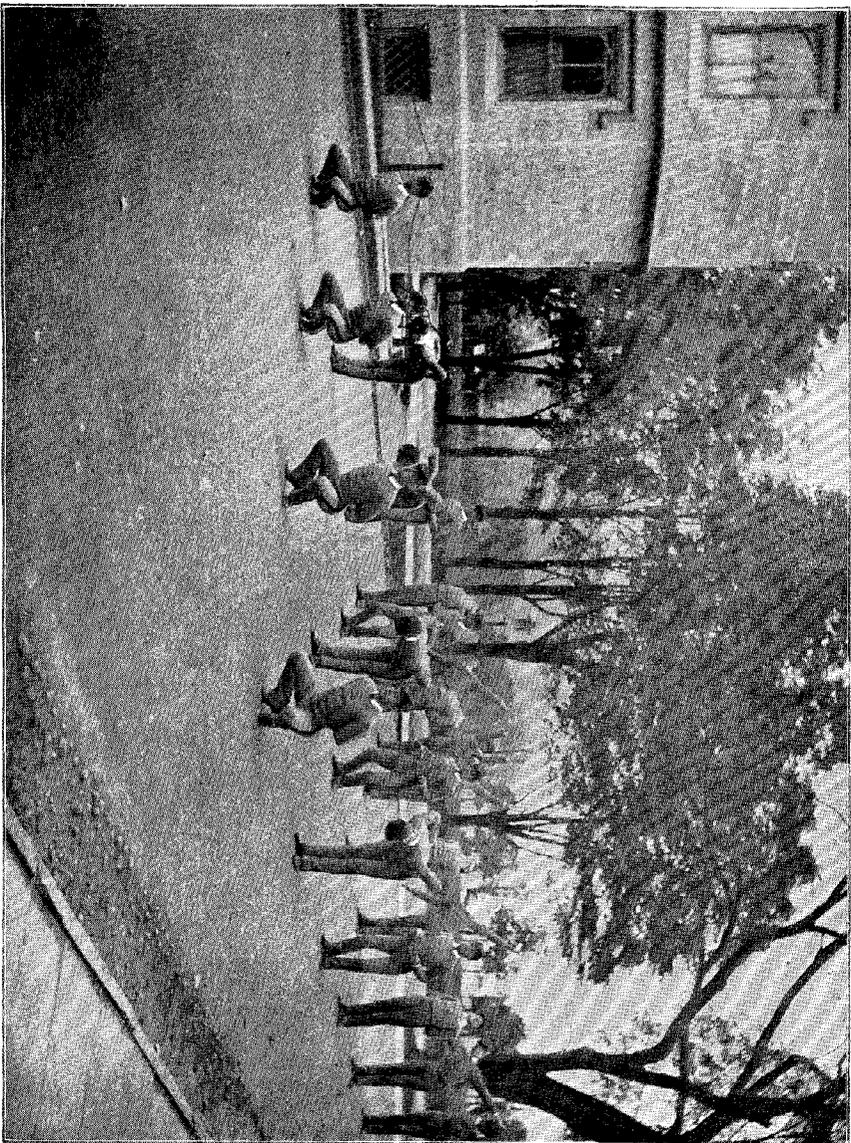
DISCIPLINE AND INSTRUCTION.

Committee on Discipline and Instruction.—Messrs. JAMES T. MURFEE, FRANK A. O'BRIEN, and THEODORE S. PECK.

THE DEPARTMENT OF MODERN LANGUAGES.

In the choice of professors for the Military Academy the practice has obtained of limiting the selection to officers of the Army. When the chair to be filled bears an intimate relation to the science of war, this is a highly proper and prudent course to follow, but it is the reverse when the vacancy to be filled is the head of one of the departments which do not necessarily sustain such relationship. It can not be successfully contended that a man should be selected as a professor of modern languages, of ethics, or of drawing, primarily because he has been a successful soldier and an accomplished master of strategy. The construction of roads and bridges, the erection of fortifications, the fabrication of guns, or the movement of large armies, have no relation to the construction of syntax nor the conjugation of verbs. To take a man from the Army because of his rank and abilities as a soldier, and make him professor of modern languages at the Military Academy, is a proposition so absurd that many persons will doubtless express surprise that it should be even stated in this Report. Yet such has been the practice of the War Department in this connection, and unless the honorable Secretary of War directs the attention of the President to this important matter, and urges a change in the custom that has obtained, there is reason to apprehend that it will be used to convert a good soldier into an incompetent professor within a very short period of time.

On the 31st of August, 1892, the present professor of modern languages, Col. George L. Andrews, will be retired on account of age. Already a large number of officers of the Army are putting forth efforts to have themselves named for the prospective vacancy. It is perhaps safe to say that few, if any, of these military applicants, however able, accomplished, and distinguished as soldiers, possess the qualifications, attainments, and training to properly discharge the duties of so important and responsible a position. It does not follow that the qualifications and attainments of the high order required to make a competent professor of modern languages are not to be found in the U. S. Army, but there is very slight probability of such a discovery being made, and it is absolutely certain that, if any one of the leading colleges or academies of the country were in need of a professor of lan-



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"SETTING-UP" DRILL.

Stoddard, Glens Falls, N. Y.

guages or a professor of drawing, it would never occur to those having the responsibility of selection to search the ranks of the Army for the required talent and experience.

A scholar and not a scientist, a rhetorician rather than a mathematician, is demanded at the Military Academy at the head of the Department of Modern Languages. Such a man would be the active agent of not only adding efficiency to the instruction in French and Spanish, but would naturally strengthen the instruction in English, which is now so indifferently regarded by the authorities as to be limited to the first year and ranked with Spanish at the minimum value. We agree with Professor Andrews that more time should be given to the study of English, and we believe if a properly qualified teacher be selected to succeed to the head of the Department of Modern Languages he would so manage that more time would be devoted to the study of English without adding to the present mental burden of the cadet. The deficiency in English at the Academy is made painfully apparent to all who attend the annual examinations, and has been a theme for annual comment and deprecation by the Board of Visitors. Young men are admitted to the Military Academy at the age of 17 years, in a majority of cases with no education other than that afforded by the public schools; and yet these young men, after brief study and occasional recitations from such elementary books as Whitney's *Essentials of English Grammar*, Hart's *Manual of Rhetoric and Composition*, Abbott and Seeley's *English Lessons for English People*, and Abbott's *How to Write Clearly*, are finished in English and graduated in that study at the expiration of 10 months. The value placed upon the study of English by the Academic Board may be inferred from the brief time devoted to its study, and this estimate is emphasized by the fact that in the mathematical measurement of the entire four years' course of studies, which is placed at the maximum of 2300, English is rated at 75. These facts in themselves furnish the most urgent reasons for abandoning the policy of selecting soldiers for professors of such departments at the Military Academy as have no relation to the science of war, and appeal for the introduction to the Academic Board of men from the leading colleges of the country who are known to be fully qualified for the successful performance of the duties involved.

We would not exclude the Army from the field of selection, but unless a man can be discovered there who is equipped with a thorough knowledge of the branches to be taught, who has had experience in teaching, and who is known to possess those qualities of mind necessary to the successful instruction of youth, we recommend that the President look beyond the Army for a man to succeed Professor Andrews when that officer retires from active service. There may have been reasons in former years for selecting all the professors for the Military Academy from the Army. There surely can be no reason now for continuing that policy. In addition to the manifest propriety

of such a selection as herein advocated, we believe that the best interests of the Academy and of the Army would be promoted by adding to the Academic Board learned men from civil life, who would bring to that body the ideas and methods prevalent in the leading colleges of the country, whenever this can be done without trenching upon those departments that have strict relation to the science of war.

The Board of Visitors, after careful investigation and reflection, agrees with the opinion expressed by nearly every preceding Board, that the present course of studies should not be increased by the addition of a single page, but we can not resist the conviction that more time should be devoted to the study of the English language. "The officer ought to know at least something of French and Spanish" says the report of the Board of Visitors for 1889, "but if either or both of these tongues are to compete with English we unhesitatingly give our preference to the last. We do not think they need to conflict. In speech the Frenchman and the Spaniard are coming to us far more rapidly than we can go to them. It is argued that the Spaniard is our neighbor, but it would seem that we are also his neighbors. It has been argued also that an officer once owed his life to the fact that he understood the language of his Spanish captors. The same might be true with respect to any of the once formidable Indian dialects. We are inclined to suggest as to the Latin that it is the mother of the Spanish, the French, the Italian, and the Portuguese, as well as the resistless key to the technical terms, and to the specific nomenclatures which are the shorthand of science and are as obscure to the non-Latin scholar as they are clear to him who unlocks their simple secrets. In addition to all this the Latin is one of the keys to English, and the general many-sided arguments thus hinted with respect to the Latin language need not turn its back to the foes of the study of that and other dead languages. Though dead, it yet speaketh, and is mighty to open dumb mouths, whether in French, Spanish, or English. Retain the French and the Spanish, but not at the expense of the English."

THE STUDY OF SPANISH.

In the discussion of the curriculum of the Academy the attention of the Board was specially directed to the study of the Spanish language by reason of the fact that a member of the first class was pronounced deficient in that study. The Spanish language is taught only during the fourth or last year of the course, and is embraced in sixty lessons. It seemed to the Board that a young man who had been successful in all other studies should not be deprived of a diploma because he failed to reach a prescribed mark in a branch which is regarded as of so little consequence by the Academic Board that its study is limited to a few months at the end of the term, and its value in the course expressed by 75 in a total of 2,300, which is the maximum value of the four years course at the Academy. The deficient in this case was given a second

examination in August, which he passed with credit, and was sent out with the diploma of the institution and the usual recommendation for appointment to the grade of second lieutenant in the Army.

We are not prepared to say that the study of Spanish at the Academy should be eliminated from the course, but unless more attention be given that study it would seem that the time thus consumed might be advantageously devoted to either English or French. Whether the study of Spanish as prescribed at the Academy is profitable is a debatable question and one upon which opinion among army officers is divided. Colonel Thayer, in the paper quoted in this report, recommended that "the Spanish language be stricken from the regular course of studies and taught only as a voluntary study to such cadets as, in the opinion of the Academic Board, are capable from previous acquirements of pursuing the study without detriment in their progress in the obligatory studies." This would be better than the present plan, for the reason that under it some cadets would learn Spanish while now none do. It is not contended that the amount of Spanish acquired in the six months it is taught at the Academy has no real value, but it is believed that the limited elementary knowledge thus acquired does not wholly compensate for the time consumed in a course of studies that is already overcrowded.

It is doubtful whether any graduate ever left the Academy who could carry on a colloquy in Spanish as the result of the teaching at the institution. Officers of the Army have acquired a speaking knowledge of Spanish by contact with it while serving on the Mexican frontier, and among those Indians in the southwestern Territories by whom the language is spoken. But this is true of officers who were not educated at the Military Academy. We believe that a speaking knowledge of the Spanish language, or such knowledge as would enable the graduate to readily become proficient in that language after leaving the Academy, would be important and valuable, and particularly at the present time, when we are about to assume more intimate relations with our Spanish-speaking neighbors, and therefore recommend that greater time and attention be given it; but if this can not be done, that it be stricken from the course of studies and taught only as a voluntary study, as recommended by Colonel Thayer.

In this connection the Board specially directs attention to the fact that none of the instructors in the Department of Modern Languages have a speaking knowledge of either French or Spanish, the two modern languages taught at the Academy. The ability to speak these languages does not seem to be regarded as essential in an instructor at West Point. The French language is studied during the second half of the first and all of the second year at the Academy, the purpose being to enable its graduates to read and translate French into English. "No more time should be bestowed upon it (the French language) at West Point," said Colonel Thayer, "than would enable

the pupil to read French with facility and without the help of a dictionary." Hence it is perhaps that little, if any, inquiry is made as to the extent of linguistic knowledge possessed when an officer is detailed as assistant professor or assistant instructor of modern languages at West Point.

The present head of this department, Prof. George L. Andrews, is efficient, painstaking, and enthusiastic in the administration of his department, and has labored faithfully for its advancement. Upon invitation of the Board, Professor Andrews attended one of its sessions and discussed the affairs of his department. He believes, and several of us agree with him, that too much time has been absorbed by the mathematical branches at the expense and to the detriment of the others, and that steps should be taken to revise the course of studies by a competent commission with a view of allotting to each department of study a more equitable portion of time than is now allotted. The Board believes that there is urgent need for a revision of the course of studies and for the establishment of a permanent supervisory authority, independent of the Academic Board, to regulate the studies from time to time in some manner similar to that proposed in the report of Colonel Thayer. We agree with Professor Andrews that no Board of Visitors, in their very limited time, can give proper consideration to the important questions involved in a change of studies, and therefore recommend that a commission be appointed for that purpose to be composed of experienced educators of acknowledged learning and ability, of whom not more than two should be graduates of the Military Academy on the active list of the Army, other than professors of that institution.

VIEWS OF PROF. GEORGE L. ANDREWS.

At the request of the secretary, Prof. George L. Andrews prepared the following letter as the substance of the views presented by him verbally before the Board of Visitors:

U. S. MILITARY ACADEMY,
West Point, N. Y., July 27, 1891.

Maj. JOHN M. CARSON,

Secretary of the Board of Visitors, Washington, D. C.:

DEAR SIR: In compliance with the request in your letter of July 20, I make in brief the following statement of my views respecting the propriety of making changes in the present course of studies at the Academy, a statement embodying the substance of what I said, on the occasion to which you refer, in reply to questions from members of the Board of Visitors.

It should seem that a fair amount of liberal culture is a necessary preliminary to the proper study of the military profession. And it is to be considered that most candidates for admission to the Academy are not well qualified to enter even an ordinary high school. What the law requires for admission is wholly insufficient to secure satisfactory attainments on their part. There are admitted some who have not been at school for years. The year between appointment and admission is too short a time in which to make up considerable deficiencies, and is mostly employed in cramming for examination. Under the present system of selection and appointment, with

the prevalent opinion respecting poor districts and poor boys, it is not probable that there will be at present much improvement in the qualifications of average candidates. Hence the course of studies at the Academy cannot be wholly or even mainly professional, and the Academy must have much the same function as the college; professional studies being pursued mostly in post-graduate schools and in the profession itself. In this respect the post-graduate schools of the Army now furnish facilities not formerly offered, though much needed. Moreover, the course at the Academy must be shaped with due regard to the attainments of persons admitted.

Most candidates have little knowledge of English, and no knowledge of any other language. In view of this fact, and of the amount of linguistic study usually regarded as necessary in even a fairly liberal education, it seems to me that the present proportion of that study at the Academy is by no means too large, and should be increased rather than diminished. As a disciplinary study, and as a most valuable aid to the proper study of English, Latin, when commenced at a sufficiently early age and pursued sufficiently far, is in my opinion preferable to any other foreign language. But at the age at which candidates are admitted, with their very inferior attainments, with no previous study of Latin, their linguistic training will best be through the study of modern languages, which are less difficult and require less time, while they are of greater direct utility. In respect of disciplinary and literary value, I think the best two foreign modern languages are French and German. Of these two, for the course at the Academy, I prefer French, as less difficult, requiring less time for satisfactory attainment, of about equal literary and professional value, and of more general utility. The proper study of both these languages would, in my opinion, require more time than could reasonably be allotted to the study of foreign languages at the Academy. Spanish is probably the least difficult of modern languages, yet differs in construction from English so much as to be valuable as a disciplinary study, especially to average cadets. Considering our long Mexican frontier and the increasing intercourse with Spanish-American countries, a knowledge of Spanish is of direct practical utility to the officer of the Army. In the military schools of France the study of German, and in the military schools of Germany the study of French, form an important part of the course. It is probable that two foreign languages will continue to form part of the course at the Academy, and under all the circumstances the two should in my opinion be French and Spanish. The time allotted to Spanish should be increased, so as to restore the former number of lessons, 112, instead of the present 60.

I think that the time given to English might be increased by the time now given to French the first year, about 60 lessons; leaving French to be studied only the second year. This would give to English 185 lessons instead of 125; and to French, 222 lessons instead of 282. And in teaching any foreign language at the Academy, a prominent object should be to enable the cadet to understand English more perfectly, and to use it with greater freedom. Battling with the difficulties and peculiarities of other languages, and especially with the difficulties of correct idiomatic translation, is one of the best aids to a mastery of our own language.

I would also suggest that the consideration that can be given to changes in the course of studies at the Academy by a Board of Visitors in their very limited time, and especially a consideration of changes in only one department of instruction, is quite insufficient. And, in my judgment, before any such changes are made, the whole subject of the course of studies at the Academy should be referred to a well selected, competent commission, for full consideration and for recommendation of such changes as may be found expedient. The commission should be specially appointed for the purpose, should be composed of persons well qualified to judge of the relative value and due proportion of studies, and should include two or more graduates of the Academy, selected so as to represent the different views in respect to the present course. For obvious reasons, the Academic Board is not adapted to the impartial, dispassionate consideration of the subject; but its members should be fully

heard by the commission. It is to be hoped that the commission would not, like the commission of 1860, be content with eliciting mere assertions or expressions of opinion on the part of persons called before it, but would inquire into the grounds on which such assertions or opinions were based. There has never been such a full consideration and discussion of this important matter as is here contemplated, and it should seem that the time for it had fully come. Whether the studies of the present course are in due proportion, and whether part of the time now given to mathematical and professional studies might not better be given to other, perhaps to new branches, are questions well worth considering and deciding.

Very respectfully, yours,

GEO. L. ANDREWS,
Professor of Modern Languages.

HEADQUARTERS U. S. MILITARY ACADEMY,
West Point, N. Y., July 28, 1891.

Respectfully forwarded to Maj. John M. Carson, secretary of Board of Visitors of U. S. Military Academy, Washington, D. C.

WM. F. SPURGIN,
Captain 21st Infantry, Acting Superintendent.

OPINIONS OF EMINENT EDUCATORS.

For the purpose of ascertaining the views of men competent to give testimony on this subject, and whose opinions, based upon actual experience in teaching, as well as their deservedly high reputation as men of learning, would have weight with the Federal authorities and influence with the people, the secretary addressed to a number of gentlemen actively connected with the leading colleges of the country, and with other educational institutions, the following letter:

WASHINGTON, D. C., *September 15, 1891.*

DEAR SIR: At the United States Military Academy, West Point, N. Y., in addition to departments that have close relations to the science of war, there are three—modern languages, drawing and history, geography and ethics—which are not intimately related to that science. The practice has obtained to select officers from the line and staff of the Army to the professorship of modern languages and of drawing. The Board of Visitors for this year believes that these two professorships should be filled by men thoroughly equipped for the discharge of the important duties involved; that such men are not likely to be found in the Army, and that, therefore, the President of the United States should select from civil life well-trained men of known ability for the two places named, when vacancies occur. The Board, therefore, instructed me, as secretary, to present its views on this subject in the report to be made to the Secretary of War and the two Houses of Congress.

The professor of modern languages will be placed on the retired list of the Army in August, 1892, as he will reach the age of 64 at that time. This department consists of one professor, two assistant professors, and three instructors, the assistant professors and instructors being officers of the Army detailed for and continued in this duty for a period of four years. English is taught the first year only, French the last half of the first and all of the second year, Spanish the last half of the fourth year, Spanish being limited to sixty lessons. The professor and assistants have not that acquaintance with French and Spanish required for conversation in those languages. The Military Academy does not pretend to give its students a speaking knowledge of these two languages, but limits its efforts to preparing them to translate without the aid of dictionaries.

The Board of Visitors believes that the best interests of the Academy demand that the department of modern languages should be reorganized and strengthened, and that at least the professor of that department should have a thorough knowledge of the languages taught. With the view of properly presenting this matter to the President, it is desired to obtain the opinions of gentlemen representing the educational interests of the country. You are respectfully requested, therefore, to furnish a letter for this purpose, briefly giving your opinion as to what steps should be taken on the points stated in this communication, and generally as to what, in your judgment, is required to improve and strengthen the department of modern languages. The report being in course of preparation, an early reply is solicited.

Very respectfully, yours,

JOHN M. CARSON,
Secretary Board Visitors, U. S. Military Academy.

All to whom this letter was sent did not respond; but the number and character of those who did, and the unanimity of sentiment which pervades their letters, will enable the President and the public to see that the recommendation of the Board in relation to the selection of professors at the Military Academy for departments not intimately associated with the teaching of the science of war should no longer be confined to the United States Army. Following are the replies received:

FROM PRESIDENT PEPPER, UNIVERSITY OF PENNSYLVANIA.

UNIVERSITY OF PENNSYLVANIA,
Philadelphia, September 28, 1891.

DEAR SIR: I feel that I can not do better, in replying to your letter of September 15, than to inclose you a note, prepared at my request by W. A. Lamberton, esq., Professor of Greek in the University of Pennsylvania, after an interview in regard to the subject of your query.

Yours, very truly,

WILLIAM PEPPER,
President.

JOHN M. CARSON, Esq.

PROFESSOR LAMBERTON, UNIVERSITY OF PENNSYLVANIA.

UNIVERSITY OF PENNSYLVANIA,
Philadelphia, September 22, 1891.

DEAR DR. PEPPER: Your note inclosing letter of inquiry as to modern languages in West Point only came into my hands this morning, as I had not been at the university for some days. I don't think there can be any doubt the Board of Visitors are right in their feeling that the department of modern languages at West Point should be in perfectly competent hands, *i. e.*, in the hands of men thoroughly equipped for their work. Whether such men are or are not likely to be found in the Army is a matter on which I have no information and so can not speak; but I do think that with a view to getting the right and fittest men there should be no restriction to the Army or any other list in the selection.

The idea of the instruction at the Military Academy seems to me very properly limited to the practical requisition of the two tongues mentioned, their acquisition for use in quite other directions than the linguistic. But I can see no object in limiting the degree of practical utility that is aimed at. It may not be, indeed I hardly think it is, possible to give what would be correctly called a speaking knowledge of

these tongues by class instruction in the time and under the circumstances contemplated. But as near an approach to that as possible should be aimed at. You will meet men, of course, who have no facility in French conversation, who yet can read French works with ease and never feel the need (or rarely) of having recourse to a dictionary; but I believe also that in the great majority of cases there will be found to be men who have at one time pushed their knowledge at least up to, if not over, the speaking limit. Lack of opportunity to use their knowledge in the way of conversation will have damaged its availability at a pinch, but a permanent result will have been attained in the clearness and accuracy with which a French sentence presented to them is by them apprehended in its full significance; this will be permanent for two reasons: First, because they will have reached a point in the study at which it is possible to call a halt without running a risk of falling back, they are not likely to lose the knowledge of words and idioms, though the readiness with which they seem to be turned to account in independent utterances may diminish because their "hands are out;" and secondly the possibility of constant reading is within every one's reach at all times.

The unfortunate side of saying we only want to train the boys so far that they may be able to read without dictionaries is this: It fosters in their minds a low aim, and the lower because they will interpret the words naturally in a lower sense than the authorities intend; they will inevitably, mentally if not outspokenly, insert the word "just" (barely) and translate into "just (barely) so far," etc. That is, their minds will be tempted to aim at the lowest limit of allowable attainment. This I think is to be deprecated for more reasons than one, chiefly, however, because, to put the lower reason first, the "barely sufficient" will in innumerable cases prove to be the *insufficient*; one gets a clear appreciation of the sense of a given passage just in proportion as one possesses a surplus of knowledge beyond what that passage calls for; and, worse than this, it in so far habituates the youth to low aims in all and every work. In my view, then, the effort of the Academy should be to bring the students as far forward in the road to speaking the languages as possible; the lower aim will be secured and can only be secured properly by aiming above it.

As to Spanish in particular I have had the impression, gained through conversation with a graduate of the Academy, that one main reason for instruction being given in it there lay in the existence of Spanish-America. If that is correct, it surprises me to hear that the aim in the study of that language is set so low and that so little time is given it. And in any case it is one of the languages of our own continent, and it looks more and more every day as if our Government would be the better for, if not have absolute need for, trained servants who possessed it thoroughly. However, I only throw this in as a hint; it goes perhaps beyond the scope of the inquiry.

The head of the Department, of course, should have a thorough knowledge of the languages, and, I would add, of the literature of them; but the subordinates should also have a thorough practical knowledge of them, a speaking knowledge and a grammatical knowledge. It is no paradox, but a mere truism, to say that in teaching the force that does the work comes from the surplus of knowledge that is not conveyed and not at the time to be conveyed to the learner. Here, as in everything else, it is the reserve force that tells and gives effectiveness to the work actually attempted. There will be plenty of room left for the professor's superiority and for the exercise of his guiding hand. Nor do I think that there will be any difficulty in finding applicants for the places in abundance who will possess all these requirements in ample measure.

It is difficult for one who does not know the details of the course at the Academy, and who knows, if possible, less of the way in which that course works and is worked, to speak on the question as to how the department should be reorganized and strengthened, beyond what concerns the personnel. One runs the risk of "beating the air" and suggesting plausible impossibilities. Still I must say that the time assigned to the languages seems to me lamentably inadequate, as far as I can estimate it.

Some means should be devised, perhaps by courses of reading in connection with the more technical department, by which French could be "kept up" or at least kept before the students' minds to the end of the course. And sixty lessons in Spanish reads very much like time thrown away when one recollects the proneness of students to imagine that a whole subject ends and is absolutely determined just where the threads of it are dropped in his course, and, more than this, the readiness with which a subject that must necessarily be left with the loose ends fades out of their minds; one can not but lament such letting drop of French after but a year and a half's study, and of Spanish after such a mere beginning can have been made. Such a limitation of French might be defended were the aims of the study educational and not practical; for the careful work that might have been done would, viewed as a work, not be lost; but, as the aim is a good reading knowledge, it is more than to be feared that, except in one or two extraordinary cases, reading knowledge will have to be acquired again or will be forever lost. For the limitation of Spanish to half a year and sixty lessons I can see no defense on any ground.

At the risk of suggesting what may prove but a complication to the adjustment desired, I would like to ask, what about German? Its importance as a language possessing a valuable scientific literature is now universally acknowledged, and I should imagine its value to the military student could hardly be denied, if for nothing else, for the reason that the remarkable staff reports of such a master of the art of war as Von Moltke are in that language.

As a practical suggestion, covering the whole, it occurs to me that the first step should be the selection of a man thoroughly qualified in the matter of the languages concerned, and endowed with that necessary common sense and adjustability to surrounding circumstances that will enable him to base his course, not merely upon a theoretical view of its aims and needs independently considered, but upon a comprehensive survey of the whole system of which it is to form a part. Such a man of competent knowledge and good judgment could alone and only too after appointment, when he should have had the possibility of studying the situation thoroughly and reporting upon it, offer a plan at once theoretically correct and practically "workable."

In consequence of the delay of the letter in reaching me, I have sat down at once to answer it, and it may be have not either in form or arrangement been able to avoid evidence of haste. My opinions, however, have not been formed hastily.

Very sincerely yours,

W. A. LAMBERTON.

PRESIDENT WARFIELD, LAFAYETTE COLLEGE.

LAFAYETTE COLLEGE,

Easton, Pa., September 16, 1891.

DEAR SIR: Your circular letter of inquiry has just reached me. I am glad to respond to your request, and, having some very close ties with the Army, I have long taken a warm interest in West Point. I shall try to answer your inquiries, though they are difficult to reply to succinctly, as they open up many mooted points.

(1) I prefer to have a department of modern languages directed by an American, especially if English is to be included.

(2) I prefer to have the foreign languages taught by natives of the country where the language is spoken.

(3) I regard German as most important, and have long wondered why it was not added to the curriculum at West Point.

If more than one language is to be taught by a single professor, it should be a cognate, or the instructor should be an American. The once common practice of a German or Frenchman teaching both German and French has much to condemn it. The American mind is usually more facile and freer from linguistic prejudices than is to be found in any foreigner, and the practical purpose of the Military Academy appeals to an American temperament more strongly than to the slower German and more

imaginative Frenchman. I have studied German, French, and Italian abroad, and the first two in this country, and I am confident that a teacher of foreign languages should at least have had several years' foreign residence. Were I organizing such a department, I should want a graduate of a good American college, with foreign post-graduate training, at the head, a French and a German assistant, and instructors of ordinary linguistic training. Of course, no man should try to teach French who is not a good Latin scholar. A wide acquaintance among young army officers leads me to think that English is taught little, if at all, at the Point.

Very truly,

E. D. WARFIELD.

JOHN M. CARSON, Esq.,

Secretary Board of Visitors, U. S. Military Academy, Washington, D. C.

PROFESSOR COPPÉE, LEHIGH UNIVERSITY.

THE LEHIGH UNIVERSITY,

South Bethlehem, Pa., September 15, 1891.

DEAR SIR: I have received your circular concerning the department of modern languages at West Point. The knowledge upon which my answer is based is three-fold: First. I am a graduate of West Point of the class of '45, and had practical knowledge of the department, as then organized, from the point of view of a cadet. Second. I was stationed at West Point as a teacher of French in 1849-'50, during the time of Professor Agnel, who was an admirable teacher. Third. I was a member of the Board of Visitors of 1868, and we examined that carefully among other subjects of instruction.

The department, originally that of French alone, was changed by title into that of modern languages, when, upon the retirement of the professor of Spanish, both languages were placed under one professor. The title is misleading and unjust. A department of modern languages in our older institutions of learning is intended to include many of the modern languages and to give some instruction as to the literature of these languages; whereas in the department at West Point, French and Spanish only are taught, and that grammatically, and no knowledge of their literatures is imparted. I have always believed that in the time allotted to French more progress could be made than has been, and that by forming conversation classes half the students might be taught to speak it reasonably well. There is besides such a wealth of military knowledge contained in French that too much care cannot be taken for the cultivation of that language. The introduction of Spanish was mainly designed to teach officers to speak it, as its military history is nil. It is so simple a language and so easily acquired by a young officer that I regard it of little importance in the course at West Point. The same time devoted to German, which is so rich in military lore, would be really useful and valuable. I think it of the utmost importance that the professor of French should be either a Frenchman or so thoroughly and practically acquainted with the language as to speak it on all topics with the utmost fluency. To say nothing farther, it is humiliating to the country and the Army when distinguished Frenchmen, especially military, visit West Point, that the professor and his assistants should not be able to converse fluently with them on all subjects. Your circular is a very timely one, and I hope will elicit numerous replies.

In conclusion, my judgment is: First, the professor should be a thoroughly educated Frenchman or an American to whom French is a second vernacular. Second, that German should take the place of Spanish and that more time should be given to it. Third, that there should be a brief course of lectures, at least on French and German literatures. And, fourth, that the title of the department should be the Department of French and German.

Very faithfully yours,

HENRY COPPÉE, LL. D.,
Professor in the Lehigh University.

JOHN M. CARSON, Esq.

PRESIDENT JESSE, UNIVERSITY OF MISSOURI.

UNIVERSITY OF THE STATE OF MISSOURI,

PRESIDENT'S OFFICE,

Columbia, Mo., September 21, 1891.

DEAR SIR: As my opinion has been asked in regard to the teaching of modern languages in the U. S. Military Academy, I take this opportunity of addressing to you my views on the question. Detailed specification is dangerous when offered by those that do not view the ground daily; but I will say freely and emphatically that more English should be taught at the Military Academy than has ever been provided for hitherto. This much I will say unconditionally; and, furthermore, it would take weighty objection to convince me that, in some form, it should not continue through the four years' course. With Latin and Greek wholly omitted, French, German, and Spanish should, in my opinion, be taught; and the instruction should end not in reading alone, but in some aptitude in conversation. I have had much experience, during a residence of thirteen years in New Orleans, in this matter of teaching pupils to speak and understand speech in foreign languages. The result is a firm conviction that all that is necessary is a reasonable amount of time and thorough qualification in the teacher. The chief troubles are (1) the quackery of men who insist that these results can be reached in incredibly short periods of time and without the aid of sharp grammatical study; (2) the utter lack of qualification in the teachers of modern (foreign) languages, in most cases. Great caution is necessary in speaking of these matters by reason of (1) the old fogysm of the (so-called) grammatical method men, and (2) the quackery of many among the (so-called) natural method men. For women—fashionable young women—and children, the natural method is unquestionably best; but for people whose brains have received fair development and fair training a combination of both the grammatical method and also the natural method is the only true way.

I have looked with some care into this matter both in American and also in European schools. As I do not teach modern languages myself, but the classic only, I speak without personal interest in any form. It is necessary to add that serious teaching in English, French, German, and Spanish, superadded to what is already required in the Military Academy, would overcrowd the curriculum, starting where it now does. A raise would be indispensable perhaps in the standard of admission—say a year at least. I believe that professors could be found in many of our American colleges and universities amply qualified to teach modern (foreign) languages seriously. Either some of these civilians should be employed to raise the teaching to the proper plane, or Army officers should have scholarships for study in Europe that they may prepare themselves thoroughly for this work. We schoolmen should never forget that the Military Academy is not designed to be a school of languages or of science, but aims to turn out good officers and military engineers. History proves that it has reached these aims nobly. None of us should also forget how thorough the instruction is within the appointed range. None of us should try to extend the range so far as to destroy the design of the school. But nevertheless, in full view of all of these considerations, I still hold that more time and pains should be given to English, French, German, and Spanish, even though that should necessitate a raising of the standard of admission by a year or a year and a half.

It would be impertinent for me to speak thus candidly, except under direct invitation. I have accepted the invitation and spoken frankly but respectfully. Surely I have had no disrespectful intent towards anything, or any person, or any class of persons; moreover, I have no personal or official interest whatsoever in the matter.

I am, very respectfully, yours,

R. H. JESSE,
President.

JOHN M. CARSON, Esq.,
Secretary Board of Visitors, U. S. Military Academy.

UNITED STATES MILITARY ACADEMY.

PRESIDENT HYDE, BOWDOIN COLLEGE:

BOWDOIN COLLEGE,
Brunswick, Me., September 26, 1891.

DEAR SIR: In reply to your inquiry of the 24th instant, permit me to express the opinion that the only sound educational policy in the matter of appointments is to secure the best available men in the department which is to be filled, and that proficiency in that department is the main thing, and all other considerations should be secondary and subordinate.

The introduction of two or three men who are alive to the human as distinct from the professional aspects of literature, language, and ethics, would do much to broaden and deepen the training imparted at the Military Academy, and make the cadets at the same time better soldiers and better men.

Very truly, yours,

WM. DEW. HYDE.

Mr. JOHN M. CARSON,
Secretary Board of Visitors, U. S. Military Academy.

PRESIDENT ELIOT, HARVARD UNIVERSITY.

HARVARD UNIVERSITY,
Cambridge, Mass., September 18, 1891.

DEAR SIR: The problem to which your circular of September 15 relates is a difficult one. A civilian professor of modern languages at West Point, with none but Army assistants would, in my opinion, be in an untenable position. On the other hand, if the department were wholly made up of civilians, it might not command the cordial support of the rest of the academic staff.

I should think that the Board of Visitors might wisely confine itself to exhibiting clearly the weakness of the present organization of the department of modern languages, and to calling on the teaching staff of the Academy and the Secretary of War to devise a thorough remedy.

Very truly, yours,

CHARLES W. ELLIOT.

Mr. JOHN M. CARSON,
Secretary.

PRESIDENT WARREN, BOSTON UNIVERSITY.

BOSTON UNIVERSITY, PRESIDENT'S OFFICE,
Boston, September 19, 1891.

MY DEAR SIR: I have the honor to acknowledge your kind communication of September 15. It reaches me, however, at a time when I am so preoccupied with the duties connected with the opening of our different schools and colleges that I feel unable to acquaint myself with all the facts which I should need to investigate in order to make an intelligent and useful recommendation upon the point submitted. I should the more regret it were I not assured that the Board of Visitors and those selected by them include so many able and experienced men that the right decision seems quite sure to be reached.

Yours, very respectfully,

W. F. WARREN.

Mr. JOHN M. CARSON,
517 Fourteenth Street, Washington, D. C.

PRESIDENT HALL, CLARK UNIVERSITY.

CLARK UNIVERSITY,
Worcester, Mass., September 19, 1891.

MY DEAR SIR: In response to your circular letter of September 15, I have no hesitation in saying, upon your presentation of the facts, that the chief instructors

in the two departments named should be selected wherever the best knowledge of the subject and teaching ability combined can be found, with no reference to whether such instructors are men trained for military or civil life.

Sincerely yours,

G. STANLY HALL.

Hon. JOHN M. CARSON.

PRESIDENT ANDREWS, BROWN UNIVERSITY.

PRESIDENT'S ROOM, BROWN UNIVERSITY,
Providence, R. I., September 16, 1891.

MY DEAR SIR: It seems to me very clearly desirable that the professor of modern languages at West Point should have a perfect knowledge of German, French, and Italian, at least, and that the course in Spanish should be greatly extended. It is every way proper, and will sometimes be indispensable, for army officers to understand Spanish quite thoroughly. It might be possible to secure a military officer sufficiently well educated to be a suitable professor of modern languages, but it would probably be much easier to secure a civilian for that post.

Very truly, yours,

E. BENJ. ANDREWS,
President.

JOHN M. CARSON.

PRESIDENT ADAMS, CORNELL UNIVERSITY.

PRESIDENT'S ROOM, CORNELL UNIVERSITY,
Ithaca, N. Y., September 24, 1891.

DEAR SIR: In answer to your circular of September 15, I beg to say that, in my opinion, the chair of modern languages at West Point should be occupied by a man who has been specially trained for that purpose. I know not what particular reason there may be for any other course. To a man accustomed to education, the question seems capable of but one answer.

I am very truly, yours,

C. K. ADAMS.

Mr. JOHN M. CARSON,
Secretary Board of Visitors, U. S. Military Academy.

CHANCELLOR SNOW, UNIVERSITY OF KANSAS.

CHANCELLOR'S OFFICE, THE UNIVERSITY OF KANSAS,
Lawrence, September 23, 1891.

DEAR SIR: Your circular letter of the 15th instant is at hand. It goes without saying that the professor of modern languages in the U. S. Military Academy should have a thorough knowledge of the languages taught. Instruction in any branch can not be properly given without thorough preparation on the part of the instructors. I therefore sincerely hope that future appointments to the faculty of this Academy may be made upon the basis of the qualifications of the person appointed.

Yours, sincerely,

F. H. SNOW,
Chancellor.

Mr. JOHN M. CARSON,
Secretary Board of Visitors, U. S. Military Academy, Washington, D. C.

PRESIDENT NORTHRUP, UNIVERSITY OF MINNESOTA.

UNIVERSITY OF MINNESOTA, PRESIDENT'S OFFICE,
Minneapolis, Minn., September 19, 1891.

DEAR SIR: It is extremely desirable that students who study French and Spanish should learn to converse in those languages. In no institution does it appear to me

more important for the students to learn to converse in those tongues than in West Point. That they may so learn, they should have instructors who are masters of these languages and able to converse in them. If such instructors can be found in the Army, well; but, if they can not, proper persons outside of the Army should be selected as professors and assistants. I do not see that it makes much difference whether the professor of French is a warrior or not.

Very truly, yours,

CYRUS NORTHRUP,
President of University of Minnesota.

JOHN M. CARSON, Esq.

PRESIDENT CHAMBERLIN, UNIVERSITY OF WISCONSIN.

OFFICE OF THE PRESIDENT, UNIVERSITY OF WISCONSIN,
Madison, September 18, 1891.

DEAR SIR: In replying to your inquiry of the 15th instant, I beg leave to express the opinion that the first consideration in filling the professorships you name should be competency, and that, as they are nonmilitary, the filling of the positions should not be constrained by military lines. It would be my judgment, however, that preference should be given to officers of the Army, because I think it wise that they should be employed in such positions, and the reactionary effect of such employment upon the education and intellectual efforts of the officers of the Army would be beneficial.

Very respectfully, yours,

T. C. CHAMBERLIN.

JOHN M. CARSON, Esq.,

Secretary Board of Visitors, U. S. Military Academy, Washington, D. C.

PRESIDENT ANGELL, UNIVERSITY OF MICHIGAN.

UNIVERSITY OF MICHIGAN, PRESIDENT'S OFFICE,
Ann Arbor, October 7, 1891.

DEAR SIR: On my return from Europe I found your letter of September 5. In answer to it I desire to say it seems to me very important that modern languages should be thoroughly taught in the Military Academy at West Point, and especially that Spanish should receive much more attention. Inasmuch as the time and attention of the graduates are largely given to military pursuits, it would seem to me judicious that men accomplished in the modern languages should be taken from civil life to fill the chairs to which you refer.

Yours, truly,

JAMES B. ANGELL,
President.

Mr. JOHN M. CARSON,

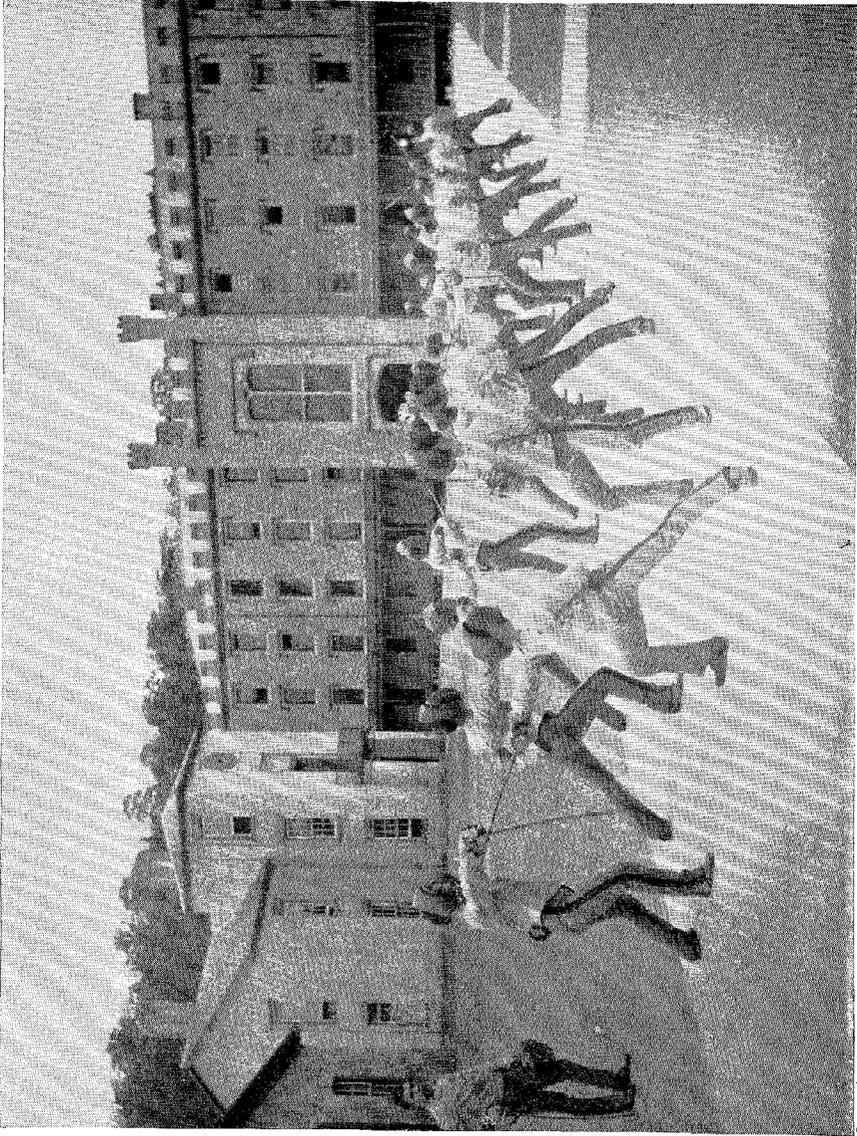
Washington, D. C.

PRESIDENT JOHNSTON, TULANE UNIVERSITY OF LOUISIANA.

NEW ORLEANS, October 9, 1891.

DEAR SIR: Your letter of September 15 was received by me on my return to this city only a few days ago, hence the delay in my reply.

You request my opinion as to the proper instruction in modern languages at West Point. I attach great importance to these branches, as will be seen by reference to the courses of study required in Tulane University. A competent knowledge of English, French, and German is required of every graduate of our college. French and German have each a professor, teaching his mother tongue, and fully qualified, and the instruction in English is divided between two highly accomplished professors. All of these professors are of full grade and salary. The languages are



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FENCING AT WILL.

Stoddard, Glens Falls, N. Y.

taught in their philological, literary, and historical aspects, and the students use them in the classroom. We give much attention to elocution and essays, and teach literature in literature by encouragement of reading the best models. Our catalogue will give you the details.

From your statement of the amount of instruction given at West Point, I must regard it as altogether superficial and inadequate. Language is the vehicle of thought at least, and is necessary for its expression, if not for its proper formulation. A man can not be called educated, in any sense, who has not been taught to read, write, and speak his own mother tongue with force and facility. This is especially the case with officers of the Army and Navy, who are constantly required to act and speak for the governments of the country. It seems to me that a knowledge of French and Spanish is very desirable for our officers; and for our engineers I should regard German as of the utmost importance. A speaking knowledge of French and Spanish are as important to the army officer as a reading knowledge of these languages.

I am, very respectfully, yours,

WILLIAM PRESTON JOHNSTON.

JOHN M. CARSON, Esq.,

Secretary Board of Visitors of U. S. Military Academy.

MILITARY DISCIPLINE AND INSTRUCTION.

The value and efficiency of the discipline that prevails at West Point is illustrated and emphasized by the every-day conduct of the individual cadet, and the thoroughness of the military instruction is attested by the perfection of movement in the corps, whether drilling on the "plain," or going through the ceremonies of parade on the ground set apart for infantry maneuvers. The results obtained by the West Point system of government is highly creditable to the authorities of the Academy. It is inflexible in nature, impartial in administration, and just in execution. The Board freely awards the highest commendation to the Superintendent and his assistants for maintaining the perfect state of discipline found at the Academy. Notwithstanding its severity it is tempered with kindness, and every cadet feels that should there be any mistake made in his "reports" for violation of orders or regulations he can appeal to the Commandant or Superintendent with the certainty of receiving patient hearing and fair treatment. Inquiry among cadets elicited no complaints as to the mode of administering discipline, and the cheerfulness exhibited at all times by them is evidence that they are not suffering from oppression.

OMISSIONS IN THE CAVALRY EXERCISES.

While the corps of cadets is thoroughly instructed in all field movements, certain details are omitted from the scheme of military instruction to which we respectfully direct the attention of the proper authorities. In the school of the soldier, mounted, the cadet receives no instruction in the care of horses. He never sees a horse groomed, and knows nothing about saddling and bridling, unless he obtained such information before entering the Academy. It seems to the Board that instruction on these points is essential. One of the first duties the

young mounted officer is called upon to perform after joining a troop or battery is the supervision of the feeding, grooming, and watering of the horses, and the bugle sounds "stables" as regularly as it sounds the "assembly." Yet a man may graduate at West Point and never see a horse groomed or fed, and join his troop with no practical knowledge of how to saddle and bridle a horse. The man charged with the supervision of this work can not intelligently perform his duty if ignorant of the methods and manner of performing it. It is true the young officer will learn by actual contact when assigned to a troop or battery how "stables" should be attended to, and will in like manner, from observation, learn how a horse should be saddled and bridled; but this may be said of a number of things taught at West Point, some of which are doubtless of less consequence to the military service and to the Government than those specifically referred to and not found in the scheme of military instruction. The Board believes that cadets should be given practical instruction in the care of horses; that they should be required to feed and groom horses for a period sufficiently long to enable them to acquire the needed knowledge, and that each cadet should be made to saddle and bridle his own horse when summoned for mounted drill. All this service is now performed by enlisted men of the cavalry detachment stationed at West Point, who also attend to the horses and harness for the light battery drill.

SHORT MARCHES IN SUMMER RECOMMENDED.

During the three summer months the corps is in camp all studies are suspended and the entire time devoted to practical military instruction. We suggest that during this period of encampment the corps be given occasional short marches into the adjacent country, in order that each individual cadet may know from experience what it is to march *en route*. In this connection the Board directs attention to the fact that the corps is not supplied with the equipage needed on the march or in the bivouac by a column of infantry, and that when a cadet leaves the Academy and joins a foot company in the Army he has no knowledge whatever of a knapsack, haversack, or canteen, and no idea of the number, character, or use of the several cooking utensils required by a marching column. In short, the cadet receives no practical instruction in this direction, that being left for acquirement after joining his command. It would not only relieve the monotony of camp life and duty as practiced at West Point, if the corps of cadets, with knapsacks packed and slung, haversacks and canteens suspended in the regulation fashion, should be made to perform a number of short marches into the adjacent country during the summer months, but these future officers would in this manner gain knowledge which would be invaluable, and the possession of which would enable them to appreciate the amount of labor performed and discomfort endured by enlisted men when on the march. Further than this, having this kind of knowledge, the more valuable

because acquired by experience, these future officers would know how to lighten the burdens of the soldier on the march, and how to make him comparatively comfortable in camp.

PRACTICAL INSTRUCTION VALUABLE TO CADETS.

While as a general rule it is true that much of the experience of life is acquired by the young officer after he receives his commission and enters upon active duty with troops, it is nevertheless a matter of importance that, pending his course of instruction at the Military Academy, he should acquire some practical knowledge of men and things, since all that comes to him of this nature during his military minority must prove of great value and utility. Discipline requires that the enlisted man shall be largely dependent in thought and action upon his immediate commanding officer, no matter what may be the disparity between them in age and experience. Therefore whatever instruction may be had at the Military Academy calculated to give the cadet an insight into the methods of advising and encouraging the enlisted man, tends to elevate the service by enhancing the confidence of troops in the wisdom, good intent, and personal and military merit of the officers under whom they serve.

In the discussion of this idea, General Philip H. Sheridan remarked to the writer of this report: "Show me a good captain and I will show you a good company. Good companies make good regiments; good regiments make good brigades." General Sheridan looked to the proper government and care of the enlisted man as the paramount essential in bringing troops to the highest order of perfection, and if the captain or commanding officer of the company were lacking in soldierly qualities, caring little or nothing for the comfort and discipline of the men, he knew that the company would fall below the proper standard of merit and usefulness.

REPORT OF THE COMMITTEE.

Following is the report of the committee on Discipline and Instruction, which was unanimously approved by the Board:

ROOMS OF THE BOARD OF VISITORS,
West Point, N. Y., June 6, 1891.

To the Board of Visitors:

The committee on Discipline and Instruction respectfully submit the following report:

(1) *Discipline.*—Discipline has the first place in the report of your committee, because upon its perfection depends all other excellence. If such is its importance, a clear definition is essential; and we must ask, What is discipline? It is such a treatment of the cadet as is suitable to make him a disciple or follower of the great military commanders who have preceded him and won glory and renown for themselves and for our country.

It accomplishes its purposes by training to act in accordance with rules. Hence our inquiry involves three questions: (1) What are the regulations of this Academy? (2) What is the character of the officers who administer these rules? (3) What are the results of their administration?

Of the regulations we can say that they deserve our profound respect, for they are the results of nearly a century's experience. They have constituted the rules of conduct that formed the characters of the great men who have graduated here. They have been adopted by military schools in all our States, and have influenced to a great or less extent the administration of many civil colleges. They are now more nearly perfect than ever before, because they provide for their own improvement. Judicious changes have been made all along their history, whenever experience clearly demonstrated the advantages of modifications.

The aim of these regulations is to train and develop the cadet's physical, moral, and intellectual nature. They treat his body so as to preserve its health, to develop its strength, to increase its power and activity, and to make it capable of such endurance as to undergo the great hardships the military service of the country demands. And his moral nature receives no less attention. The cadet is required to consider "duty the noblest word in the language." He is trained to eradicate selfishness from his character.

Such is the theory of discipline as seen in the laws of the Academy; but as laws are not practically valuable unless wisely and efficiently administered, we have inquired into the character and fidelity of the Superintendent, of the professors, and of the instructors. Personal intercourse with them, attendance upon their examinations, and inquiry into their methods of instruction satisfy your committee that they are thoroughly competent, painstaking, accurate, and faithful, and are fair in all their dealings. While they are firm in the discharge of duty and demand that every cadet shall reach the standard required, they are also exceedingly kind in spirit and in manner. They are soldiers and gentlemen, worthy of the imitation of the cadets under their charge. It is a wise provision of the regulations that the professors are to remain permanently at the Academy; and much will be gained by the school if the present Superintendent be kept here many years, for he undoubtedly possesses elements of administrative ability—kindness, firmness, tact, and magnetism—that are not easily duplicated; and the Academy should have the benefit of his character and his work for as long a time as practicable.

The vitality and virtue of any organism may be accurately judged by its power to perpetuate and reproduce itself. Judging by this standard of self-perpetuation and reproductive power, we see here the best evidence of the efficiency of the regulations, in the fact that under their method of filling vacancies the Academy is kept supplied with such a corps of officers as these we now find here.

We may further test the discipline and the officers by inquiring as to the product of their work. What is the outcome of all this expenditure of time and money? In answer to this question many schools might single out a few of their graduates who have attained eminence; and cite these as evidence of virtue in their methods. But this is an unsound argument; for a few such men can be made by self-application of their own native powers. An answer better than this can be given by the United States Military Academy—can be given here where the impress of the regulations and the skill and fidelity of the professors are indelibly marked on every cadet—has he been here six months or four years.

These officers seem to have in their minds the true conception of a great soldier—unselfish, courageous, truthful, accurate, bright, and manly—and out of the rough material given them they fashion the man into whose keeping the welfare, happiness, and safety of the nation may be intrusted. And like Michael Angelo, out of a stone they make an angel.

Hence on the matter of discipline we conclude: That the rules of the school, considered in the abstract—their aims and methods; that the professors and officers now on duty here—their character, scholarship, skill, and fidelity; that the results of the

regulations as administered—shown in physical, moral, and mental development of the cadet—all deserve the commendation of the Board of Visitors. Our Government and our people are to be congratulated, and they should be encouraged to maintain these laws and to support the administration of the Academy.

2. *Instruction.*—On the subject of instruction we may say that education is the impartation of knowledge in such a way as to give power to hold it, power to use it, power to communicate it, power to get other knowledge more easily and more rapidly. Hence two important elements are involved: (1) Knowledge getting; (2) power getting.

Therefore, to judge of the instruction given here, we must consider the curriculum and the methods of teaching. To judge of the curriculum we must be guided, not by standards of civil education, which prepare men for the pursuits of peace, but by military standards, which have reference to the arts of war. The adverse criticisms which have sometimes been made on this course of studies are, we think, due to looking at it from the civil standpoint, which is a wrong one, and if followed would militate against the usefulness of the Academy in its preparation of men for the Army.

We find the course of studies dual in nature—academic and professional—one part intended for mental discipline, and the other part for the practical duties of camp and field. Thus there is combined in one school and in one course of 4 years an amount of work such as does not obtain in any other institution. Those who criticise the Academy adversely, fail to consider the herculean task undertaken here and the short time allowed for its performance. The day may come in the history of the country when two separate institutions shall be given to this work and more time be allowed; or when the academic or fundamental training shall be thrown back upon the colleges of the country and this school occupy itself only with such studies as pertain to the profession of arms. But that day has not yet come; and until it does we must appreciate the amount of work that is done at the Academy and the results obtained in the short time allowed.

In the academic department we find:

1. An extensive course of pure mathematics.
2. An extensive course of natural and experimental philosophy.
3. A full course of chemistry, mineralogy, and geology.
4. A course of drawing of unusual excellence.
5. A course of three modern languages, one being English.
6. A department of history, geography, and ethics.

In the department of professional education we find:

1. Extensive courses of civil and military engineering.
2. Practical and theoretical courses in tactics—infantry, artillery, and cavalry.
3. Full course of ordnance and gunnery.
4. Full course of practical military engineering.
5. A department of law.

The standard for admission shows that the candidate is taken in and begins his course, knowing only arithmetic, English grammar, geography, and United States history. How one with such limited preparation can, in four short years, master such courses of general and professional education, is explained only when we consider the nature of the discipline and the fidelity of the professors.

But to comprehend fully all the results the characteristic method of military training must also be taken into account. Much is said in these modern times as to methods of education. Normal schools and colleges are established in all the States to teach methods; institutes are held throughout the country for the purpose of diffusing a knowledge of methods. But it may be apprehended that the true and logical meaning of the word "method" has been lost sight of, and the idea involved in the word "plan" has been substituted; for these so-called methods seem in many cases to be only plans, and are as if one teacher has his plan of piling sticks of wood and other teachers have theirs.

As we all know, there are but two logical methods of thought—the inductive and the deductive. When combined in the order named, they make the complete method. The skillful teacher uses these separately or combined, and in such order as best suits the subject to be taught and the pupils to be instructed. The soldier's method of teaching tactics is more nearly perfect than any other; for the wealth, power, and existence of nations depend upon tactical skill; and this skill depends on the methods and results of tactical education. By analyzing this tactical method, the professors in the Military Academy comprehend the model upon which all their departments are best formed. What are these elements of tactical instruction? The answer is exhibited daily on the drill ground. First, while the recruit is paying strict attention, the officer in his own person takes the position of the soldier or performs a movement with as much accuracy as possible, and then describes orally that position or movement. Second, the recruit is made to imitate the position or perform the movement as it has been represented in the person of the officer. Thus far the thought and the work are by the inductive method. The pupil observes carefully, comprehends the facts, and draws in his mind the rule of action. Finally, he is made to execute, with many repetitions and under varying circumstances, similar positions and movements. This is deductive, and serves to broaden and make permanent in his mind the law and the application of the exercise.

Taken all together the method is complete and perfect, proceeding from the fact to the law, and from the law to its application. Every position of the soldier and all evolutions of the company and battalion are taught in this thorough manner. The result is, that besides learning tactics the cadet has established in his mind the best possible habit of thought; and this habit of thought makes him practical and rational in all departments; and when he comes to be a professor here in any branch of education, having been trained in this complete method, it is natural for him to use it in the class room; hence we find the spirit of this method throughout the Academy.

If we consider this method of teaching in its connection with the peculiar discipline of the school as administered by these faithful and efficient officers, we have a full explanation of the fact that at this Academy so much is learned in so short a time, and all is done in such a masterly way.

Recommendations.—Before concluding this report we make the following recommendations:

(1) That the Academic Board shall at the proper time readjust the departments of study in such a manner as to give more time to the English language and greater attention to its literature.

(2) That appropriations be made to increase the apparatus so as to equip every department fully and enable the professors to reach the minds of their pupils by object lessons.

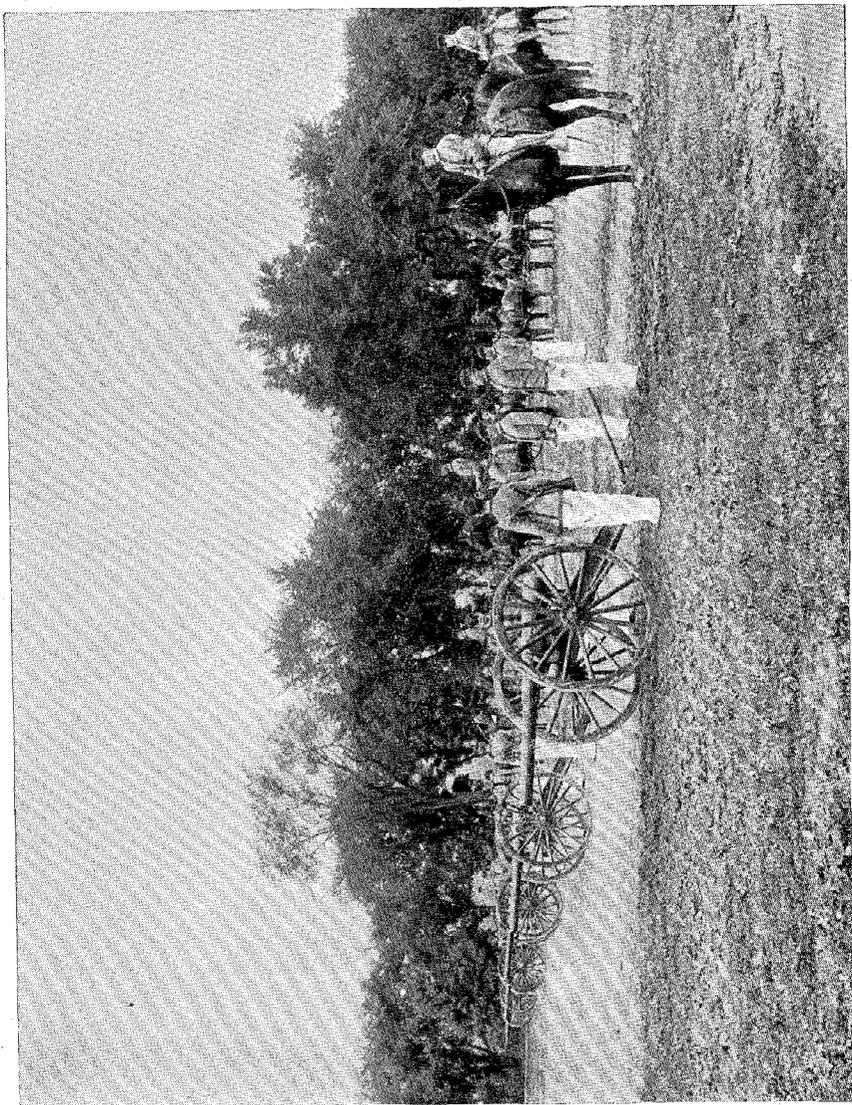
(3) We recommend that the instructor of the band be given the rank and pay of second lieutenant of infantry.

(4) That the membership of the band be raised to forty, 16 of whom to be in the first class and 24 to be in the second class.

(5) That enlisted men intended for field musicians be placed under the tuition of this professor of music for at least one year, so as to secure uniformity in field music throughout the Army.

In conclusion, we would suggest that no better service can be rendered our people than to make them acquainted with the superior character of the discipline of the United States Military Academy, with the excellence of its officers, with the thoroughness of their work, and with the high moral tone that pervades the entire school.

J. T. MURFEE,
FRANK A. O'BRIEN,
THEODORE S. PECK,
Committee.



ARTILLERY—IN BATTERY, PREPARED FOR ACTION.

ARMAMENT AND EQUIPMENT.

Committee on Armament and Equipment.—Messrs. THEODORE S. PECK, CHARLES F. MANDERSON, and JAMES A. WAYMIRE.

THE ARTILLERY BRANCH.

Every report made by the Board of Visitors for several years past has directed the attention of the authorities to the utter lack of proper arms and equipment at the Academy for instruction in field exercises, and earnest appeals have been made in these reports for improvement in this direction. This constant iteration has at last attracted attention and has resulted in securing within the last year a battery of six 3.2-inch steel breech-loading guns. With this exception the armament of the Academy consists of a lot of antiquated guns that should be sent to a museum of ordnance antiquities or utilized by being planted perpendicularly in the earth to the trunnions, to protect the grounds against trespass. Many of the guns are so weak that they can not be used for purposes of instruction, investigation having demonstrated that to fire them would be to endanger the lives of the cadets engaged as well as those of the bystanders who might be watching the drill. Their use, therefore, has been prudently discontinued, and this fact, known to the authorities at Washington through the last two reports of the Superintendent and the report of the last Board of Visitors, does not seem to have disturbed the serenity that prevails at the War Department, nor to have attracted sufficient attention to gain even a passing notice. Colonel Wilson, the Superintendent, in his annual report for 1889, directed attention to the bursting of one of the 30-pounder Parrott guns in April of that year, "whereby the lives of a number of cadets were endangered. Orders have been given," sentimentiously added the Superintendent, "that the guns of this battery shall not be again fired."

The artillery equipment of the Academy is thus catalogued:

A battery of seacoast guns, of which the cadets use two 15-inch smooth-bore guns, three 8-inch rifles (muzzle-loading), and one 13-inch (muzzle-loading) smooth-bore mortar.

A battery of six 30-pounder muzzle-loading rifles (Parrotts).

A battery of six siege mortars, three 8-inch and three 10-inch.

One battery of six 3-inch muzzle-loading rifles, used and partially equipped as a mounted battery.

One field battery of six 3-inch muzzle-loading rifles.

One battery of six 12-pounder (Napoleon) guns.

One battery of six 3.2-inch breech-loading steel rifles.

This is a formidable array of guns—on paper. To the educated soldier, however, this armanent appears ridiculous in repose and would present no terrors in action. The mortality from the use of such guns would be greater in their rear than in their front. Except the battery of 3.2-inch breech-loading steel rifles mounted on steel carriages, which was lately supplied, the guns above described are obsolete and many of them worthless for purposes of instruction. The old muzzle-loading field batteries should be retired from active service, used only for firing salutes, and replaced by guns similar to those in the field battery recently supplied.

In the seacoast battery no two guns are mounted on the same kind of carriage, each carriage doubtless representing a different epoch in the manufacture of gun-carriages. This might be called a "polyglot battery." With such an outfit there can not be any uniformity, efficiency, or satisfaction in the instruction. Lieutenant Hoskins, the senior instructor of artillery tactics, an enthusiastic and accomplished officer, said of these carriages that they "would be appropriately placed if under a case in the Ordnance Museum." The Ordnance Department may properly urge that modern guns can not be furnished the Academy until money and time can be secured to fabricate them; but this plea will not hold good in the case of this collection of diversified and antiquated carriages. The "cranes" are as variegated as the carriages and in strict keeping with them.

In his report for 1890 Superintendent Wilson complains that "the condition of the siege battery is much worse than that of the seacoast battery." Following the bursting of one of the guns of this battery the Ordnance Department, in October, 1889, condemned the battery and replaced it with a battery of 4½-inch rifled guns. In making this exchange the Government, having no modern guns of the required caliber, the Ordnance Department discovered another miscellaneous lot of antiquated and worn-out guns, and these are now in position at the Academy. Having a proper regard for the lives of the young men who would be required to work these guns, as well as consideration for the safety of the innocent people who are usually attracted by the firing, Colonel Wilson called for a history of these engines of double-ended destruction, and was informed by the Ordnance Department that it was "unknown." They had been "selected as the best of a lot on hand at the New York Arsenal, sent there from Washington some years before." These guns were used during the war of the rebellion, to what extent can not be ascertained, but it was known that "some guns of this pattern had recently burst."

There is a limit fixed by science and experience to the life of a gun, and it is dangerous to use it beyond that limit. These guns have evidently been used to that limit, perhaps beyond it. With a full appre-

ciation of his responsibility for the lives of those committed to his charge and having no faith in the old West Point tradition that "You can't kill a cadet," Colonel Wilson directed that the guns should not be fired at drill.

Until the Government can supply the Academy with modern guns to take the place of the antiquities now in position in the seacoast and siege batteries, we recommend that these two worse than useless batteries be dismantled, and that wooden guns, fashioned after the latest approved models and furnished with modern carriages and cranes, be mounted in their stead. Such a course would not avert the ridicule to which the United States is now justly subjected by maintaining obsolete armament in these two batteries for the instruction of future officers of its Army, but it would furnish evidence that our military men are cognizant of the fact that progress has been made in the fabrication of great guns and that they fully appreciate the importance and value of the improvements. In addition to this, wooden models of modern fashion would at least give the cadets an idea of the kind of guns likely to be used in warfare and of the methods employed in serving them.

MAXIM AND HOTCHKISS GUNS.

We recommend that a Maxim machine gun and a Hotchkiss rapid-fire gun be provided. Both these guns are now generally used in the armies of Europe. It is estimated that the sum of \$5,000 would procure one each of these guns complete with a supply of ammunition for target practice. The Government should certainly furnish the Military Academy with at least one each of these modern guns. Capt. Henry Metcalf, of the Ordnance Department, instructor of ordnance and gunnery, thus describes these two guns:

The Maxim is a gun of American invention, made in England for want of a market here and capable of firing automatically at the rate of eleven shots a second. It uses musket ammunition. Once discharged by the trigger it continues as long as the ammunition chest is filled, so that the gunner can play it like a hose. It has many great ballistic and tactical advantages and promises to supplant entirely the famous Gatling gun. I consider it the most important invention in firearms within the last 20 years. This at the present rate of progress means a good deal.

The other gun, the Hotchkiss rapid-fire gun, is a cannon varying from 1 to 33 pounder caliber, which uses ammunition like that employed in small arms, but of enormous size. The largest cartridge shells are about 4 feet long. It can be fired by hand at the rate of from twenty-five to ten rounds per minute, the rapidity in this case depending mainly upon the use of the peculiar ammunition. This gun, also an American invention, made, for the same reasons as the Maxim, in a foreign country, has almost revolutionized the construction of a large class of foreign fleets. It is eminently adapted to the transformation of a mercantile marine, and in the event of a foreign war would have an important part to play both on shore and afloat.

NEED OF AN ARTILLERY DETACHMENT.

We recommend that a body of artillery soldiers sufficient in number to serve the light battery, detailed from the Army or enlisted for the purpose, preferably the latter, be assigned to the Academy. There are

detachments of engineers and cavalry for the performance of the duty special to each of those branches, and a similar force should be furnished for artillery duty and given the same status as that occupied by the two detachments of engineers and cavalry. This is urgently needed, and the necessity for it has been frequently set forth in official reports from the Academy. The cavalry detachment, in addition to duty as cavalry, is required to perform duty with the light battery as artillerymen. In order to improve the cadet artillery department it has been urged that a light battery, detailed from one of the artillery regiments of the Army, should be stationed at West Point, in order that the cadets might witness the evolutions of a well-drilled field battery and at all times have at hand a well-equipped battery which could be used by them. We do not believe it would be advantageous to the Academy to station a regular light battery at West Point. On the one hand, such a battery would be accompanied by a full complement of officers, for whom suitable quarters would have to be provided, and, as the number of habitable dwellings is now inadequate to the necessities of the post, houses would have to be erected for the officers of the light battery. Being an independent command, barracks for the men and stables for the horses would have to be provided. In addition to this, many difficulties and annoyances would be constantly arising growing out of the anomalous situation of having a battery of guns divided in practical ownership and subject to the call of the commandant of cadets and the commanding officer of the battery. And it should not be overlooked, in this connection, that the officers serving with our light batteries are themselves under instruction and assigned to light batteries specially for this purpose.

On the other hand, to supply the artillery branch with the necessary horses and men preserves the autonomy of the artillery of the Academy, promotes its efficiency as one of the educational branches, makes it what it should be as a cadet battery, and saves the expense which would be involved in providing accommodations for a light battery from the Army.

THE CAVALRY BRANCH.

The deficiency in the cavalry branch of the tactical department is not so serious nor so discreditable as in the artillery, but is sufficiently obvious as to demand early correction. As in the case of the artillery, the Superintendent of the Academy and former Boards of Visitors have for several years regularly directed attention to this matter. Nothing can be added to what has been urged by our predecessors calculated to give greater weight to the importance and urgent necessity of supplying the Academy with a sufficient number of horses to meet the requirements of both cavalry and artillery instruction. The stud of the Academy consists of about eighty horses. These are purchased primarily for cavalry exercises, but are used as draft animals also.

This double service destroys the horses for efficiency in either branch, and seriously interferes with instruction in both. Horses should be purchased and kept for the exclusive use of the artillery teams, so that those for the cavalry could be brought to and maintained at a high state of training for riding and for all mounted exercises and drills. About fifty additional horses would be sufficient to do this. The original expenditure necessary would be comparatively small. The resulting advantages to the Academy and the Army would be beyond all proportion to the outlay. Two years ago Capt. J. H. Dorst, of the Fourth United States Cavalry, then senior instructor in cavalry tactics, in directing attention to this matter, said:

The cavalry branch of the Army has been making rapid improvements recently in the methods of instruction, and more improvements are certain to come. In one respect they will be based on much higher training of the horse. Instead of using him merely as a means of transportation, he will be taught to be far more docile and obedient to the rider, when ridden either alone or in ranks. The higher the training of the horse as a saddle animal, the more and more does he become unfit for draft purposes, and the more are his usefulness and docility as a saddle horse impaired by using him for draft. The instruction here should at least be kept abreast of that in the service, but if no change is made the instruction in the service will soon surpass that at West Point. Orders have already been issued from the War Department, reducing the maximum limit of age for cavalry recruits to thirty years, and there is hardly a doubt that in time it will be reduced still more, so as to enlist only men young enough to learn riding readily. In the school of the trooper and riding-hall exercises, the cadets surpass any soldiers in the Army, but with the concentration of troops at large and permanent posts, gymnasiums, and riding schools will be established, and, with limited time for instruction allowed here, it may be more difficult for the cadets to maintain their superiority. The average troop of cavalry can now drill much better in the school of the company than the cadets, for the latter have only three days in the week, during the month of April in each year, for such drill, and that drill is practiced under difficulties, for on the same days the horses are used for artillery drill in the afternoon.

In April, 1888, writing upon the same subject, Captain Dorst said :

Forty-eight horses are required for the artillery teams, and among eighty horses here there is always more or less difficulty in finding forty-eight that will work together, while some nervous and spirited ones are unsafe to work in harness at all. By using the horses alternately for draft and saddle purposes they become unfit for the latter. As an example, upon commencing cavalry drill with the first class last September I was astonished to see how restive, nervous and disobedient the horses were, and could not account for it. They had been used at light-battery drill in August. By the end of September they became tolerably quiet, but in October the battery drill was resumed. I saw the horses made to throw themselves into the collars; charge at speed across the plains; then made to hold back suddenly, while their mouths were sawed to bring them to a halt. As a consequence the mouth that had been made sensitive by delicate handling and quiet treatment was spoiled; an even, quiet gait was replaced by a dancing, unsteady one; nervousness and fretfulness returned, and some horses would seize every opportunity to try to run away. The result of the drilling was not at all satisfactory. It was impossible to obtain the precision and accuracy I have often observed in troops of cavalry with poorer riders and less intelligent men, and it was unsafe to attempt charging by platoon. If cavalry drill on the plain is intended to instruct the cadets to perform drill maneuvers properly, its object can never be fully accomplished while the horses are used for artillery drill.

If it is intended merely as a riding exercise, the cadets might nearly as well be taken to ride along the road. The result of the drill is injurious in some respects, as it gives the cadets a false notion of what a cavalry drill ought to be. Regularly year after year, at the graduating ride, the cadets are ordered to charge across the plain, and regularly do they go to pieces before they have charged twenty yards. They and others look upon it as perfectly natural and proper. It was not till I had been in the service several years that I knew that a cavalry troop could charge in line for a hundred yards or more and then be brought back to a slow gait without a single horse bolting and with comparatively little disorder. And I have even known officers of longer service than mine to express surprise that a battalion of four troops of cavalry should move at a trot with no horse galloping nor cantering. Their ideas of cavalry movements were formed at West Point.

This testimony of Captain Dorst, whose experience at the Academy as instructor in cavalry tactics, and whose extended and varied service in the field with mounted troops make him a thoroughly competent and highly intelligent authority, should be sufficient to convince Congress and the War Department that the public interests require an immediate compliance with the needs which he sets forth. Testimony as strong and as positive as that of Captain Dorst might be added, but this would be merely cumulative. We deem it pertinent, however, in this connection to refer to the views of Lieutenant Hoskins, of the Third United States Artillery, the present senior instructor of artillery tactics at the Academy. In answering certain interrogatories from the Superintendent as to the artillery equipment of the Academy and what was deemed necessary to add to its efficiency, Lieutenant Hoskins, under date of June 6, 1889, wrote as follows on the point now under discussion :

The horses are purchased exclusively with a view to their suitability for cavalry purposes and for the greater part of each year serve as such. For such service they are subjected to a system of training which unfits them for work in harness, and their use in artillery drills undoes all efforts expended to render them efficient as cavalry horses. The variety of uses to which they are put and the number of inexperienced persons to whose handling they are subjected disables many of them, and it frequently happens that the quartermaster has to be applied to for horses sufficient to properly horse the battery. A battery so constituted (a mere makeshift) can never be an efficient means of instruction. For this the personnel, horses, and material must be distinct, and entirely under the administration of the instructor. Men and horses must be thoroughly trained and educated before the point at which the instruction of cadets can begin is reached. For this reason much time is lost, and the season for drill passes without any satisfactory progress having been made in the instruction of the cadet.

BITS, BRIDLES, AND SADDLE CLOTHS.

Attention is directed to what is said by Captain Craig, the present senior instructor in cavalry tactics, touching the supply of bits and saddle blankets. The Ordnance Department limits its supply of bits to two sizes. The effect of this limitation is that instead of adjusting a bit to the mouth of the horse, the horse must adjust his mouth to the size of the bit. This policy saves the Ordnance Department the trouble of adding a few more sizes of bits to its list of articles furnished mounted

troops, but it entails suffering upon the horses and consequent demoralization to their riders and drivers. The committee by whom this subject was inquired into very correctly say, in their report, that, "as the sizes of horses' mouths vary as much as the sizes of men's feet, there should be more variation in the bit so as better to accommodate the horse." This seems to be one of those things so plainly necessary and so easily accomplished, that we trust the proper authority at the War Department will at once take steps to supply hereafter, not alone the Military Academy, but the mounted service of the entire Army with bits so varied in size as to save the public horses from the torture of a misfit. We also direct attention to what Captain Craig says about furnishing saddle cloths for the cadet troop.

APPEAL FOR THE TROOP AND THE BATTERY.

The Corps of Cadets as a battalion of infantry represents the highest condition of perfection to which that branch of the military service is capable of being carried. The Board believes that the same condition of perfection should be found in the cadet troop and the cadet light battery. Each should be a type and model for the imitation and emulation of the forces of the regular Army and the National Guard. That they are not so is largely chargeable to the neglect of Congress and the indifference of the War Department. Failure to supply modern guns, a sufficient number of horses for cavalry and artillery exercises, proper bits and bridles, suitable saddle cloths and other paraphernalia so essential to the promotion of the efficiency and the *esprit* of a military organization, and especially such a corps as we have at West Point, are the only obstacles to making the United States Corps of Cadets the finest and best trained body of soldiers in the world, and the United States Military Academy the model institution of its class. "We have but one cadet school," said the Board of Visitors for 1889, "and that ought to be as perfect in equipment as is the best in the world. Foreign visitors from every land see our school at West Point, and since we have scarcely a visible army our visitors shape their estimate from what they see at the Military Academy. We know that some officers at the Point maneuver at times to avoid showing the riding gallery and the horses, lest visitors go home to pronounce it all an American cavalry joke. Teachers and cadet riders like those we have seen deserve better surroundings and worthier belongings."

We are confident that this expresses the sentiment of the American people in reference to the Military Academy. No extravagance should be tolerated at this institution, but nothing should be withheld which is needed to make it creditable to the Government and the people. Until the cavalry and artillery departments are supplied with equipments so much needed by them, foreign visitors, of whom we will have an unusually large number the coming two years, are very likely to regard these departments as "an American cavalry joke."

“There is no reason,” said Captain Dorst, in one of the papers from which we have made quotations in connection with this particular subject, “why a company of mounted cadets ought not to approximate as closely to a model troop of cavalry in drill, appearance, and neatness as a company of dismounted cadets does to a model company of infantry. Every horse should be so well groomed that when he is brought into the hall his coat would fairly shine; bits and metal work should be kept bright; saddles and straps should be highly polished, and all the appointments of the stable and riding-hall should be consistent with the habits of order and neatness that are imposed upon the cadets as members of the infantry battalion organization of the corps.” What is here so well said by Captain Dorst about the cavalry applies with equal force to the artillery.

REPORT OF THE COMMITTEE.

Following is the report of the Committee on Armament and Equipment and the letter of the Senior Instructor of Cavalry Tactics:

ROOMS OF THE BOARD OF VISITORS,
West Point, N. Y., June 9, 1891.

To the Board of Visitors:

The Committee on Armament and Equipment respectfully reports that it has carefully investigated the subjects properly coming within the classification assigned to it, its labors in that direction having been greatly facilitated by Colonel Wilson, Superintendent of the Academy; Captain Metcalfe, Instructor of Ordnance and Gunnery; Captain Craig, of the cavalry, and other officers whose duties bring them into relations with the armament and equipment of the post.

It has been the observation of several previous Boards of Visitors that the horses used by the cadets in cavalry drill and at the riding hall should not be used in the artillery drill. We agree with this suggestion. The reason is obvious to any one at all familiar with horses. It is impossible to make a good saddle horse of an animal that is worked in harness much. The cavalry horses must learn to yield readily to the rein and the bit; to understand the bugle calls; to respond to the spur; to dress in the ranks, and in many ways he becomes a very intelligent machine, requiring delicacy and sensitiveness to sound and touch. The artillery horse, on the other hand, is so fettered by his harness and the burden he draws, is so hardened in the mouth by the rough drill in the battery, and the surroundings are so entirely different from those under the saddle, that he becomes a different machine. In fact, the absurdity of making a horse serve in both capacities is so transparent that it seems a waste of time to offer an argument against it.

In a public institution devoted to the training of military officers there should certainly be no sacrifice of efficiency for the sake of a small economy of this kind. The field battery will require about fifty horses. These could be taken from those now on hand, and in future purchases the best material for cavalry horses could be obtained.

We think the cadets should drill on horseback with the carbine, and also in the skirmish drill on horseback.

There is in use an excellent battery of 3.2-inch field-guns (steel), recently obtained. They are in good condition and afford good material for the instruction of the cadets. But they are the only modern guns, and the only guns at all fit for such purpose. Another similar battery is needed at once. In this connection we call attention to

the last annual report of the Superintendent of the Academy, in which he says (at page 7):

"During the short period allowed each year for field-artillery drill, instruction as cannoners must be given at the same time to both the third and fourth classes, aggregating usually about 150 men. One battery is used for light artillery, the other for foot artillery. At present, in order to keep up the drills, one class must use the old 3-inch muzzle-loading guns, while the other is being instructed with the new 3.2-inch breech-loader. I earnestly recommend that another battery of the 3.2-inch guns be furnished for this post at the earliest practicable day."

In addition to this new battery there should be also a detachment of artillerymen, consisting of two sergeants, two corporals, one blacksmith, and farrier, one trumpeter, and twenty-four privates. Quarters for these men can be arranged for in the new cavalry barracks now under construction, and room can be found for the horses in the present stables, with some minor improvements, which will involve but little expense.

We have already stated that except the new battery mentioned above there are no serviceable guns. In this we are fully sustained by the Superintendent and Lieutenant Hoskins, the instructor in artillery tactics. The former, in his annual report, quotes the latter with approval as follows:

"Lieutenant Hoskins very properly complains of the carriages used in the seacoast battery and the guns of the siege battery. The former he describes as follows:

"At the seacoast battery the cadets use three 8-inch muzzle-loading rifles (converted 10-inch smoothbore Rodman guns), two 15-inch smoothbore Rodman guns, and one 13-inch mortar.

"No two pieces of this battery are mounted on carriages of the same pattern, which fact renders a uniform system of instruction impossible.

"For effective work here guns of the same class should be mounted upon modern carriages, uniform in construction."

"I cordially concur in the views of Lieutenant Hoskins. It is high time that this important military institution, which annually turns out from 50 to 65 young officers, should be equipped with everything incident to a modern armament."

And then the Superintendent adds:

"The condition of the siege battery is much worse than that of the seacoast battery. During the past few years three guns have burst at this battery, as follows: April 25, 1876, a 4½-inch rifled gun burst at the one hundred and sixty-second round; July 16, 1881, a 30-pounder Parrott gun burst at the two hundred and twenty-second round; April 11, 1889, a 30-pounder Parrott gun burst at the three hundred and twenty-second round.

"Fortunately no cadets were struck by the fragments, although there were some narrow escapes, and in some instances the drums of the ears were more or less injured. After the last explosion the battery of 30-pounder Parrott guns was condemned, and the Ordnance Department, in October, 1889, supplied another battery of old 4½-inch rifled guns.

"Upon calling for the history of these guns I was informed that it was unknown, but that they had been selected as the best of a lot on hand at the New York Arsenal, sent there from the Washington Arsenal some years before. I was further informed that some guns of this pattern had recently burst. An examination of the guns showed that one of them was made in 1861 and the others in 1863, and they evidently had been used during the war of the rebellion.

"By authority of the Secretary of War I directed that the guns should not be fired at drill, as I believed it would be absolutely criminal on my part to endanger unnecessarily the lives of cadets by practicing with these old and obsolete pieces. I earnestly recommend that new 5-inch breech-loading steel guns be furnished for this battery at the earliest practicable moment."

We concur in the foregoing recommendations. We also recommend the purchase of a Maxim gun.

We are aware that heretofore the Government has not been in a position to furnish modern guns, but now that such are being manufactured we feel confident the first issues will be supplied to this post, thereby allowing the cadets the first opportunity to become thoroughly familiar with the most improved ordnance and equipments.

Our attention has been directed to the fact that but two sizes of the bridle bit used by the cadets for the cavalry horses have been furnished. As the sizes of the horses mouths vary as much as the sizes of the men's feet, there should be more variation in the bit so as to better accommodate the horses. In this connection we approve the recommendations of Captain Craig, as shown by the accompanying letter, and also as to the gray saddlecloths.

The senior assistant instructor of ordnance and gunnery is the only officer of corresponding rank at the Academy who is not allowed extra pay. As the detail of a lieutenant for this service increases the cost of living, we recommend that such officer receive captain's pay (the same as others on similar duty) as a means of inviting the best talent to this work.

Respectfully submitted.

THEODORE S. PECK.
CHAS. F. MANDERSON.
JAMES A. WAYMIRE.

LETTER OF CAPT. L. A. CRAIG.

WEST POINT, N. Y., June 5, 1891.

SIR: In reply to the verbal inquiries of members of the committee, I have the honor to state that horses, horse equipments, and small arms used for the instruction of cadets in riding and cavalry exercise are satisfactory. It is desirable to gradually obtain if possible a higher grade of horses to be used exclusively for cavalry purposes, as mounts for the first class, as the alternate employment in the troop and light battery makes it difficult to keep the horses in training for either service.

Thirty-five young horses have been received here recently and will give an unusual opportunity for instruction in the very important subject of proper biting. With this idea in view I have asked the appropriation of a small sum (\$120) for the purchase of a few assorted bits to replace the regulation bit during the period of instructions, the latter being heavy and severe for a young horse and the sizes not sufficiently varied.

The appearance of the horse equipments has always been the subject of much unfavorable comment by visitors to the Academy. The Chief of Ordnance of the Army very kindly furnished gray canvas saddlecloth last winter, and, by careful attention to polishing the leather of the saddles and bridles and the brass parts, a decided improvement has been made. The saddlecloths are not of a suitable material to be durable, however, and I have recommended an appropriation of \$500 for the purchase of 100 saddlecloths of strong material similar in color to the cadet uniforms, which with ordinary care will last for years and add greatly to the neatness and uniformity of the cadet troop.

Very respectfully, your obedient servant,

L. A. CRAIG,
Captain Sixth Cavalry, U. S. Army,
Senior Assistant Instructor Cavalry Tactics.

Gen. T. S. PECK,
Chairman of Committee on Armament and Equipment of the Board of Visitors.

HEADQUARTERS U. S. CORPS CADETS,
West Point, N. Y., June 8, 1891.

Respectfully forwarded through headquarters U. S. Military Academy. Approved.

H. S. HAWKINS,
Lieutenant-Colonel, Commandant Cadets.

HEADQUARTERS U. S. MILITARY ACADEMY,
West Point, N. Y., June 8, 1891.

Respectfully transmitted to Gen. T. S. Peck, member Board of Visitors.
By order of Colonel Wilson.

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

BUILDINGS AND GROUNDS.

Committee on Buildings and Grounds.—Messesrs. DAVID W. PAYNE, SAML. W. T. LANHANN, and ROBERT O. FULLER.

BUILDINGS IN COURSE OF ERECTION.

During the past few years Congress has been fairly liberal in its appropriations for the buildings and grounds of the Academy. For a number of years, however, prior and subsequent to the war of the rebellion, very little was done in this direction, and this failure to supply the buildings demanded from time to time by the natural increase of the institution, and to take the place of old buildings made inconvenient, uncomfortable, and almost useless by time and the growth of the Academy, resulted in a general running down in these essential requirements. When the buildings now in course of erection are completed the Academy will be housed with comfort; yet much remains to be done in this direction to place it abreast of the leading colleges in the way of buildings.

The new gymnasium is nearly completed and will be prepared for occupation during the current or early in the coming year. The gymnasium of the past was a discredit to the Government. Now that a handsome and commodious building has been erected it is hoped that Congress will provide for a thoroughly equipped gymnasium, and make this department at West Point worthy of this national school.

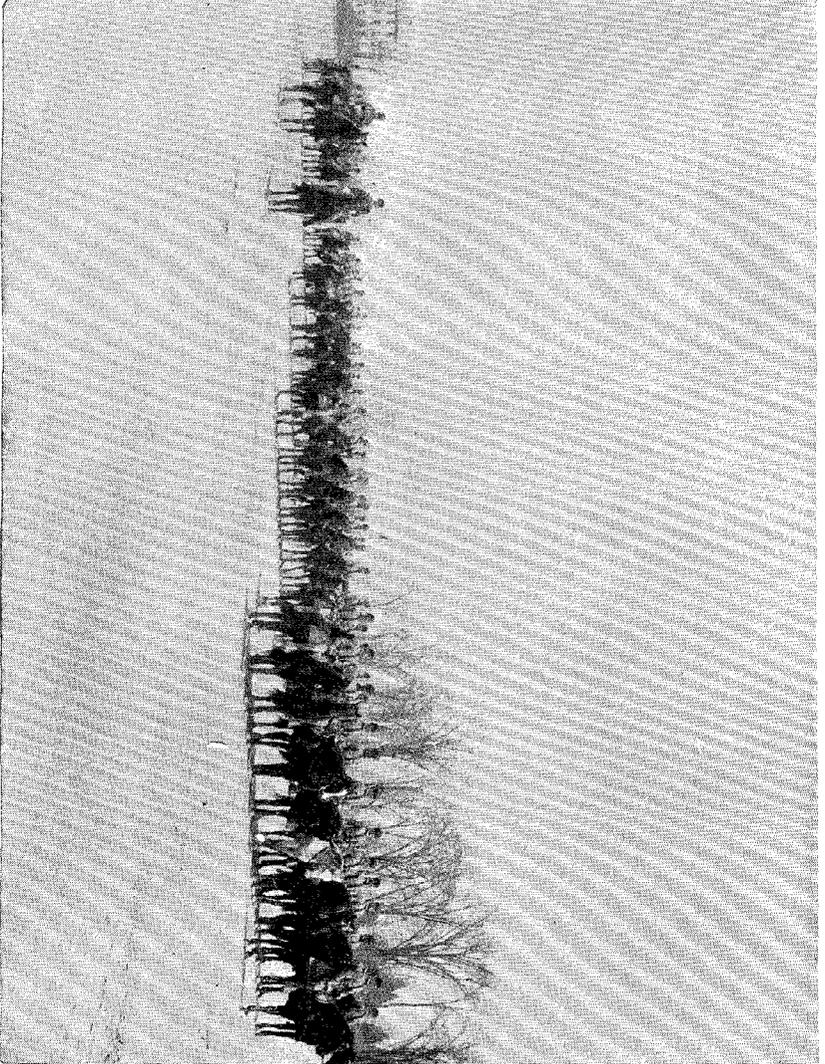
Upon the close of the academic year operations were at once begun on the academic building, and that old edifice was removed to make room for the new building to be erected on its site. The erection of this building should be pushed to completion at the earliest day practicable.

The cavalry barracks and the hospital for enlisted men, authorized at the first session of the last Congress, are in course of construction. The two sets of quarters for enlisted men, authorized at the same session, will be completed this year. The house erected for the use of the band will also be completed and ready for occupation this year.

QUARTERS FOR ENLISTED MEN.

At the last session of Congress an appropriation of \$24,000 was made "for twenty sets of quarters for enlisted men and their families." These twenty sets are in addition to the ten sets authorized in 1889 and referred to in the preceding paragraph. With these additions the post will still be deficient in proper quarters for the enlisted men.

CAVALRY—COLUMN OF PLATOONS.



There are at the north end of the post a lot of shanties which have been occupied for years by the enlisted men. These are a discredit to the Government and a constant menace to the laundry and quartermaster's storehouse, with all the valuable machinery contained in the former and the various valuable stores contained in the latter. No time should be lost in replacing these shanties with brick buildings. This should be done as a measure of economy, even if no consideration be given the enlisted men and their families. Previous Boards of Visitors have directed attention to these so-called "houses" of American soldiers at the only military school supported by the Government. One Board designated them "tumble-down fever-pens." Such houses as these would be discreditable to the Government if found on the frontier. They are a positive disgrace at West Point.

In this connection the Board suggests that regulations should be established to limit the number of married men in the several detachments of enlisted men and those known as "Army service men in the quartermaster's department." It has been stated that the number of women and children constituting the families of the enlisted men largely outnumber the Corps of Cadets, the officers of the Academy and their families, and the entire strength of what may be termed the garrison of West Point. It seems to the Board that the proportion of married enlisted men now at West Point is too large.

QUARTERS FOR JUNIOR OFFICERS.

Additional houses for the use of junior officers on duty at the academy are urgently needed. There seems to be a sufficient number of large houses for the occupation of the professors and officers of higher rank, but many of those occupied by the lieutenants are old, patched-up structures, badly arranged and destitute of proper conveniences. In many of these houses two or more married officers are located. At the last session of Congress \$20,000 was appropriated "for two or more sets of officers' quarters." This appropriation should be sufficient to erect four houses in sets of two. When completed a certain measure of relief will be afforded by the additional accommodations thus provided, but there will still be a lack of small houses for the accommodation of the junior officers. The old frame houses at the lower end of the post used for officers' quarters should be removed and plain brick buildings erected in their place.

QUARTERS FOR BACHELOR OFFICERS.

We believe that the comfort of the officers on duty at West Point would be promoted by the erection of a large building for the exclusive use of bachelor officers, the rooms of which should be arranged in sets on the plan of the large "flats" found in the principal cities, and in a manner to supply single men with ample space and proper conveniences. The present domiciliary accommodations are so far below what

is absolutely demanded for personal comfort that, in addition to being crowded into small and incommodious houses, rooms in the cadet barracks are used for quartering officers, the number of rooms now occupied for this purpose, including those occupied by the dentist, being about 30.

Grant Hall, erected as a mess hall for cadets in 1850, is also partially occupied by officers, the north end being used as a domicile and the south end by the officers' mess. The erection of such a building as is here suggested for the use of bachelor officers would furnish all needed accommodations for this class and supply them with apartments which would be commodious, comfortable, and agreeable. The erection of such a building would also enable the married officers to obtain sufficient room in which to make their families comfortable during the four years residence at West Point. A "flat" large enough to accommodate twelve or fifteen bachelors, with a suite of rooms for each, could be erected for a sum about equal to that appropriated by the last Congress for quarters which will not furnish the regulation accommodations for more than six officers.

REPAIRS FOR GRANT HALL.

The floor of the cadet dining room in Grant Hall should be replaced with marble tiles. The tramping of nearly 300 men three times every day on a wooden floor requires that a great deal of scrubbing shall be done. This frequent cleansing results in exhalations that are unpleasant to the highest degree in a dining room. Substitution of stone for wood would not only remove this unpleasant and objectionable odor, but would be the means of saving money. The wooden floor has to be renewed at certain intervals of time, whereas a tile floor would stand for many years. We recommend an appropriation for this purpose.

CADET SINKS AND PUBLIC LATRINES.

A movement should be made at an early day looking to the removal of the building in which are located the cadet sinks and the erection of a building for this purpose at a less prominent point than is now occupied. These sinks are in a stone building south of the barracks, distant about 200 feet, and on the edge of the area used for most of the cadet formations. In stormy weather great discomfort is experienced in going to and returning from this building, and much time is lost by the great distance traveled. The present location will be still more objectionable when the new academic building is completed as the end of that building will be within a few feet of the sinks. It has been suggested that the basement of the cadet barracks could be used for this purpose without detriment to health, as the improvements made in plumbing and drainage are such as to render this change advisable.

Attention is directed to the absence of any latrines and closets for the use of temporary visitors to West Point. This has been a subject

of comment by many preceding Boards, and recommendations have been made for supplying such accommodations. Public decency and the preservation of the grounds from defilement, as well as consideration for the numerous visitors attracted to West Point during the summer months, appeal for the immediate erection of such buildings as would secure the purposes referred to. We recommend a specific appropriation for this purpose.

NECESSITY FOR ELECTRIC LIGHT.

We earnestly renew the recommendation made by former Boards of Visitors for the introduction of the electric light. It has been clearly demonstrated that the use of gas as furnished at the Academy is injurious to the eyesight of the cadets. The gas works are not large enough for present requirements, and their capacity will be materially reduced when the new buildings now in course of construction are completed. Lieut. George L. Anderson, of the First Artillery, who investigated this subject in 1889 and submitted plans for lighting the cadet barracks with electricity, in speaking of the inadequacy of the gas works to meet the demand made upon them said :

Although run to their full capacity, the single gasometer is nearly exhausted at 11 p. m. during a great part of the year. In winter a certain number of lights on the streets are often turned off to preserve the supply. The stoppage of a main at any time, or other accident sufficiently serious to interrupt the manufacture for a few hours, would cut short the amount nightly consumed and leave the whole or a portion of the place in darkness. That no inconvenience, due to some slight cause, has occurred within the past three or four years has been owing to good fortune rather than to the excellent management of the works.

The Board sincerely hopes that this matter of furnishing good light for the use of cadets while pursuing their studies will receive prompt and favorable consideration from Congress. The reports of the medical officers for the past few years show a steady increase in the number of cases of treatment for the eyes. Quite a large number of this year's graduating class, more than one-fourth, were found not to have the full requirements as to vision, and in every instance this deficiency was attributed to the insufficiency of the light furnished. In directing attention to this matter the Board of Visitors for 1889 very pertinently said :

The eyes of whole generations of officers of the Army are concerned in this vital issue. A student's eyes are not replaceable like his boots or interchangeable like an officer's weapons. The long periods of darkness in winter in our latitude compel prolonged study, and the priceless sight, which is tested so carefully when the cadet enters the Academy, is apt to be injured through want of better illumination purchasable by a few dollars from the Government, which so recently ordered the ocular tests.

Lieutenant Anderson in the report above referred to made an estimate of the cost for introducing the electric light in the cadet barracks and submitted plans and drawings for this purpose. The cost for light-

ing the barracks was placed by Lieutenant Anderson at \$9,540. His report will be found in the report of the Board of Visitors for 1889, page 23. It is unnecessary to insert it in this report, but we reproduce the following paragraphs:

Cadet barracks use one-third of all the gas consumed at the post. The barracks and mess hall together take four-tenths. An electric-light installation would, of course, relieve the present gas plant to this extent. Other considerations relating to the subject are:

(1) The incandescent lamp consumes no air, it does not heat, and it is steadier, safer, and cleaner than gas. The 8-foot gas-burner in each cadet room, 22 by 15 by 10 feet, vitiate about 640 cubic feet of air per hour. It consumes as much good air as eight persons and produces twenty times more heat than the electric lamp. The heat of gas-burners is alleged to be the cause of much headache in the corps.

(2) Complaints of soreness of eyes are made by about a dozen cadets every three months. Out of an average of 285 cadets 28 with eye affections consulted the post surgeon with regard to them during the three months ending January 31, 1887. They are using the argand burner and the best quality of gas, so that improvement may be sought in the direction of another kind of lamp. Owing to the position which may be given it, a 16-candle incandescent light will throw a stronger and steadier light upon a table than an upright gas jet of the same power.

(3) A small electric lamp will probably always be maintained, as at the present time, for lighting the riding hall, and for furnishing electricity to the departments for experimenting purposes. The proposed system can also be readily extended to the library, which is now heated by steam, if it is sought to diminish in this way the chances of loss by fire of a building which is not fire-proof and which contains the most valuable collection of military books and papers in the country.

Considering that the gas works will have to be enlarged in order to meet present requirements, we believe it would be better, from every point of view, to allow the gas works to remain as they are and to put in an electric plant adapted to supplying light to all the departments of the Academy, and which may be so extended as to meet future requirements. An estimate for such a plant, together with plans and details, was submitted to the Superintendent last year by Lieut. John Millis of the Engineer Corps, a well known expert in electricity. This report is herewith appended:

UNITED STATES GENERAL LIGHT-HOUSE DEPOT,
OFFICE OF U. S. LIGHT-HOUSE ENGINEER, THIRD DISTRICT,
Tompkinsville, N. Y., May 31, 1890.

SIR: In compliance with your request, I have the honor to submit the following outline plan, estimates, and specifications for an electric light and power-plant for the U. S. Military Academy at West Point, N. Y.

The plan proposed contemplates a system of electric lighting which, while being adapted to the peculiar conditions now existing, will readily admit of extension as future needs may require; which will eventually, if not at first established, replace all other methods of illumination in the Academy buildings and grounds, and which will also, as a secondary consideration, be adapted to such requirements for the distribution of power as now exist or may arise in the future.

With the above objects in view, the estimates comprise, first, a complete system of electric lamps for cadet barracks and other buildings of the Academy where artificial lights are used, including the academic building, the cadet mess-hall, the library, the chapel, the cadet hospital, the riding hall, the gymnasium, the observatory, and the bath room, sinks, etc.

There are also included electric lamps for the soldiers' barracks, quarters, reading and amusement rooms, and soldiers' hospital; for the officers' mess-hall and quarters, for the quarters of civil employes, for the hotel and headquarters building, for the various shops, storehouses, guard houses, laundries, stables, etc., and for lighting the Academy grounds and the cadet camp.

The electric plant necessary to operate such a system of lights would, in addition, furnish a very advantageous and economical method of distributing mechanical power by means of electric motors to the various workshops, laboratories, etc., where steam engines or other motors are now employed or where power may be eventually required.

The first considerations are of course the advantages and the adaptability of the proposed system to the requirements of the cadets and to what may be termed the Academy proper. Of the importance to the Corps of Cadets—a selected class of students undergoing training and instruction for the military profession—of the most perfect known method of artificial illumination little need be said, particularly when it is remembered that a greater portion of the study which the exacting course of the Academy requires must be done by artificial light, and that, notwithstanding the rigid examinations regarding eye-sight to which candidates for admission are subjected, failures in the course which are directly attributable to impaired vision are not infrequent. It is now generally conceded that the incandescent lamp is the most perfect known device for interior illumination and particularly for purposes of reading and study. Its great superiority over gas, oil, or other lamps as regards safety from fire, the favorable color of the light, and particularly its freedom from heat and unhealthy products of combustion, are now too well known to require detailed explanation here.

Since the majority of the lamps to be established are for interior illumination, the proposed plant will of course consist mainly of the incandescent system, and the conditions are such as to render the "central-station" plan best adapted to the requirements, as the buildings to be lighted are considerably scattered and there are not sufficient number of large separate buildings to justify establishing several separate or "isolated" plants.

A single station for all the generators and the steam power being decided upon, its location is determined by the following considerations: It should be easy of access from the river and from the railroad, in order to facilitate the delivery of machinery, coal, and other materials and supplies, and it should also be placed where there is a supply of water, where ashes may be readily disposed of, and where the unavoidable dirt, smoke, and noise of the machinery will not be objectionable. A central location with respect to the buildings to be lighted is of course desirable.

An examination shows that there is no existing building on the reservation fulfilling these conditions which is also of sufficient size and adapted to the other requirements of a central station, and it is therefore proposed to erect a new building on a site west of the railroad track and near the northern end of the tunnel. It is believed that this location offers a better combination of favorable conditions and fewer unfavorable ones than any other site available.

With the central station at this point, the cadet barracks and Academy proper will be at a distance of about half a mile. The hotel and the "center of distribution" for the officers' quarters north of cadet barracks will be about a quarter of a mile distant. The center of distribution for the officers' quarters south of cadet barracks will be at a distance of about three-quarters of a mile, while that for the soldiers' barracks and quarters, the soldiers' hospital, etc., will be only an eighth of a mile from the station.

The most distant lamps will be those at the south guard-house and in the officers' quarters near by, which are about 1 mile from the site proposed for the central station.

For a large incandescent plant, where the lamps are so widely scattered and where conductors of such varying lengths are required, the "direct" or continuous current

system is not well adapted, since for the long circuits very heavy conductors would be necessary in order to insure uniformity in the brightness of the lamps and economical working, a number of generators would have to be employed, each adapted to a group of lamps requiring about the same length of circuit. It has therefore been decided to adopt the "secondary" or alternating current system throughout, in which the above objections are mainly obviated. The secondary system will afford sufficient flexibility to meet the requirements of the service, while for long circuits it is more economical in first cost of line construction and in expense of operation.

The estimate of the total number of lamps required is based upon the number of gas-burners now in use, which is 2,745. Besides the gas-burners there are also employed in the soldiers' barracks and other buildings a considerable number of oil lamps, which it is proposed to replace by electric lamps, and in the cadet barracks it is proposed to put two lamps in each room where only one gas-burner has been furnished heretofore. The new academy and gymnasium buildings will also require additional lights, and a number of the existing gas-lamps, particularly those used for lighting the grounds, will be replaced by electric lamps of greater power than the standard 16 candles. It is also probable that in establishing the new system more efficient lighting will be called for in other localities where gas or oil is now used, requiring more burners than are now employed, so that the estimate is made for a total of 3,500 16-candle lamps, of which it is calculated that the greatest number that will be in operation at any one time will not exceed 2,000.

The central station building is to be a plain brick structure with brick chimney and metal or slate roof, and while not intended to be fire-proof it will not be easily combustible. It is to have a room for the engines and electric apparatus, a separate boiler-room, rooms for oils, stores, etc., and a coal-shed. Owing to the great irregularity of the service required, both the steam-power and the electric generators will have to be designed for unusual "flexibility." During the summer encampment the lamps in cadet barracks and in many other of the academy buildings, as well as a large portion of those in the officers' quarters, will not be used, while the demand for lights at the hotel and in the cadet camp will of course be greater than at other times of the year. In the winter season, when the total number of lamps in use will be greatest, the number in operation at different times of the night will be exceedingly variable.

The maximum "load" will begin soon after the return of the cadets from supper and will continue till "taps," when a large number of lamps are extinguished and the load will be greatly diminished. A considerable number will be required in officers' quarters, etc., until midnight, but comparatively few, including those used for lighting the grounds and in certain hallways in hospitals, etc., will be operated all night. For a service of such a variable nature a number of generators with engines and boilers to correspond are evidently preferable to one or two generators of large capacity with large power units, and for this reason the high-speed, noncondensing type of engine with direct belting to the dynamos is recommended; though, for a plant of this size where the service is more regular, compound condensing engines or engines of the Corliss type would be the more economical, as the greater first cost would be overbalanced by the saving in cost of fuel and other operating expenses.

For cadet barracks the importance of an uninterrupted service is such that this circuit should have its special generating apparatus, which should be in duplicate, but it will not be necessary to provide special duplicate engines, since there will always be a reserve of power and interruptions due to accidents to the steam apparatus are not so liable to occur. Three boilers are provided for, one of which is ordinarily to be held in reserve. Should it be necessary other less important circuits could be shut off in order to keep the lamps at cadet barracks in operation.

For the generators to operate the other circuits, duplicate armatures only are contemplated.

For the outside circuits in general overhead wires supported on poles will be used, since it is not believed that the requirements are such as to justify the increased

expense of underground conduits, except perhaps in a few special localities. Conductors are to be covered throughout with best gum insulation, and poles, cross-beams, brackets, etc., are to be smoothly finished and painted. The very best methods and machinery known for overhead-line construction will be required in order to insure safety and reliability in the circuits.

All interior wiring is to be "concealed work" wherever practicable, and, where not, molding strips are to be used to cover the wires. No "cleat work" or exposed wires is to be permitted, except in basements and other special localities where the conditions may render this method of wiring preferable. For each cadet room it is proposed to supply two portable adjustable table lamps with flexible conducting cords and shades. This will give each cadet a light for his individual use and under his individual control, and in case one lamp becomes extinguished no great inconvenience will result.

In other cases where practicable the lamps are to be placed on existing gas-fixtures without interfering with the use of the gas. In the new buildings to be erected and in certain other cases, new fixtures adapted to the electric lamps alone will be required.

A small arc-light plant for lighting the riding hall and for other uses where arc lamps may be required is included and a number of motors are provided for.

A complete outfit of measuring and test instruments will also be furnished with the apparatus.

Assuming that the work is to be done by contract, it is recommended that separate advertisements be issued for the station building, for the steam-power apparatus, and for the electric plant complete, respectively. The specifications conform to this recommendation, and they prescribe the methods of inspection and test of all material and apparatus during construction, and the final test of the completed plant in operation before acceptance.

The estimates of cost are based upon the best information obtainable, from the experience of this office in similar work, and from consultation with reliable companies engaged in the business. These estimates are necessarily somewhat general in their nature, but they are believed to be at least approximately correct, and it is probable that the actual cost will fall within the amounts given if competition is secured by the usual advertisements inviting proposals.

I desire to acknowledge the many courtesies extended to me by Capt. C. W. Williams, quartermaster of the Academy, who has supplied complete information concerning the present gas plant, and in many other ways facilitated the preparation of this report.

Very respectfully, your obedient servant,

JOHN MILLIS,

First Lieutenant of Engineers, U. S. Army.

Col. JOHN M. WILSON,

Corps of Engineers, U. S. Army,

Superintendent U. S. Military Academy, West Point, N. Y.

Estimate for electric-light plant for the U. S. Military Academy, West Point, N. Y.

Total number of lamps of 16 candle-power to be established	3,500
Total number of arc lamps of 2,000 candle-power to be established	10
Greatest number of incandescent lamps to be operated at any one time	2,000
<hr/>	
For brick central station building complete, to contain engine-room, boiler-room, coal shed, storerooms, etc., to have brick chimney and noncombustible roof covering, and including grading and filling, construction of necessary road, piping for water supply, etc	\$7,500
For three 100 horse-power boilers and setting, with pump, heaters, chimney connections, piping, and all fixtures complete	6,000

For two 100 horse-power and one 60 horse-power engines, with foundations complete, steam and exhaust connections and piping, belting, and all fixtures and accessories.....	\$7,500
For two 750 light and two 500-light alternating-current dynamos, with exciters, regulators, switch-board and switches, cut-outs, safety apparatus, test instruments, and all wiring, connections, and electrical apparatus of all kinds connected with the incandescent plant at the central station.....	8,500
For 10-lamp arc-light plant complete.....	1,100
For outside conductors and pole lines complete.....	6,500
For all incandescent lamps, shades, and fixtures, and all interior wiring, converters, and connections for 3,500 lamps.....	28,000
For motors and contingencies.....	4,000
Total.....	69,100

Estimated operating expenses, total per year, \$11,000.

A true copy.

J. M. CARSON, JR.,
Second Lieutenant, Fifth Cavalry, Adjutant U. S. Military Academy.

THE HOTEL ACCOMMODATIONS.

The West Point Hotel has been for many years an object for the anathema of visitors, a source of irritation to the academic authorities, and doubtless a profitless enterprise to the lessee. The cause of the trouble will be removed only when a new departure is made in the method of leasing this hotel. The present lessee pays an annual rental of \$3,500 and by the terms of his lease is required to expend for repairs \$500 each year, thus making the actual rental \$4,000. The building was constructed more than 60 years ago from funds received from the sale of timber cut on the reservation. Some additions have been made to the original building, but none have been made within late years. It contains about 60 rooms, the greater number of which are small, in almost every respect undesirable, and in many respects uncomfortable. There is but one bathroom in the house, and during the last days of the annual examinations this solitary bathroom has not infrequently been assigned to a guest for a sleeping apartment. The desirable rooms are so few as to be insufficient for the accommodation of the Board of Visitors, which consists of twelve members, most of whom are always accompanied by ladies of their families.

During the month of June the hotel is always crowded to its utmost capacity, the people being compelled to submit to discomfort for the reason that they can not be accommodated elsewhere on the post, the nearest hotel being about 2 miles from the academic buildings. In addition to this reason for submission to physical torture, the majority of the visitors go to West Point to see their sons and brothers, who are in the corps of cadets, and these relatives naturally desire to be where every opportunity can be improved to enjoy the society of their relatives. Those who are familiar with the rigid regulations of the Academy, and know how little time the cadet is allowed for visiting, will appreciate the value placed by parents and relatives on the privilege of being located at the West Point Hotel, particularly when it is known that cadets are not permitted to leave the reservation, that even the West

Point Hotel, which is located on the edge of the cavalry plain, is "off limits" for cadets, and can be visited by them only with special permission, and even then only at certain hours.

The hotel was originally intended for a boarding house, to accommodate those who are required to officially visit the Academy, the parents and relatives of cadets, and officers of the Army. Like many other antiquated things at West Point, the Military Academy has grown very far beyond the hotel. Having to pay a rental of \$4,000 per annum, the lessee is obliged to fix his prices at figures which will insure at least an income to that amount, and these prices are very generally regarded as in excess of the value of the accommodations provided. It should be stated in this connection that the lessee has not more than four months of the year upon which to rely to secure from the public the money necessary to pay the United States for the privilege of managing this ancient hostelry. During the winter months very few guests are entertained, and for days in succession the house is without guests. The lessee, however, is obliged to keep the hotel open and be prepared for the stranger at all times. So long as the Government continues to exact an exorbitant rental for this hotel the public will be compelled to suffer the inconvenience and submit to the high prices described. The landlord must take from the people in order to pay over to the Government annually the sum of \$4,000, which amount is credited to the post fund and expended for public purposes. We submit that it is unworthy this great Government to be thus engaged in a copartnership with hotel men, livery-stable men, and others to make profits by imposing a tax upon the people who are attracted to West Point, and we trust that this discreditable practice will be discontinued. The Government is abundantly able to maintain the Military Academy without descending through its military officers to the petty business of assessing visitors to make up a portion of the outlay necessary to maintain this national institution.

What is needed in this direction for the public accommodation is the removal of the present hotel and the erection on its site of a hotel capable of accommodating 400 or 500 persons, and so constructed that a section could be kept open in the winter season without entailing unnecessary expense upon the proprietor. It is not probable that Congress can be induced to make an appropriation for this purpose, and the Board does not believe that it would be advisable to do so. But we do believe that Congress should pass an act by which the people may visit West Point and find comfortable accommodations at fair and reasonable prices. This may be accomplished if, instead of putting up to the highest bidder the privilege of leasing the hotel, authority be given the Secretary of War to make a lease for a long period of time with a responsible and experienced hotel keeper, conditioned that the lessee shall expend a certain sum in the erection of a hotel on the site of the present building, and that he shall maintain and conduct the hotel under regulations to be approved by the Secretary of War.

In the extension of this privilege there should be no pecuniary consideration exacted by the United States. We believe that should an act be passed authorizing the action above outlined it would speedily result in providing at West Point a modern built and well equipped hotel at which parents of cadets and other visitors to the Academy would be comfortably entertained at such prices as would bring it within the reach of persons of moderate means. As at present conducted persons of moderate means can not stand the hotel charges, and those persons who can feel that they are the victims of a system which, whatever the necessity for its establishment, is maintained without reason or justification and apparently for the sole purpose of filching from the public, through the agency of the lessee of the hotel, the sum of \$4,000 per year to assist the Government of the United States in maintaining the Military Academy. The money already received by the United States from the rent of this hotel aggregates a sum largely in excess of the cost of its erection and all improvements made thereon.

The present lease on the hotel will expire in August, 1892, and we earnestly recommend that it be not renewed. If authority can not be obtained to arrange for the erection of a new building without expense to the United States we recommend that the old hotel, with all its inconveniences, discomforts, and harassments, be leased to the present lessee, or some other responsible and experienced man, at a nominal sum, say \$1,000 per annum, all of which should be used in the making of such repairs as may be required on the hotel property.

THE KINSLEY PURCHASE.

In this connection attention is directed to the Kinsley property, which was recently acquired by the Government and added to the West Point reservation. There is on the Kinsley purchase an old and somewhat dilapidated frame dwelling house, upon which the Government last year expended in repairs \$1,500. This was an expenditure of doubtful propriety. The building has passed the period when repairs can be made with profit. It is proposed by the Superintendent to lease this Kinsley "mansion" and convert it into a boarding house, the lease to include a number of acres surrounding the house. With a boarding house established on the Kinsley purchase the West Point Hotel would be relieved during the summer months of the overcrowding that is usual, additional accommodations would be provided for visitors, and those who are unable to withstand the exactions at the hotel, made necessary by the demands of the Government to participate in the profits, would be able to find a place to lodge. We recommend that the Kinsley dwelling and a certain number of acres surrounding it be leased to a responsible party for conversion into a boarding house. If this should be done we trust the Secretary of War will exercise his authority to prevent an extension to the Kinsley purchase of the system which makes the Government a direct beneficiary of the profits

resulting from conducting the West Point Hotel. Grant for a term of years a lease of the Kinsley house and surrounding acres to any reputable and responsible parties for a merely nominal sum, conditioned that the house shall be made comfortable for the accommodation of guests and that it will be conducted in accordance with regulations to be approved by the Secretary of War, but keep the Government out of the partnership.

What is here said in deprecation of the lease of the hotel applies to the leasing of the privilege of maintaining horses and vehicles on the post, a privilege which should go with the lease of the hotel.

THE ENGINEER BARRACKS.

The condition of the barracks occupied by the engineer company is discreditable and should be given immediate attention. Considerable repairs are needed to make the barracks comfortable. Several large stoves are used on each of the floors for heating purposes. These should be removed and a plant substituted for steam-heating. Due regard for the lives of the men and safety of the public property demand that steam should be substituted for the stoves in use, leaving out of consideration the saving in money that would be effected in the consumption of coal.

A new range is also urgently needed for the kitchen. The sinks, which are in close proximity to the barracks, are in a dilapidated and leaky condition. The bowls in use were condemned and removed from dwellings on the post, and were unserviceable when utilized for the closets of the engineer barracks. If these sinks were within the corporate limits of any town those responsible for the nuisance created would be liable to prosecution. The men of the engineer company are mostly young Americans of fine appearance and martial spirit, who have joined this corps for the educational advantages presented, and should be given proper consideration by the military authorities as to the ordinary comforts usual in garrisons in the East. At least \$1,000 should be specifically appropriated for the repair and renovation of the engineer barracks and the immediate surroundings.

REPORT OF THE COMMITTEE.

Following is the report of the committee on Buildings and Grounds:

ROOMS OF THE BOARD OF VISITORS,
West Point, N. Y., June 8, 1891.

To the Board of Visitors:

Your committee on Buildings and Grounds have the honor to report as follows:

Immediately after appointment the committee waited upon the Superintendent for such information as was necessary to the conduct of their inquiries, and were furnished with memoranda hereto attached directing their attention to certain immediate requirements of the Academy and post.

These matters were thoroughly examined and inquiries extended in other directions as far as deemed advisable.

The committee desire to express their unqualified admiration of the attention given by the superintendent and his subordinates to the preservation and care of the buildings and grounds.

The liberal appropriations recently made by Congress cover with few exceptions all the important new constructions required. There are, however, some additional buildings needed for the comfort and convenience of the officers, cadets, and members of the garrison.

These, in connection with repairs and improvements as outlined by the superintendent, and which will be recommended in his report to the Secretary of War, are in the main earnestly approved by the committee, many of them being sanitary requirements.

The old wooden buildings at the north side of the post are unfit for occupation and should be removed as rapidly as possible.

The noxious gases arising from the drain under cadet barracks, which is connected with the bath rooms and urinals, indicate the necessity for their removal to a separate building.

The improvement of the sewers and plumbing of officers' quarters and administrative buildings is proceeding under an old appropriation, which is not sufficient to carry the work to completion.

The attention of the committee was especially called to the fact that the space in the library is entirely inadequate to accommodate the books. There are now 34,000 volumes on hand and the number is rapidly increasing. Books are now piled about in every nook and corner.

It is proposed by the superintendent to make the necessary enlargement by throwing open those portions of the building at present occupied by the department of philosophy, which will be vacated upon the completion of the new academic building, and also the rooms formerly occupied by the administrative officers and now vacant. This change will afford about double the present space.

To effect this change and to construct the ceiling in keeping with the building the assistance of an architect is required. An appropriation of \$2,500 is recommended for the employment of a skilled architect for this purpose.

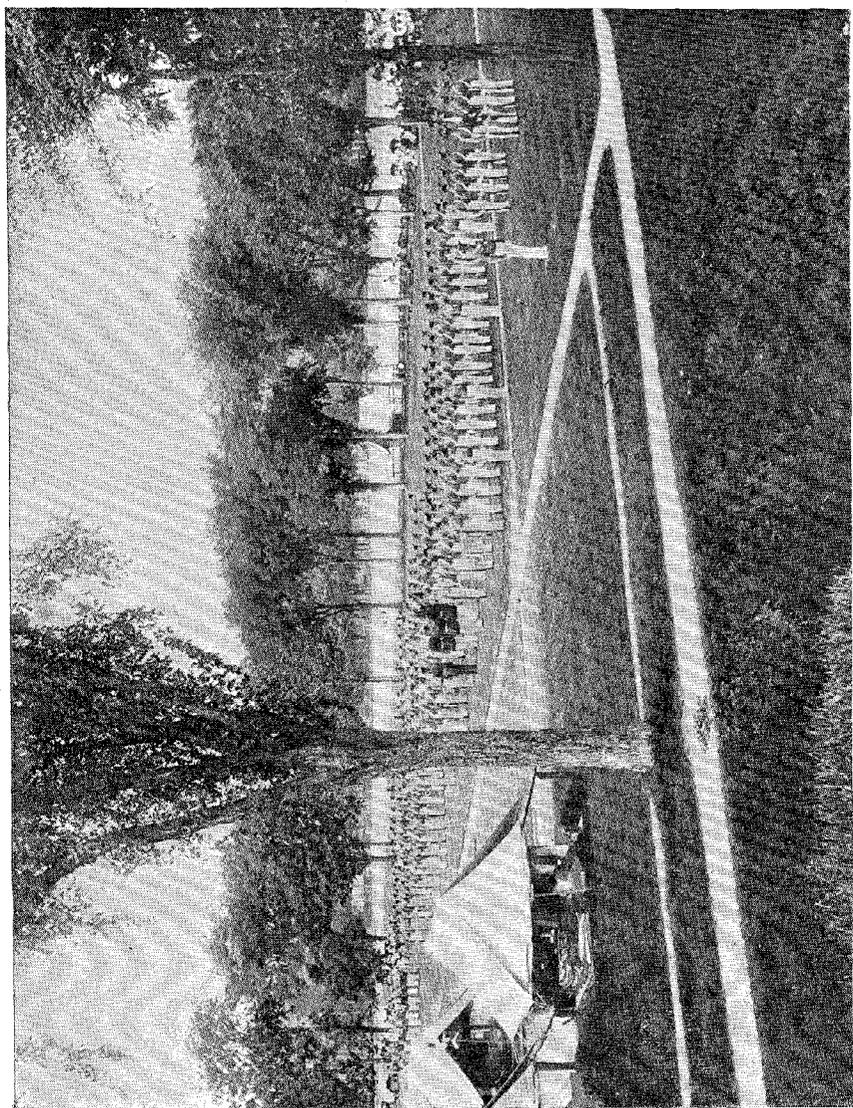
The committee can not close without remark upon the inadequacy of the hotel to accommodate the visitors at this season of the year. The fittings are antiquated and uncomfortable and not in keeping with the times. It should be renovated throughout. We are informed that the present leaseholder pays a rental of \$3,500 per annum and that his lease expires in 1892. The patronage is such as should enable the proprietor to afford his guests comfortable accommodations. When a new lease is made the buildings should be newly furnished throughout by the lessee.

In this connection the committee would call attention to the suggestion of the superintendent that he be empowered to lease the Kensley Mansion and 10 acres of ground surrounding it for a term of years and upon such terms as the Secretary of War may deem most desirable for hotel purposes. This would relieve the present establishment, take care of the overflow during the summer months, and by competition secure comfortable accommodations to the parents and friends of cadets.

Aside from the points mentioned we find nothing coming within the scope of our inquiries to criticise.

Respectfully submitted.

D. W. PAYNE.
S. W. T. LANHAM.
ROBERT O. FULLER.



INFANTRY—BATTALION, PREPARED FOR INSPECTION.

SUPPLIES AND EXPENDITURES FOR CADETS.

Committee on Supplies and Expenditures for Cadets.—MESSRS. JULIUS C. BURROWS, SAMUEL W. T. LANHAM, and JOHN M. CARSON.

The Department of Cadet Supplies is in charge of Capt. W. F. Spurgin, Twenty-first Infantry, whose remarkable ability in this particular line of duty has been so conspicuous as to induce the authorities to retain him beyond the usual period set apart for a term of service at the Academy. The Board made a thorough inspection of this department, and, although its administration embraces several distinct lines of duty and a variety of detail, it was found in perfect order, with machinery working harmoniously, every division of labor and responsibility being under the constant supervision of one head and the results being satisfactory to the cadets, for whose benefit this organization was created.

Captain Spurgin sustains a variety of relations to the cadets. First, he is treasurer, and as such receives all moneys allowed for pay and disburses it; second, he is quartermaster for the Cadet Corps, purchasing all supplies in the form of clothing and having all articles of uniform, including shoes, made up, each cadet being measured for his clothing; third, he is commissary for the Corps of Cadets, purchasing all subsistence supplies needed and having these prepared, cooked, and served. In short Captain Spurgin has charge of everything connected with the feeding, clothing, washing, mending, and furnishing of bed rooms for the cadets. To discharge these multifarious duties with a degree of efficiency to give satisfaction requires, in the first place, taste, aptitude and industry and, in the second, careful training and extended experience. These are combined in Captain Spurgin.

We concur in the recommendations made by previous Boards of Visitors that Captain Spurgin should be permanently attached to the Academy and continued in the discharge of his present duties. We believe the interests of the Academy and the military service would be promoted by appointing this officer to the pay corps of the Army, to the end that, in addition to his present duties, he could perform the duty now performed by a regular paymaster in paying the officers of the Military Academy and the troops constituting the post of West Point.

This department is closely related to the well-being of the individual cadet and the discipline of the corps. If the food furnished be not sufficient in quantity, wholesome in quality, well-cooked, and properly served there will be discontent, resulting in demoralization and the un-

dermining of discipline. The testimony of the cadets to the character of administration of Captain Spurgin is supplemented by the universal commendation of the officers at the Academy, and both these are given emphasis by the splendid discipline of the Corps of Cadets.

The Board visited the several divisions of this department in a body and found each in the highest state of efficiency. The laundry is well supplied with all necessary machinery and appliances for the performance of the best class of work, and is managed with skill and economy; the quartermaster's division is well supplied with everything needed for the comfort and convenience of the cadets, and when the building to be used as a storehouse is constructed, which was authorized by the last Congress, the capacity of the tailor and shoe shops will be materially extended; the kitchen and pantries of the cadet mess are in good order and well supplied with all necessary machinery and utensils.

Members of the Board visited the kitchen at different times during the preparation for meals, and upon one occasion, without previous notice to Captain Spurgin or any of his assistants, we proceeded in a body to the dining hall after the corps was seated for dinner, and each member selecting a table, so that we were scattered over the hall, had the pleasure of dining with the cadets, and in this way were enabled to test the quality of the food served. From this experience, as well as from close scrutiny into all the methods employed in preparing, cooking, and serving the food, we have no hesitation in saying that the meals furnished the cadets are as good as can be supplied with the means at hand, and that, as regards quantity, variety, preparation, wholesomeness, and service, they are all that can be desired. The cost for board to each cadet is between \$16 and \$17 per month.

The character and variety of the duties performed by Captain Spurgin and the method of disbursing the pay of cadets is best explained in the words of that officer:

I perform the duties of treasurer of the Military Academy, and have the management of all affairs appertaining to the cadet quartermaster's department, cadet subsistence department, and cadet laundry. The treasurer handles all moneys appertaining exclusively to cadets personally and to the above-named departments. The receipt and disbursement of such moneys requires twenty-eight separate and distinct accounts.

The cadet quartermaster's department supplies everything required by a cadet for his personal service (excepting his subsistence), and which is paid for out of his pay.

The cadet subsistence department supplies the cadet his food, which is well cooked, wholesome, and in variety according to season.

All supplies are purchased in open market, wherever the best article at least cost may be obtained.

The pay of each cadet is \$45 per month, or a total of \$540 a year. In addition he receives medical attendance and medicines, quarters, fuel for heating same, and coal for gas, free; he also derives benefit from all general appropriations for the Academy.

The income of a cadet is expended for his subsistence, clothing, text-books, for services of all persons connected with the domestic branch of the Academy, such as the barber, shoeblocks, those engaged in policing the barracks, for laundrying and in defraying all of his necessary expenses at the Academy.

Four dollars of his monthly pay is set aside each settlement, and constitutes what is known as his equipment fund, amounting during the four years to \$192; which sum he receives on graduation, or in case his connection with the Academy is severed prior to graduation, the accrued amount, whatever it may be.

Cadets found deficient receive whatever may be due to date of discharge, and in addition a sum equivalent to one day's pay as a cadet for every 20 miles of the distance from West Point to their homes, as determined by the official table of distances published by the Paymaster-General U. S. Army; he also receives through the disbursing officer of the Academy, from Congressional appropriation, the actual cost of his traveling expenses, including sleeping-berth, to his home.

I consider the income of a cadet, taken in connection with the sum which he deposits on entering the Academy—viz, \$100, and which defrays the cost of his first outfit—sufficient, but no more than sufficient, for all of his actual necessities under economical management.

STATEMENT OF CAPT. W. F. SPURGIN.

HEADQUARTERS U. S. MILITARY ACADEMY,
OFFICE TREASURER, QUARTERMASTER, AND COMMISSARY OF CADETS,
West Point, N. Y., October 6, 1891.

SIR: Referring to exhibits F-A and F-B, pages 100 to 104 inclusive, Report of the Board of Visitors to the U. S. Military Academy for 1887, I have the honor to transmit herewith the following:

Abstract of cost of provisions, property, etc., used, issued, and consumed at the cadet mess U. S. Military Academy, West Point, N. Y., from May 1, 1889, to May 30, 1891, four years, which taken in connection with exhibit F-A above referred to, completes the table for seventeen years previous to date last above given.

The notes relative to the cadet mess following exhibit F-A, Report of 1887, are respectfully referred to, exhibiting correctly the workings of the mess to-day.

Statement exhibiting the work performed at the cadet laundry, West Point, N. Y., during the year ending April 30, 1891, with schedule of prices changed for laundry work.

The extension of the laundry asked for in 1887 was granted and now the cadet laundry is well equipped with necessary machinery and is of sufficient capacity.

Memorandum of clothing manufactured and repaired in the tailor shops, cadet quartermaster's department, for the year ending April 30, 1891.

Many members of the graduating class took advantage of their privilege to obtain their uniform dress coats, trousers, blouses, and capes at the Cadet Quartermaster's Department, and the articles of officers' uniform mentioned above were principally for members of the graduating class.

The addition to the cadet quartermaster's storehouse, authorized by Congress, is approaching completion and will when finished supply the necessary room for storage of supplies, workshops, etc.

Respectfully submitted.

W. F. SPURGIN,

Captain of Twenty-first Infantry,

Treasurer U. S. Military Academy, Quartermaster and Commissary of Cadets.

Maj. JOHN M. CARSON,

Secretary Board of Visitors

U. S. Military Academy, Washington City, D. C.

(Through the adjutant's office, U. S. Military Academy.)

Abstract of cost of provisions, property, etc., used, issued, and consumed at the cadet's mess, U. S. Military Academy, West Point, N. Y., from May 1, 1887, to April 30, 1891.

From—	To—	Provi- sions.	Contin- gent property.	Furni- ture.	Incident- als.	Total.	Aver- age number of cadets.	Cost of board.	Asses- sed for board.
May 1, 1887.	Apr. 30, 1888	\$41,997.93	\$1,908.95	\$683.51	\$6,549.12	\$50,514.51	263	\$192.97	\$192.00
May 1, 1888.	Apr. 30, 1889	41,083.63	1,513.21	865.00	5,803.05	49,264.89	256	193.43	194.00
May 1, 1889	Apr. 30, 1890	40,616.56	1,435.38	623.63	7,035.47	49,710.04	260	191.87	192.06
May 1, 1890.	Apr. 30, 1891	38,887.57	829.15	1,160.61	6,891.95	47,749.28	259	181.88	183.40

Tabulated statement of number of articles laundried from July 1, 1890, to June 30, 1891.

Month.	Clothesbags.	Sheets.	Pillowcases.	White shirts.	Nightshirts.	Under shirts.	Drawers.	White trousers.	White jackets.	Towels.	Socks, pairs.	Gloves, pairs.	Handkerchiefs.
	1890.												
July.....	371	724	590	1,555	366	2,720	2,598	8,610	380	3,862	3,201½	3,752½	4,844
August.....	403	782	553	1,377	383	2,529	2,387	8,559	637	3,683	3,885	4,017½	4,097
September.....	1,879	1,289	1,973	934	934	3,110	2,944	6,353	328	3,381	3,567½	4,888	6,077
October.....	1,670	982	1,583	794	794	2,311	2,247	48	6	4,024	2,060	3,508	4,316
November.....	1,706	962	1,585	793	793	2,358	2,268	16	.....	3,946	2,638½	3,352½	4,734
December.....	526	2,106	1,230	1,932	951	3,008	3,860	.....	.....	5,029	3,312½	3,531	6,006
1891.													
January.....	1,720	957	1,340	763	763	2,242	2,082	1	.....	3,854	2,484½	2,203½	4,807
February.....	1,677	946	1,276	736	736	2,294	2,133	43	11	3,870	2,441	2,114	4,393
March.....	505	2,085	1,125	1,685	932	2,794	2,721	6	3	4,912	3,009	2,667	5,563
April.....	1,694	956	1,394	778	778	2,327	2,135	8	.....	3,997	2,534	2,344½	4,706
May.....	1,695	923	1,469	753	753	2,539	2,307	3,285	386	4,089	2,795	2,780½	4,629
June.....	1,290	717	1,509	679	679	2,640	2,317	6,441	364	4,065	2,840	3,151	4,496
	1,805	19,028	11,209	18,688	8,862	30,872	25,999	33,367	2,115	50,712	34,369	35,321	58,748

Month.	Cuffs, pairs.	Collars.	Shoulder belts.	Waist belts.	Sword belts.	Gray trousers.	Gray jackets.	Blankets, single.	Spreads.	Vests.	Dusters.	Bathing suits.	Total pieces.
	1890.												
July.....	4,400½	8,976	1,596	1,600	147	2	.....	2	1	.....	1	14	50,313½
August.....	3,840½	8,269	1,824	1,825	188	2	2	4	.....	.....	.....	11	48,264
September.....	4,381	8,535	1,803	1,805	402	11	1	115	28	.....	2	14	55,820½
October.....	2,744	4,717	789	793	180	4	4	6	3	.....	.....	1	32,387½
November.....	2,507	4,274	743	745	190	6	1	6	.....	.....	.....	1	31,852
December.....	3,230	5,301	624	626	181	1	3	7	1	.....	.....	.....	39,525½
1891.													
January.....	2,395	4,194	528	529	118	4	.....	2	1	.....	.....	3	30,228
February.....	2,277	4,270	710	713	179	3	.....	.....	1	.....	.....	1	30,089½
March.....	2,993	5,550	830	831	175	42	14	2	1	.....	.....	.....	38,460
April.....	2,893½	5,097	715	715	171	11	4	.....	.....	.....	.....	1	32,462½
May.....	3,168	5,587	941	942	184	52	14	18	.....	1	1	.....	38,510½
June.....	3,431	6,887	1,638	1,641	173	21	4	29	.....	2	3	3	44,343
	38,211½	71,657	12,741	12,765	2,288	159	47	191	43	3	7	49	472,256½

Memorandum of clothing manufactured and repaired in the tailor shops, Cadet Quartermaster's Department, for the year ending April 30, 1891.

Articles.	Manufactured.	Repaired.
Blouses:		
Gray.....	362	640
Officers.....	60	
Coats:		
Dress.....	216	375
Over.....	160	276
Jackets:		
Shell.....	59	
White.....	175	
Trousers:		
Gray.....	565	1,083
Riding.....	59	
Flannel.....	81	
White.....	644	1,666
Officers.....	106	
Dress coats, officers.....	17	
Officers' capes.....	16	
Total.....	2,520	4,039

Laundry price list.

	Cents.		Cents.
Clothesbags.....	2	Cuffs, pairs.....	2
Sheets.....	3	Collars.....	1
Pillowcases.....	2	Shoulder belts.....	1
White shirts.....	3	Waist belts.....	1
Nightshirts.....	3	Sword belts.....	1
Undershirts.....	2	Gray trousers.....	10
Drawers.....	2	Gray jackets.....	10
White trousers.....	4	Blankets, single.....	10
White jackets.....	4	Spreads.....	10
Towels.....	2	Vests.....	4
Socks, pairs.....	1	Dusters.....	3
Gloves, pairs.....	1	Bathing suits.....	2
Handkerchiefs.....	1		

REPORT OF THE COMMITTEE.

Following is the report of the committee on Supplies and Expenditures for Cadets:

WEST POINT, N. Y., June 9, 1891.

To the Board of Visitors:

The committee on Supplies and Expenditures for Cadets submits the following report:

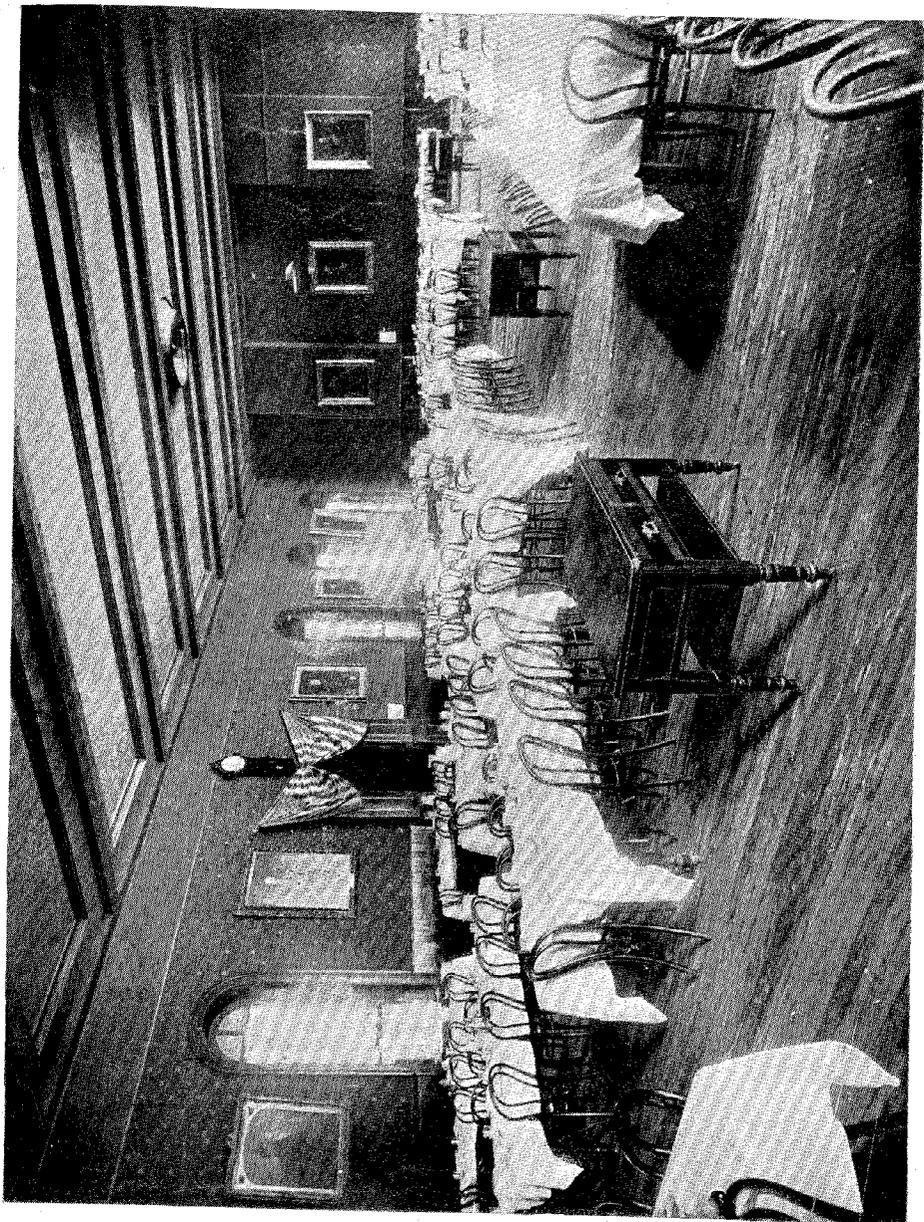
Your committee made frequent and careful examination into the supply department, visiting the mess hall and kitchen at various hours and making an inspection of the food and clothing supplies. In every particular the high standard of excellence in the quality of materials and in their intelligent preparation for the consumption of cadets which has marked the administration of this department under the direction of Capt. W. F. Spurgin has been maintained.

The supplies purchased are of the very best quality and the prices paid are as low as similar supplies can be purchased in the wholesale markets. The system of accounts is perfect and are so kept that the entire history of every individual transaction may be exhibited at any time. Recent improvements and additions made to the culinary department seem to make further expenditure unnecessary at this time. The dining hall, however, should be supplied with a tile floor. The present wood floor is in fair condition, but will necessarily have to be replaced the coming year. The daily tramp of nearly 300 men three times each day is calculated to wear out a wood floor in a comparatively short time.

In addition to this wear, a wood floor has frequently to be scrubbed with soap and water, which, for a considerable time following the operation, gives forth an odor suggesting the close proximity of a laundry and tainting the atmosphere of the room to a degree that is very unpleasant during the time that meals are being served. Previous boards of visitors have directed attention to this matter and recommended that the wood flooring be replaced with tiles. Your committee believe that such a change is demanded, that it would be more economical than wood, and that it would certainly be more wholesome and comfortable than wood. Your committee therefore renew the recommendations made in previous years for an appropriation to tile the floor of the dining hall.

Respectfully submitted.

J. C. BURROWS,
S. W. T. LANHAM,
JOHN M. CARSON.



GRANT HALL—CADET DINING ROOM.

FISCAL AFFAIRS OF THE ACADEMY.

Committee on Fiscal Affairs.—MESSRS. JOSEPH A. SCRANTON, ROBERT O. FULLER, and DAVID W. PAYNE.

The fiscal affairs of the Academy and the methods of administration are set forth in the report of the committee in charge of this branch and the papers which accompany the report. The pay of a cadet is \$45 per month. The corps is mustered for pay every two months, when muster rolls are made out by the tactical officers in charge of cadet companies. These rolls are transmitted by the commandant of cadets to the treasurer of the Academy, by whom they are in turn transmitted to the chief paymaster of the Department of the East at New York. An officer of the Pay Corps is then designated to pay the rolls, and this officer deposits the amount required to do this with the assistant treasurer of the United States at New York to the credit of the treasurer of the Military Academy, to be drawn upon by the latter in his official capacity as treasurer of the Corps of Cadets. When thus drawn the money is credited to the cadets individually, but the cadet is not permitted to handle any part of this money nor permitted to have in his possession money from any source whatever. When he goes on furlough at the end of two years from entrance or when he severs his connection with the Academy, he is given whatever money is due him, but under no other circumstances, and at no other times, is the cadet permitted to be possessed of money.

The account of each cadet is kept by the treasurer of the Academy, each individual being furnished with a pass book upon which all items of debit and credit are entered, so that the cadet can see at all times how his account stands. Out of the monthly pay of each cadet there is set aside the sum of \$4, thus reducing his allowance for subsistence to \$41 per month. The \$4 held back is for the purpose of creating an equipment fund with which to purchase the necessary outfit upon graduation. This equipment fund amounts to \$192 in four years. Out of the remaining \$41 of his monthly pay the cadet must pay for subsistence, clothing, washing, text books, policing barracks, gas, barber, baths, shoeblack, etc. Subsistence costs about \$16 per month. The cost of clothing depends upon the care exercised by the individual cadet. Washing is an expensive item in summer when white clothes are worn, but it is not so expensive as a whole. For policing barracks a charge of 85 cents per month is made against each cadet, and the charge for

gas is 50 cents per month. The charge for baths, shoeblack, etc., vary from 60 to 80 cents per month. Notwithstanding these numerous charges the pay of the cadet is sufficient to maintain him at the Academy by the exercise of proper economy. In the enforced economy which he is obliged to constantly practice the cadet acquires habits of economy which usually adheres to him through life. At all events he is taught to practice economy in his personal expenditures while at the Academy and the lessons thus inculcated for a period of four years can not fail to be beneficial.

REPORT OF THE COMMITTEE.

Following is the report of the committee on Fiscal Affairs:

WEST POINT, N. Y., June 9, 1891.

To the Board of Visitors :

The committee on Fiscal Affairs respectfully present the following report :

We have carefully examined the methods of conducting the fiscal affairs of the Academy and find they are dual in character. First, that which relates to the pay, subsistence, and clothing of the Corps of Cadets, and second, that which relates to the building and grounds and the subsistence of the enlisted men of the garrison of West Point and of the animals used in the cavalry and artillery instruction of the cadets. The former is under charge of Capt. W. F. Spurgin, Twenty-first Infantry, and the latter under Capt. William H. Miller, of the Quartermaster's Department.

Your committee visited the office of Captain Spurgin, examined his records and books of account, and received from him a full verbal explanation of the way in which he conducts his exceedingly interesting and important department.

From the examination of the office made by your committee the following appears:

The pay of a cadet is \$45 per month. Every 2 months a muster-roll of each company of cadets is made out and these rolls are forwarded by Captain Spurgin to the proper paymaster. They are then paid by placing to the credit of Captain Spurgin, as treasurer of the United States Military Academy, with the assistant treasurer of the United States at the city of New York, the entire sum of the rolls.

In Captain Spurgin's office twenty-eight separate accounts are kept. His office is the bank of the cadets. Their personal deposits consist of the sums deposited by them when they first report and their regular bimonthly pay.

The cadet never handles any part of his pay excepting when he goes on furlough or severs his connection with the Academy. Captain Spurgin keeps an account with each cadet. Each cadet has an account book and can see at any settlement just how his account stands and the items of debit and credit of which it is composed.

Out of the monthly pay (\$45) of the cadet there is withheld the sum of \$4 monthly. This is under no circumstances to be expended prior to his graduation. It makes what is termed the equipment fund, and in 4 years amounts to \$192. It is expended by the cadet upon his graduation in buying his equipment as an officer.

Out of the \$41 thus remaining as the available monthly pay of the cadet all of his expenses are paid through Captain Spurgin. The cadet thus pays for his subsistence, clothing, text-books, washing, policing barracks, gas, barber, shoe-black, baths, etc. His subsistence costs him upon an average about \$16 per month. It is a close matter to live upon \$41 per month, but it is done under this system and the cadet is taught that invaluable lesson, to live within his means.

Captain Spurgin's system of purveying and his management of the cadet mess are admirable in every way. The young men are well fed. This is the result of careful system and close personal attention to details by Captain Spurgin. He possesses great natural aptitude for his present position and it is the opinion of your committee that he should be retained in it.

Your committee also examined the books and papers of Captain Miller, and received from him full and satisfactory explanations of the methods of conducting business. Attached to this report is a statement from Captain Miller showing the amounts appropriated, disbursed, and remaining unexpended under the several heads of appropriations for the support of the Academy for the current fiscal year. There is also appended a statement from Captain Spurgin exhibiting condition of funds in his charge.

Attention is directed to the fact that the cadets were required to pay \$1,017 for gas during the year. Your committee believe that Congress should make an appropriation for the manufacture of gas to avoid this charge against the cadets.

Your committee have no criticism to make upon the conduct of the fiscal affairs of the Academy so far as they are administered by Captains Spurgin and Miller. Both these officers conduct their business under systems made perfect by years of usage, and we found each of them efficient and industrious officers and attentive and courteous gentlemen.

Respectfully submitted.

JOSEPH A. SCRANTON,
ROBERT O. FULLER,
DAVID W. PAYNE,
Committee.

STATEMENT OF CAPTAIN MILLER.

HEADQUARTERS UNITED STATES MILITARY ACADEMY,
QUARTERMASTER'S OFFICE,
West Point, N. Y., June 9, 1891.

SIR: In accordance with your request, I have the honor to inclose herewith for the information of the Board of Visitors an abstract showing the amounts appropriated, disbursed, and remaining unexpended under the several heads of appropriations for the support of the Military Academy during the fiscal year 1890-'91.

The funds shown on the abstract as received have been supplied by request of the honorable Secretary of War upon requisition of the Superintendent of the Military Academy forwarded at such times as the necessities of the service demanded.

The amount reported as disbursed is supported by vouchers which are forwarded monthly to the War Department for the approval of the Secretary of War and then transmitted to the Treasury Department for audit.

The amount reported as unexpended is deposited to my official credit, as disbursing officer, in the subtreasury of the United States in New York City. At the end of the fiscal year such funds as are not needed to cancel outstanding indebtedness will be transferred to the Treasurer of the United States.

In addition to the funds referred to in Abstract A, herewith, I inclose an abstract of the fund known as the "gas fund."

Congress annually appropriates \$3,500 for gas, coal, oil, candles, lanterns, matches, chimneys, and wicking for lighting the academy, chapel, library, cadet barracks, mess hall, shops, hospital, offices, stables and riding hall, sidewalks, camp, and wharves.

The gas consumed in these places cost more than the amount appropriated. A tax therefore becomes necessary. Gas consumed at all places not enumerated in the act is sold at actual cost of manufacture with a small increase for contingencies, which includes a portion of the deficiency above named and also provides for contingent repairs which experience has shown to be necessary from time to time. The remainder of the deficiency is charged to cadets. They pay for gas at the rate of 30 cents per month for the time they are actually present.

Attention is invited to the amounts paid by the several classes of persons consuming gas.

I also inclose an abstract of the fund known as the "Special contingent fund, U. S. M. A.," which is derived from the rent of certain public structures at this post. Congress authorizes its expenditure under the supervision of the Superintendent of the Academy, the same to be accounted for annually, accompanied by proper vouchers, to the Secretary of War.

Very respectfully, your obedient servant,

W. H. MILLER,
Captain and Assistant Quartermaster,
U. S. A., Disbursing Officer, U. S. M. A.

Hon. JOSEPH A. SCRANTON,
Chairman Committee on Fiscal Affairs.

Abstract of appropriations made for the support of the Military Academy for the fiscal year ending June 30, 1891, disbursed by Capt. W. H. Miller, assistant quartermaster, U. S. Army, disbursing officer U. S. Military Academy.

	Amount received.	Expended to include June 9, 1891.	Unexpended balance on hand.
Current and ordinary expenses	\$61,431.15	\$49,716.14	\$11,715.01
Miscellaneous items and incidental expenses.....	21,020.00	16,123.33	4,896.67
Buildings and grounds.....	60,000.00	48,869.75	11,130.25
New Academy building.....	16,000.00	11,873.09	4,126.91
New gymnasium building.....	53,500.00	21,678.69	31,821.31
Total.....	211,951.15	148,261.00	63,690.15

I certify that the above abstract is correct, and that the expenditures reported have all been made by the undersigned on vouchers approved by the Superintendent of the Military Academy.

W. H. MILLER,
Captain and Asst. Q. M., U. S. Army, Disbursing Officer, U. S. M. A.
 WEST POINT, N. Y., June 9, 1891.

Abstract of receipts and expenditures pertaining to the U. S. Military Academy gas fund, between July 1, 1890, and June 9, 1891.

Receipts:		
Sales of coke		\$596.50
Sales of tar		514.46
Sales of gas to officers.....		1,533.53
Sales of gas to civilians.....		685.12
Sales of gas to buildings		473.58
Sales of gas to cadets		1,015.70
Sales of gas fixtures.....		37.33
		<u>4,856.22</u>
On hand July 1, 1890.....		655.16
Total.....		<u>5,511.38</u>
Expended to include June 9, 1891.....		<u>5,171.81</u>
Unexpended balance on hand June 9, 1891		339.57

I certify that the above abstract is correct, and that the expenditures reported have all been made by the undersigned on vouchers approved by the Superintendent of the U. S. Military Academy.

W. H. MILLER,

Captain and Assistant Quartermaster, U. S. A., Director of Gas Works.

WEST POINT, N. Y., June 9, 1891.

Abstract of receipts and expenditures pertaining to the special contingent fund, U. S. Military Academy, between July 1, 1890, and June 9, 1891.

On hand July 1, 1890.....	\$645.54
Receipts:	
By rent of West Point Hotel	\$3,500.00
By rent of post-office cottage.....	112.50
By rent of public stables	100.00
By rent of confectionery store.....	787.50
	4,500.00
Total.....	5,145.54
Expended to include June 9, 1891	2,473.14
	2,672.40
Unexpended balance on hand June 9, 1891.....	2,672.40

I certify that the above abstract is correct, and that the expenditures reported have all been made by the undersigned on vouchers approved by the Superintendent of the U. S. Military Academy.

W. H. MILLER,

Captain and Asst. Quartermaster, U. S. A., Treasurer Special Contingent Fund.

WEST POINT, N. Y., June 9, 1891.

STATEMENT OF CAPTAIN SPURGIN.

HEADQUARTERS U. S. MILITARY ACADEMY.

OFFICE TREASURER, QUARTERMASTER, AND COMMISSARY OF CADETS,

West Point, N. Y., June 9, 1891.

SIR: In compliance with your verbal request, I have the honor to submit the following, viz:

(1) *Statement of the treasurer U. S. Military Academy, May 19, 1890.*

DR.	Amount.	CR.	Amount.
Assistant treasurer	\$29,539.12	Cadet laundry.....	\$4,724.52
Cadet cash.....	70.00	Cadet quartermaster.....	7,731.98
Trust funds.....	20,000.00	Cadet subsistence department.....	531.49
Cash on hand	231.26	Corps of Cadets.....	7,211.21
		Dialectic Society	25.48
		Equipment fund.....	29,006.00
		Miscellaneous fund.....	9.70
Total.....	49,840.38	Total	49,840.38

(2) *Statement of receipts and disbursements made by the treasurer U. S. Military Academy from May 19, 1890, to May 19, 1891.*

	Amount.		Amount.
DISBURSEMENTS.		RECEIPTS.	
Assistant treasurer (deposited)	\$151,266.06	Assistant treasurer (amount of checks drawn)	\$151,089.34
Balances paid	13,302.39	Balances paid	13,302.39
Barber, etc	568.60	Barber, etc	568.60
Cadet cash	11,433.71	Cadet cash	11,503.71
Cadet hospital	2,615.81	Cadet hospital	2,624.19
Cadet laundry	8,643.28	Cadet laundry	9,459.99
Cadet quartermaster	72,222.57	Cadet quartermaster	66,389.23
Cadet subsistence department	55,501.72	Cadet subsistence department	55,658.05
Confectioner	148.00	Confectioner	148.00
Corps of Cadets	169,377.86	Corps of Cadets	173,738.16
Damages, ordnance	24.24	Damages, ordnance	24.24
Dancing	615.00	Dancing	615.00
Dentist	719.00	Dentist	719.00
Deposits	16,642.53	Deposits	16,832.53
Dialectic Society	317.13	Dialectic Society	310.40
Equipment fund	10,888.00	Equipment fund	12,926.00
Expressage	20.30	Expressage	20.30
Gas	1,070.60	Gas	1,070.60
Hops and german	32.50	Hops and german	1,620.90
Miscellaneous fund	545.64	Miscellaneous fund	26.82
Miscellaneous items	20.50	Miscellaneous items	551.96
Oaths	151,356.06	Oaths	20.50
Paymaster	58.30	Paymaster	151,266.06
Periodicals	70.50	Periodicals	58.30
Photographs	5,695.83	Photographs	70.50
Policing barracks, etc		Policing barracks, etc	5,730.23
Total	674,777.03	Total	676,345.00

(3) *Statement of the treasurer U. S. Military Academy, May 19, 1891.*

	Amount.		Amount.
Assistant treasurer	\$29,715.84	Cadet hospital	\$8.38
Paymaster	90.00	Cadet laundry	5,541.23
Trust funds	20,000.00	Cadet quartermaster	1,898.64
Cash on hand	1,799.23	Cadet subsistence department	687.82
		Corps of Cadets	11,571.51
		Deposits	190.00
		Dialectic Society	18.75
		Equipment fund	31,644.00
		Miscellaneous fund	4.02
		Miscellaneous items	6.32
		Policing barracks, etc	34.40
Total	51,605.07	Total	51,605.07

I have the honor to ask attention to the Report of the Board of Visitors for 1890, p. 19, where reference is made to previously published statements and communications from this office contained in the Reports of the Board of Visitors for 1887 and 1889, which give full information relative to the affairs of this office, and have the honor to be,

Very respectfully, your obedient servant,

WM. F. SPURGIN,

Captain Twenty-first Infantry, Treasurer U. S. Military Academy.

HON. JOSEPH A. SCRANTON,

Chairman Committee on Fiscal Affairs.

HEADQUARTERS U. S. MILITARY ACADEMY,

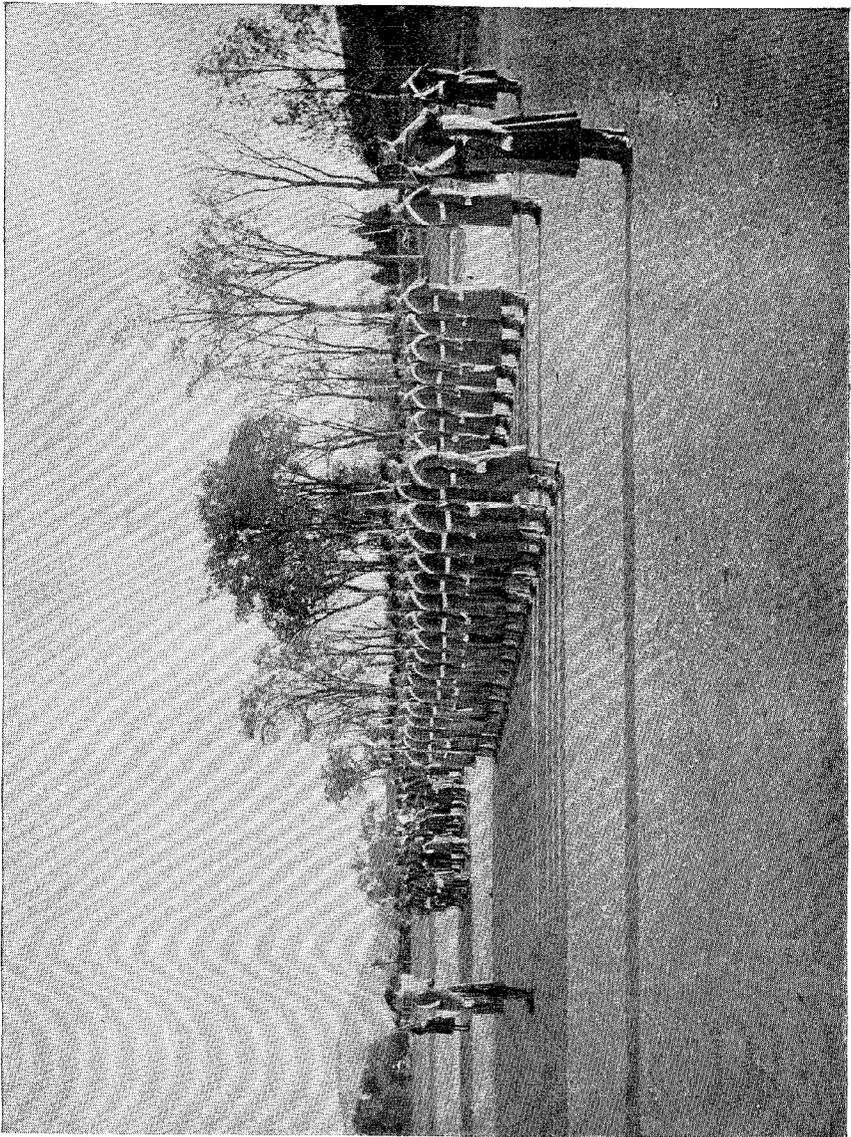
West Point, N. Y., June 9, 1891.

Respectfully transmitted to Hon. J. A. Scranton, member Board of Visitors.

By order of Colonel Wilson:

J. M. CARSON, Jr.,

Second Lieutenant Fifth Cavalry, Adjutant.



Copyright.

GUARD MOUNTING,

Stoddard, Glens Falls, N. Y.

MISCELLANEOUS.

THE MILITARY ACADEMY BAND.

The condition of the Military Academy band was given careful consideration by the Board. The matter was discussed with Colonel Wilson and other officers of the Academy, and able arguments were made by Lieut. Edward E. Harden, of the Seventh Infantry, who has charge of the band, and by Bandmaster Clappé, in favor of a reorganization. These gentlemen presented facts and figures which impressed the Board with the belief that the band should be increased in numbers, and that it should be reorganized so that good musicians would be attracted to it. As at present constituted it is surprising that musicians of any merit can be induced to remain in the Academy band. Indeed, the greatest difficulty is experienced in securing musicians and in retaining them after they have been secured. The band is now limited to 24 pieces, and the men are graded into three classes, who are paid \$17, \$24, and \$34 per month, respectively. It is notorious that the bands of the United States Army are poorly equipped, inadequately paid, and small in numerical strength. They are not to be compared with first-class civilian bands in our own country, nor with the regimental bands of any country which maintains a military establishment. While it is not within the province of this Board to offer suggestions and make recommendations so far as the bands of the Army are concerned, we do earnestly recommend legislation looking to the reorganization of the Military Academy band. Music has become an important factor in our national life, and viewed either in its educational tendencies or as a source of amusement for the people, should command the attention of the Government.

While private enterprise has furnished grand orchestras, splendid bands, and fine choral bodies, our Government has done absolutely nothing to keep pace with the growth and development of music, nor has anything been done to encourage a taste for music among the people. A national band so wretchedly equipped as that at the Academy is an offense against the music-loving people of the United States and a discredit to the Government. This band should be placed upon a respectable footing in its equipment, its numerical strength, and the monthly pay of its members, and this can be done at so comparatively a small addition to the present annual allowance that we are hopeful Congress will act favorably upon this recommendation. The World's Fair at Chicago will doubtless bring to our country some of the famous

bands of Europe and Spanish America, and this fact furnishes an additional reason for preparing the band at the Academy, the only distinctive band known to our military service, for presenting a creditable appearance. The band of the Academy may not be called upon to compete at Chicago with the bands of other countries, but West Point will undoubtedly be visited during the season of the fair by distinguished military, and by skillful and accomplished musicians, men from every country of the world. These men are in the habit of hearing well-equipped bands perform, and to them the Military Academy band with twenty-four pieces will present a sorry spectacle.

We believe that the bandmaster at the Military Academy should have the grade of a second lieutenant of infantry. The nature of his duties, the scientific and theoretic knowledge required, his relation to the discipline of the men under his charge, require that the position should be made one of relatively official equality with other instructors at the institution. The band should be increased to at least 40 performers, divided into two classes, and paid as much as similar talent is paid in civil life. The men should be enlisted for no other duty than that properly belonging to a band, and should be given every opportunity to exercise their professional skill not inconsistent with military discipline, as well for the benefit of the people at large as for the Government. There is no reason why West Point should not furnish trained musicians as well as trained officers for the Army, and we believe that the band at the Academy could be made to do this with very little effort and at a trifling expense above that now paid for the present band organization. If a proper organization was established the chief musicians for the Army could be drawn from the Military Academy Band, and young men could be trained at West Point to be drummers and trumpeters, and sent to regiments fully prepared to perform their duties.

If a system should be adopted such as is here outlined, the men sent to West Point for instruction in music could be utilized in the band of the Academy while undergoing instruction, and in this way that organization would gain additional numerical strength while acting as a practical school for musicians for the Army. Whether the band is or is not increased by the action of Congress, we recommend that the Secretary of War direct that all recruits for the field music of the Army enlisted within a certain radius of West Point be sent there for instruction. The advantage which would follow the establishment at West Point of a school for musicians is pointed out in a communication from Bandmaster Clappé to the secretary of the Board, which is appended to this report, and to which the attention of the Secretary of War and the Adjutant-General of the Army are invited.

The Board after fully considering this matter unanimously decided to recommend the following:

- (1.) That the bandmaster be given the grade of a second lieutenant of infantry, with the pay and allowances of that grade.

(2.) That an assistant bandmaster be established to rank as a chief musician, with the pay and allowances of that grade.

(3.) That the band be increased to 40 performers, to be divided into two classes. The first class to consist of 25 performers, to be paid \$40 per month each; the second class to consist of 15 performers, to be paid \$30 per month each. Both classes to have the allowances now granted enlisted men.

(4.) That at least 20 recruits be sent every year to West Point for instruction in music, these recruits to be retained there at least 12 months before being assigned to regiments.

The amount now annually appropriated for the pay of the band at the Academy is \$9,240. Should it be increased to 40 performers, and classified as we here recommend, the annual appropriation would be \$17,400, an increase of only \$8,160, a very insignificant sum when the great advantages that would attend it are considered. We have no doubt that this increase would be approved by the great majority of the people.

VIEWS OF BANDMASTER CLAPPÉ.

Following is the letter addressed to the secretary of the Board by Mr. Arthur A. Clappé, teacher of music and bandmaster at the Academy:

WEST POINT, N. Y., *September 14, 1891.*

DEAR SIR: In compliance with your request I beg to submit the following suggestions and recommendations relative to the reorganization and improvement of the U. S. Military Academy Band.

By act of Congress the band is limited to 24 musicians and 1 teacher of music. The number, aside from other considerations, is too small to produce that volume of tone necessary to distinctly mark the cadence for a body of troops on the march.

This fact is recognized on all hands, and nowhere more than among the regiments of the State National Guards. For instance, among the New York regiments the bands average a membership of 55 skilled performers. The Seventh Regiment turns out with at least 50, the Twenty-second with 65, the Seventy-first with 50, and it has been decided to increase the strength of the band of the Sixty-ninth Regiment to 65 instrumentalists. The reason of this large membership is to insure the music being heard by troops in rear of the column.

When it is remembered that usually such regiments parade in the confined thoroughfares of large cities, and that the buildings on either side, reflecting the tone, add to its volume, or at least do not permit the tone to escape, it must be admitted that the experience leading up to and compelling the support of such large musical organizations is the outcome of the positive needs of the situation, not purely ideal nor an effort for show.

If, then, it be necessary, under such circumstances and where the conditions are favorable for the propagation of sound, to have and maintain huge bands for military purposes, is it not doubly so where, as at West Point, the band, so inferior in point of numbers, invariably performs on a large open plain, where the music is diffused and lost before really achieving the purpose for which intended?

But apart from the purely military uses of the U. S. Military Academy band the artistic side of its duties, as exhibited in concerts it is called upon to perform, should be considered. It is in these performances as well as upon the parade that the band is expected to maintain the credit of the only military institution of a great country.

The only legalized and representative band of our military system should be adequate to fulfill its functions in equal degree with the leading bands of the armies of France, Germany, and England. It can not reasonably be expected to do this unless liberal provision is made for its maintenance. Although every possible effort is made to arrive at good results with the material at our disposal here, I am deeply conscious of the fact that visitors to the Academy, among whom are included ministers, military men, and persons of distinction from foreign countries, carry away with them the impression that the musical appreciation of those who legislate for the Army is of a low standard.

Though Congress has enacted that the band shall consist of 24 musicians and 1 teacher of music, the provision that divides this organization into three classes defeats the intention of the law. As an instance of this, I may state that for nearly six months two vacancies have existed in the third class, and, although numerous applications have been received from musicians seeking employment, it has been found impossible to fill them. The reason of this lies in the fact that musical services are very much better remunerated in civil life than at West Point. The pay of a third-class musician is \$17 per month, with quarters and rations. He must be a poor musician, indeed, who outside can not make at least four times that amount in a month. In New York City orchestra players receive from \$15 to \$40 a week for their services at performances. They supplement these amounts by playing other engagements, as parades, excursions, and balls, some of which pay not less than from \$5 to \$7 each engagement. It will thus be apparent that we at West Point can not offer, even though all positions were paid as in the first class (\$34 per month), any inducements equal to those in civil life.

If the Academy were so located that the bandmen could secure outside playing, the case might be somewhat different; but being practically isolated these men, except on rare occasions, have but little opportunity to add to their inadequate income. This fact must be taken into account when dealing with the subject of the reorganization of the band, because the Government, seeking to employ what may be classed as skilled labor, has to face outside competition in a market where the commodity sought brings a fair and reasonable price. Where any individual is employed by the Government to perform work requiring special skill, he should be paid prices such as are paid for similar employment by private parties. If this be not done the service suffers by being intrusted to incompetent hands. This is precisely the case here. Everything of which our musicians are capable is elicited from them, yet we fall short and can not hope, under the present system, to attain results such as could be attained were we in position to offer better inducements and in return secure a better class of musicians.

I would, therefore, respectfully suggest that the U. S. Military Academy Band be reorganized so as to consist of 40 members and 1 bandmaster and 1 assistant bandmaster. The new organization should be divided into two classes as follows: 20 musicians at \$34 per month, 20 at \$30 per month, with privileges and allowances such as are accorded to enlisted men of the Army.

The bandmaster, as intimated above, should be accorded the status of an officer, for reasons of discipline as well as in recognition of the fact that the man who holds the position must possess superior musical attainments and socially maintain himself with proper dignity.

In addition to the foregoing I would venture to suggest that steps be taken looking to the supply of musicians and band leaders for the Regular Army from some central source, that is, from an institution under Government control. The facilities that an increased and better paid organization at West Point would afford might be turned to account in this direction. Army bands, as well as the band here, experience great difficulty in obtaining musicians to fill the constantly occurring vacancies, and, further, it frequently happens that commanding officers have to depend upon the good offices of some music-dealer when requiring a man to fill the position of band leader.

All trouble and uncertainty might be avoided by having organized in connection with the Academy band a school of instruction for military musicians. In my opinion there are many young men in the country who, having musical inclinations, would be found desirous of entering such an institution for the sake of the education afforded and who would be willing to engage to serve an enlistment in the Army which would date from the period of their transfer as a trained musician to some regiment.

But, supposing such a plan not feasible, it would still be possible to have recruits assigned from recruiting depots to undergo one year's training in music at West Point before joining regiments needing their services. If, say, twenty or more men were sent here for instruction in music from November in one year to November in the next, a source of supply would be created that would be of the greatest possible benefit to the Army and meet the warmest approval of regimental commanders and other officers. But, beyond this, provision should, in the first instance, be made for the examination of all candidates for the position of chief musician in the Army, and who could not hope to receive an appointment unless capable of undergoing the ordeal. I would, however, advise that the foregoing be only a temporary measure, and in force up to the time when Army musicians could be drawn upon to supply the material from which to train chief musicians. The course necessary to fit a man for such office would extend over a period of at least three years, that is, three years' training in the higher branches of music at the school for instruction in military music. No man should be eligible for entry who could not pass a reasonable preliminary examination and who had not served at least one enlistment in the Army.

I believe that such a system of itself would have a beneficial influence upon Army musicians, who now can not hope for promotion to the best musical position in the bands, however much they might wish to strive to attain it. Unless some such plan be adopted the present law, which permits men to retire at the expiration of practically two years and nine months, will so deplete the ranks of Army bands as to render them next to useless and make it impossible to replace the retiring members.

It occurs to me that the approaching World's Fair at Chicago might reasonably be urged to strengthen the plea for the immediate increase of the Military Academy Band.

Following the precedent of European countries, there is great probability that application will be made for permission to utilize the services of Government bands. Already rumors are current that negotiations are in progress to bring over the foremost and representative army bands of Europe. In event of such a movement being successful, our bands would cut a sorry figure by comparison, unless the work be at once commenced of building them up to a higher degree of perfection, and such as to enable them to creditably represent the musical status of the country.

Yours, respectfully,

ARTHUR A. CLAPPÉ,

Teacher of Music, U. S. Military Academy.

Maj. JOHN M. CARSON,

Secretary Board of Visitors, U. S. Military Academy.

VIEWS OF BANDMASTER SOUSA.

The U. S. Marine Band is similarly situated to the Military Academy Band, except that the former has forty performers. At the last session of Congress the Committee on Naval Affairs reported a bill to increase the numerical strength of the Marine Band and to put it upon a footing which an organization of this character deserves. The bill was approved by the Secretary of the Navy, who addressed a letter to the chairman of the Committee on Naval Affairs, inclosing with approving

comments a letter from Bandmaster John Philip Sousa, in which urgent reasons were given for the reorganization of the Marine Band. These reasons are pertinent in the case of the Military Academy Band, and we therefore produce in this report Bandmaster Sousa's letter :

WASHINGTON, D. C., *December 17, 1890.*

SIR: I have the honor to submit, in conjunction with the draft of a bill for the reorganization of the band of the United States Marine Corps, the following statement explaining the reason why the band should be placed on a proper and equitable basis with other famous bands. The leading government bands of the nations of the Old World, notably the Garde Républicaine, the Prussian Guards, the Seventy-third Austrian, the Russian Mounted Guards, the Grenadier Guards, and others, number from 50 to 90 men each. The Mexican National Band, which made a tour of the United States a few years since, comprises nearly 90 musicians, and I am informed that many of the South American governments have bands consisting of 60 to 80 pieces. Even Japan and Turkey have well-equipped bands, based on modern instrumentation. Many of the orchestral bands of Europe have a membership of at least 100, while Lamoureux, of Paris, numbers 110.

Among the militia bands of our land, Gilmore is allowed by regimental regulations 65 musicians, and many others have from 50 upwards. The large factories of America have bands numbering from 30 to 75 performers. These bands are sustained by hiring musicians to perform some light employment in the factory and allowing them to accept musical engagements whenever offered. Among the well-known organizations of this class may be mentioned the Elgin Watch Company's, the Pullman Car Company's bands. The men constituting the membership in the factory bands are assured a livelihood throughout the year and receive wages largely in excess of that paid by the Government to its musicians. Where formerly we could recruit our members from musical talent of that class, the supply is almost entirely shut off, for of course nearly every man would prefer employment in a factory at \$2, \$3, or \$4 a day with opportunities of following his profession, and thus adding largely to his income, rather than becoming an enlisted man at \$13 to \$38 per month, with few opportunities of adding to his governmental compensation.

Another and much greater competitor in bidding for the musician's services is the theatrical manager. He pays salaries varying from \$15 to \$42 per week to the rank and file of the profession, and with very few exceptions allows his musicians to send substitutes when a more profitable engagement is offered. During the summer months the myriad of watering places create a great demand for the musician's services, and he is in nearly every instance well paid. When it is understood that theatrical musicians are employed but a few hours during the evening, and with the exception of Monday morning and Saturday afternoon have the entire week to pursue their calling elsewhere, it is not to be wondered that we find it difficult to secure and keep suitable material for our organization. Dime museum and variety hall managers here pay their musicians \$15 per week; the Government pays musicians of the same skill about that per month. Grand opera orchestral players receive about \$40 a week; our soloists receive about that sum per month. Theatrical and comic opera managers pay their conductors from \$120 to \$450 a month; the United States pays the bandmaster of the Marine Band \$94 per month, with 13 cents a day added for commutation of rations. The Twenty-second Regiment of New York pays Mr. Gilmore a personal salary of \$2,500 a year, for which in return he gives about two weeks of his time. The Boston Symphony Orchestra pays their conductor a salary of over \$2,000 a month; the proposed reorganization does not ask the Government to pay the bandmaster of the Marine Band that much a year.

The city of New York appropriates \$25,000 every year for open air band concerts during the summer months. In proportion not one-half that amount is asked for our band, virtually the national band, and the band that should be as great among bands as America is great among nations.

I beg to present the commercial side of the question: The present duty on musical merchandise and books, based on the value of imports of former years, amounts to between \$300,000 and \$900,000 a year. Business men assert that it is good policy to spend a dollar to make a dollar, and if our legislators hesitate to spend Government money for music, the art, they should in all fairness spend it for music, the business.

There can be little doubt but that the professional musician creates the demand for musical literature and musical merchandise. Were it not for him the national revenue would lose that amount. As a plain business proposition it is but reasonable to assume that the Government should use a portion of this large sum in further developing the musical culture and musical resources of our land. No better way can be devised than by proper equipment of the musical bodies in its employ, and especially the organization that represents it musically on official occasions. Begging your earnest consideration for this measure, and requesting that you will favorably recommend it to Congress, I am,

Very respectfully,

JOHN PHILIP SOUSA,
Bandmaster United States Marine Corps.

The SECRETARY OF THE NAVY.

GYMNASTIC INSTRUCTION AND EXERCISES.

The calisthenic exercises by the fourth class was an exceedingly interesting and creditable exhibition, in which the entire membership of the class participated. The performances, in addition to contests with foils, broadswords, and bayonets, included all exercises taught in the gymnasium. Considering that the participants had but 9 months of instruction a wonderful degree of efficiency was shown, and in view of the fact that the equipment of the gymnasium at the Academy, both as regards building and paraphernalia, is very limited, special credit is due Mr. Herman Koehler, who has charge of this department. This gentleman is an able and accomplished instructor, and performs an amount of labor that challenges admiration. In addition to his duties in the gymnasium he is master of the sword, and teacher of swimming and dancing, the last being taught the cadets of the first year in order to give grace and ease to their movements. All this labor is performed alone by Mr. Koehler, and the entire fourth class, generally numbering over 100 members, are his pupils. An act should be passed conferring upon Mr. Koehler the assimilated rank of second lieutenant of infantry, and he should be given an assistant. The leading colleges of the country recognize the importance and value of physical training, and many of them have made those in charge of this branch of instruction members of the faculty.

The great efficiency of Mr. Koehler's services is attested by the performances of his pupils, and their value is exhibited by the muscular and well-developed limbs and bodies of the cadets who have been under his instruction for 9 months of the first year at the Academy. The conferring of rank upon this accomplished instructor would be not only a proper recognition of his services, and the means of attaching him permanently to the Academy, but would add to his efficiency, because at a strictly military school like that at West Point, rank and authority

must be synonymous in order to promote and maintain thorough discipline. The academic board is unanimous in the opinion that the instructor in calisthenics and the sword should have the rank of second lieutenant, and recommendations to this effect have been made by the Superintendent and by former Boards of Visitors. We earnestly renew this recommendation. We also join in the recommendation heretofore made that an assistant instructor of gymnastics be provided. These two objects could be accomplished at the coming session of Congress by a paragraph in the Military Academy appropriation bill. The new gymnasium building will be ready for occupation in the spring of 1892, and it is to be hoped that Congress will liberally provide for its proper equipment, and make it what such a department at the United States Military Academy should be.

In the opinion of the Board it is a mistake not to continue the instruction in gymnastics beyond the first year. We realize that this could not heretofore be done to any extent, with the limited resources of the old building devoted to this class of instruction, and with the poverty of equipment which has been heretofore provided. But when the new gymnasium building is completed and thoroughly equipped, we recommend that steps be taken to have this class of instruction continued throughout the 4 years.

PORTRAIT GALLERY IN GRANT HALL.

Several years ago, through the generosity of Mr. George W. Childs, of Philadelphia, who donated oil portraits of Generals Grant, Sherman, and Sheridan, a portrait gallery was started of distinguished graduates of the Academy. The three portraits alluded to were hung in Grant Hall, and formed the nucleus of what has become a very valuable collection of paintings of men who achieved distinction in the military service of the United States. Several portraits which had been previously donated to the Academy, and which were hanging in the Library, were transferred to Grant Hall, and additions have been made from time to time to the collection through the generosity of friends and relatives of distinguished alumni. This collection now numbers seventeen valuable oil portraits, all of which are hanging in the hall in which the cadets daily assemble three times each day for meals. It is to be hoped that this collection will receive other additions, and that before long the portraits of Hancock, Thomas, McPherson, Canby, and other distinguished soldiers will be found on the walls of Grant Hall. Following is a list of the portraits now at the Academy:

(1) Maj. Gen. JOHN F. REYNOLDS.—Presented by the First Corps, Army of the Potomac. Members of the committee on presentation: Gen. R. Coulter, Gen. C. S. Wainwright, Col. Chapman Biddle, and Col. Thomas Hewson Bache. Painted by Alexander Lawrie. Received November, 1878.

(2) Maj. Gen. JOHN SEDGWICK.—Purchased. Painted by H. Balling, 1864. Received February, 1870.

- (3) Col. JOHN J. ABERT, Chief of Topographical Engineers.—Presented by ———. Painted by ———. Received ———.
- (4) Maj. Gen. JOHN M. SCHOFIELD.—(*Superintendent's Portrait*.) Painted by J. Carroll Beckwith. Received May, 1880.
- (5) Gen. ULYSSES S. GRANT.—Received June 1, 1887.
- (6) Gen. WILLIAM T. SHERMAN.—Received June, 1889.
- (7) Gen. PHILLIP H. SHERIDAN.—Received June, 1889. Presented by George W. Childs, Philadelphia, Pa. Painted by Mrs. L. H. Darragh. Unveiled with appropriate ceremonies, October, 1889.
- (8) Maj. Gen. EDWARD O. C. ORD.—Presented by Dr. Ord, of Washington, D. C., to the Alumni Association. Painted by ———. Received March, 1885.
- (9) Brig. Gen. WESLEY MERRITT.—(*Superintendent's Portrait*.) Painted by J. Carroll Beckwith, 1887. Received February, 1887.
- (10) Capt. BRADFORD R. ALDEN. (*Commandant of Cadets, 1848 to 1852.*) Presented by Mrs. B. R. Alden. Painted by John F. Weir, 1887. Received July 30, 1887.
- (11) Bvt. Maj. Gen. GOUVERNEUR K. WARREN.—Presented by Messrs. Joseph Choate, James C. Carter, James J. Higginson, and other gentlemen of New York City, and friends in Newport, R. I., through Mr. Robert Stickney. Painted by Alexander Lawrie. Received December, 1889.
- (12) Bvt. Maj. Gen. THOMAS SWORDS (*Colonel and Assistant Quartermaster General*), as he appeared when captain of the First Dragoons.—Presented by Mrs. Thomas Swords (through her sister, Ellen H. Cotheal). Painted by ———. Received August, 1890.
- (13) Maj. Gen. GEORGE G. MEADE.—Presented by Henry Carey Baird, of Philadelphia. Painted by T. Henry Smith, 1890. Received May 23, 1891.
- (14) BVT. MAJ. GEN. ROBERT O. TYLER, *Lieutenant-Colonel and Deputy Quartermaster-General*.—Presented by his brother, E. S. Tyler, of Hartford, Conn. Painted by W. R. Wheeler, 1875. Received September, 1890.
- (15) Col. JAMES GILCHRIST BENTON.—Presented by Mr. William Seward Webb, of New York City. Painted by J. Carroll Beckwith. Received June, 1891.
- (16) Maj. Gen. JAMES BREWERTON RICKETTS.—Presented by Benjamin W. Richards, of Philadelphia, Pa. Painted by Robert Hinckley, of Washington, D. C. Received June, 1891.
- (17) Maj. Gen. GEORGE B. McCLELLAN.—Presented by General E. Burd Grubb, of New Jersey. Painted by Anthony Lamore. Received June, 1891.

THE GRADUATION EXERCISES.

The graduation exercises were held on the green in front of the chapel on the morning of June 12, in presence of a large audience. Colonel Wilson, the Superintendent of the Academy, presided. Following was the programme of exercises.

1. The graduating class will proceed to the designated place escorted by the Corps of Cadets, under the command of the commandant of cadets.
2. Prayer.
3. Music: U. S. Military Academy band.
4. Address to graduating class: Hon. Julius C. Burrows, M. C., Board of Visitors.
5. Music: U. S. Military Academy band.
6. Delivery of Diplomas: Hon. Redfield Proctor, Secretary of War.
7. Remarks: Rev. Frank O'Brien, Board of Visitors.
8. Music: U. S. Military Academy band.
9. Benediction.

The Board directed that the address of Mr. Burrows to the graduating class should be printed as part of the report. Upon being introduced by Colonel Wilson, Mr. Burrows said:

ADDRESS OF HON. JULIUS C. BURROWS.

Gentlemen of the graduating class of '91: Knowing and appreciating how impatient you are to be released, I shall not long restrain you from the full fruition of your desires. After four years of patient application you have successfully completed the prescribed course of instruction at this National Military Academy, and you are soon to be assigned to duty with the Army of the United States. Thus far the Government has served you; you must now serve the Government.

If you have availed yourselves of the advantages which this institution has afforded for scholastic and soldierly training, you are amply equipped for the service upon which you are about to enter. At this juncture in your career, in this supreme moment of your life, there is a single thought uppermost in my own mind, which I would be glad to so impress upon you as to secure for it a permanent lodgment in your hearts in the hope and belief that it will serve to dignify and exalt the profession you have espoused, and to which you have dedicated your lives.

You will go to your posts of duty in a time of profound peace. The nation is at peace with all the world. There is neither "war nor rumors of war." All causes of internal dissension are forever removed, and fratricidal war will never again distract or divide this happy, reunited people. It is not improbable, therefore, that you may never be called upon to put the knowledge you have here acquired to the practical and crucial test of actual war.

With this prospect before you, the thought I would impress upon you is this: That faithful and efficient service in the Army of the United States in times of peace is as important to the Government and as honorable to the soldier as when rendered in the midst of actual hostilities.

The accomplished Superintendent of this Academy, together with its efficient corps of instructors in military science; you who go to your commands to impart to others something of the military skill and soldierly training which you have here acquired; the lone sentinel who walks his midnight beat, under the silent stars, with no foe to answer his stern challenge; all these render a service to the country of as inestimable value as those who lead armies and fight battles. It has been said that "peace hath her victories no less renowned than war." The triumphs of armies

are not recorded alone on battlefields. Armies win victories in peace as well as in war. The silent majesty of a nation's military and naval power in peace, fully disciplined and equipped, is as potent for the public weal as when marshaled on hostile fields. A nation prepared for war holds the bond of every other nation to keep the peace.

I would have you understand, therefore, that though the Government may never require your services in actual war, yet in making choice of the profession of arms you have identified yourself with an important, and I may say an indispensable, function of civil government. A military power in peace is as essential to government as the legislative, executive, or judicial power. A government without force is as impossible as a government without law. There is no nation on the face of the globe, democratic or despotic, that has not at ready command armies and navies to enforce its sovereign decrees. The presence of such a power is the heart-beat of a nation's life. Disband the armies, dismantle the navies of the nations of the world and governments would perish and civilization decay. If, therefore, in years to come you may sometimes weary of the endless monotony of camp life in peace, these reflections may inspire you to renewed zeal and fresh courage.

But you may say, "Is there nothing before me but this endless routine of camp life and duty? Are there no campaigns to be prosecuted or battles fought except imaginary ones? Are sentinels to be posted, pickets thrown out, skirmishers deployed, lines of battle formed, charges made, sieges prosecuted, pontoons laid, cities bombarded, and fortresses stormed only in mimicry of war?" Possibly that is all, but if all, it is sufficient to fill the measure of a soldier's laudable ambition. It is the disciplined army in peace that makes the invincible army in war.

The purpose of the Government in founding this institution was to give to those who entered it not only an opportunity to acquire such knowledge of military science as might enable them to serve the Government in war, but in peace to impart to the recruited army of the United States something of that discipline and soldierly spirit without which armies are mobs and battles butcheries. Congress has testified its appreciation of the disciplinary service by placing the additional incentive of personal advancement, as a reward for superior attainment, in authorizing the President of the United States to prescribe a system of examination of all officers in the Army below the rank of major to determine their fitness for promotion. If the officer fails in such examination and is reported unfit for promotion, the officer next below him in rank (if passing) shall receive the promotion. The officer failing, if for physical reasons, shall be retired. If for other reasons, he shall be suspended for promotion for the period of one year, at the expiration of which time he shall be re-examined, and if upon such re-examination he shall again be found unfit for promotion, he shall be discharged from the Army of the United States. Heretofore promotions have had to wait on death or resignation; hereafter they will come as a reward for superior attainments. Every consideration therefore of public duty and personal pride conspire to stimulate you to the highest possibilities of your profession.

Go, therefore, gentlemen, to your posts of duty. Take with you the strict discipline, the high sense of honor, the soldierly bearing, and the love of country which this institution has sought to inculcate, and not only treasure them as the priceless jewels of a soldier's life, but by precept and example inspire their acquisition in others. And above all else venerate the flag of your country as you do the altar of your religion. It is a memory and a hope. Morning and evening salute it, and as the rising and setting sun lights up its glories, with uncovered head swear renewed and eternal allegiance to this symbol of a nation's sovereignty. Senator Manderson, as I rose to address you, related an incident which once came under his observation. Seated in a great assemblage, the band struck up "God save the Queen," and instantly every Englishman present sprang to his feet and reverently stood during the rendition of this national invocation. Let us imitate that spirit, and not only salute the flag, but

when the music of our national airs falls upon the ear, let every soldier and citizen rise in patriotic recognition of its inspiring strains.

Go then to your posts of duty, and, though peace smiles continually upon the land, serve the country with the same fidelity as if involved in war. And though your names may never be sounded in the trumpet of fame, chiseled in marble, or cut in brass, yet you will have the consolation of knowing that you have desolated no homes, made no graves, and broken no human hearts; and your enduring monument will be blossoming fields, happy homes, and the plaudits of a free people reposing in security and peace behind the bulwark of a disciplined, patriotic, and invincible Army.

ADDRESS BY HON. REDFIELD PROCTOR, SECRETARY OF WAR.

Upon the conclusion of Mr. Burrows's address and the performance of an appropriate air by the Military Academy Band each member of the graduating class was called to the platform by the Superintendent and handed his diploma by the Secretary of War. The diplomas having been distributed, the Secretary addressed the assembly as follows :

Colonel Wilson, cadets, ladies, and gentlemen: I am sure one thought occurs to all of us to-day. We miss a familiar face and voice from this platform, the face and voice of one we all respected, admired, and loved. It rarely falls to the lot of any man to fill so large a space in the minds and hearts of his countrymen as did General Sherman. And I could not by any elaborate speech say anything better to you young soldiers than simply to commend the life of this great soldier and citizen as one in every way worthy of study and imitation. His career as a soldier is too familiar to you all for any review, but in our admiration of his great soldierly qualities we may lose sight of another side of his character. It may fairly be said of him that he was a great statesman and politician, in the best sense of the term, and in support of this statement I need only refer to the masterly manner in which he handled the many questions which came before him, more or less relating to statecraft and politics, and often requiring immediate action.

The soldier is freed by the character and conditions of the service from most of the ordinary political obligations of free men. But you are nevertheless citizens and sovereigns of a free country as well as soldiers. You are not free. No man is free from the duty of studying and understanding the political system under which he lives. Every man may have fixed political ideas and principles and be ready to act upon them when occasion demands. He is as much bound to understand and do his duty in political affairs as he is to deal honestly by his neighbor or perform any of the obligations of good citizenship.

General Sherman's political platform was short, a model in that respect, and I know it will commend itself to you and trust it will henceforth to all within our borders. He stated these principles many times, notably when he left the school in Louisiana, in January, 1861, in a letter to Governor Moore, of that State, in which he said: "On no earthly account will I do any act or think any thought hostile to or in defiance of the whole Government of the United States. I prefer to maintain my allegiance to the Constitution as long as a fragment of it survives." He set another good example to the politicians, for he always lived up to his platform. He kept in mind the safe general rule that the National Government has, and must have, all the powers necessary for its preservation, the maintenance of its authority, and the honor of its flag. I know that this emblem, so faithfully and ably guarded by him, is safe in your hands.

ADDRESS OF REV. FRANK A. O'BRIEN.

The Rev. Frank A. O'Brien followed Secretary Proctor, making a short address to the graduating class, concluding his remarks by saying:

We are standing and will stand before the world as we make ourselves with the use of God's gifts. It is enough to have done our duty whether it brings cross or crown. Be bold and confident. Work for the cause of truth, of justice, and for that great gift of freedom. We need our best men in the thickest of the fight. Honesty, intelligence, and independence in public life will be the glory of the longest day. Intrigue, deceit, and treachery may rule the shorter hours; but its sundown is darkness. Let your motto be the watchword of our country—"In God we trust." In the words of Mother Church let me conclude by saying: "Gallant Knight, receive your honors. Go forth to battle. May you always know the just cause, have courage to espouse it, and strength of arm and tongue and pen to ever lead it to victory."

MEMBERS OF THE CLASS OF 1891.

Following is the list of the graduating class:

Order of general merit.	Name.	Where born.	Appointed from.	Order of general merit.	Name.	Where born.	Appointed from.
*1	Crosby, Spencer.....	Md.....	At large.	34	Hirsch, Harry J.....	Pa.....	Pa.
*2	Sewell, John S.....	Tenn.....	Ky.	35	Hine, Charles De L.....	Va.....	Va.
*3	Echols, Charles P.....	Ala.....	Ala.	36	Frazier, Joseph.....	Mo.....	Mo.
*4	McIndoe, James F.....	Md.....	Md.	37	Hamilton, Robert L.....	W. Va.....	W. Va.
*5	Morrow, Jay J.....	W. Va.....	Pa.	38	Upton, LaRoy S.....	Mich.....	Mich.
6	Horney, Odus C.....	Ill.....	Ohio.	39	Smith, Harry A.....	Kans.....	Kans.
7	Lyon, LeRoy S.....	Va.....	Va.	40	Clark, Hollis C.....	Ill.....	N. Y.
8	Hero, Andrew, jr.....	La.....	La.	41	Saffarans, George C.....	Tenn.....	Ky.
9	Horn, Tiemann N.....	N. Y.....	N. J.	42	Pierce, Palmer E.....	Ill.....	Iowa.
10	Anderson, Edward D.....	Tenn.....	Tenn.	43	Wahl, Lutz.....	Wis.....	Wis.
11	Murphy, Truman O.....	Ohio.....	Ohio.	44	Jackson, William P.....	Mo.....	Mo.
12	White, George P.....	Minn.....	Iowa.	45	Donworth, Albert B.....	Me.....	Me.
13	Fuller, Lawson M.....	Wis.....	Wis.	46	Ogden, Charles C.....	Ind.....	Ill.
14	Scherer, Louis C.....	Minn.....	Minn.	47	Voorhies, Gordon.....	Ky.....	Ky.
15	Furlong, John W.....	N. J.....	Pa.	48	Hines, John L.....	W. Va.....	W. Va.
16	Livermore, Richard L.....	N. Y.....	N. J.	49	Smith, Guy H. B.....	Mich.....	Md.
17	Corcoran, Thomas M.....	Mass.....	Mass.	50	Whitman, Walter M.....	N. Y.....	N. Y.
18	Fleming, Robert J.....	Ireland.....	Mich.	51	Crowley, Matthias.....	Ireland.....	N. Y.
19	Winans, Edwin B., jr.....	Mich.....	Mich.	52	g Lafitte, Jacques de L.....	La.....	La.
20	Johnston, William T.....	Pa.....	Mo.	53	Bradley, John J.....	Ill.....	Ill.
21	Osborne, William H.....	Pa.....	Pa.	54	Settle, Douglas.....	N. C.....	N. C.
22	Schoeffel, Francis H.....	N. Y.....	N. Y.	55	Switzer, John S.....	Pa.....	Pa.
23	Howard, Harold P.....	Minn.....	Minn.	56	Williams, Herbert O.....	Miss.....	Miss.
24	Bertsch, William H.....	Mich.....	Mich.	57	Guyser, George D.....	N. Y.....	N. Y.
25	Bush, Ross L.....	Ill.....	Ill.	58	Grote, William F.....	Ill.....	Ill.
26	Donovan, Joseph L.....	Ky.....	Ky.	59	Chapman, William H. H.....	Wis.....	Wis.
27	Lindsley, Elmer.....	N. Y.....	N. Y.	60	Roynan, Herbert N.....	Conn.....	Conn.
28	Bennet, John B.....	N. J.....	Colo.	61	Jenks, Isaac C.....	Mass.....	Mass.
29	Crabbs, Joseph T.....	Ind.....	Ill.	62	Drew, Alfred W.....	Tex.....	Tex.
30	Glasgow, William J.....	Mo.....	Mo.	63	Ely, Hanson E.....	Iowa.....	Iowa.
31	Armstrong, Frank S.....	Ind.....	Ind.	64	Sorley, Lewis S.....	England.....	Tex.
32	Jarvis, Melville S.....	W. Va.....	W. Va.	65	Cordray, David P.....	Ohio.....	Ohio.
33	Heavey, John W.....	Ill.....	Ill.				

APPOINTMENT AND ADMISSION OF CADETS.

The following is a copy of the circular issued by the War Department, furnishing all necessary information relative to the appointment and admission of cadets to the U. S. Military Academy.

APPOINTMENTS.

How made.—Each Congressional district and Territory—also the District of Columbia—is entitled to have one cadet at the Academy. Ten are also appointed *at large*. The appointments (except those *at large*) are made by the Secretary of War at the request of the Representative or Delegate in Congress from the district or Territory; and the person appointed must be an actual resident of the district or Territory from which the appointment is made. The appointments *at large* are especially conferred by the President of the United States.

Manner of making applications.—Applications can be made at any time, by letter to the Secretary of War, to have the name of the applicant placed upon the register, that it may be furnished to the proper Representative or Delegate when a vacancy occurs. The application must exhibit the full name, date of birth, and permanent abode of the applicant, with the number of the Congressional district in which his residence is situated.

Date of appointments.—Appointments are required by law to be made one year in advance of the date of admission, except in cases where, by reason of death or other cause, a vacancy occurs which can not be provided for by such appointment in advance. These vacancies are filled in time for the next annual examination.

Alternates.—The Representative or Delegate in Congress may nominate a legally qualified second candidate, to be designated the *alternate*. The alternate will receive from the War Department a letter of appointment, and will be examined *with the regular appointee*, and if fully qualified will be admitted to the Academy in the event of the failure of the principal to pass the prescribed preliminary examinations. The alternate will not be allowed to defer his reporting at West Point until the result of the examination of the regular appointee is known, but must report at the time designated in his letter of appointment. The alternate, like the nominee, should be designated as nearly one year in advance of date of admission as possible.

ADMISSION OF CADETS.

A candidate, upon receiving his conditional appointment, is ordered to report at West Point to the Superintendent of the Military Academy in time to appear before the Academic Board for examination at its meeting early in June, unless there be good reasons for designating another time.

The candidate, soon after his arrival at West Point, is subjected to a rigid physical examination by a board of experienced surgeons of the Army. If he passes successfully this examination, he is then examined by the Academic Board. These examinations are made with as little delay as practicable after the candidate reports to the Superintendent.

The candidate who passes successfully these examinations is admitted at once to the Academy without returning to his home. Immediately after his admission, and before receiving his warrant of appointment, he is required to sign an engagement for service in the following form, in the presence of the Superintendent or of some officer deputed by him:

I, _____, of the State (or Territory) of _____, aged _____ years _____ months, do hereby engage (with the consent of my parent or guardian) that, from the date of my admission as a cadet of the United States Military Academy, I will serve in the Army of the United States for eight years, unless sooner discharged by competent authority.

In the presence of—

The candidate is then required to take and subscribe an oath or affirmation in the following form:

“I, _____, do solemnly swear that I will support the Constitution of the United States, and bear true allegiance to the National Government; that I will

maintain and defend the sovereignty of the United States, paramount to any and all allegiance, sovereignty, or fealty I may owe to any State or country whatsoever; and that I will at all times obey the legal orders of my superior officers, and the rules and articles governing the armies of the United States.

Sworn and subscribed, at _____, this _____ day of _____, eighteen hundred and _____, before me.

Qualifications.—The age for the admission of cadets to the Academy is between seventeen and twenty-two years. Candidates must be unmarried, at least five feet in height, free from any infectious or immoral disorder, and, generally, from any deformity, disease, or infirmity which may render them unfit for military service. They must be well versed in reading, in writing, including orthography, in arithmetic, and have a knowledge of the elements of English grammar, of descriptive geography (particularly of our own country), and of the history of the United States.

CHARACTER OF EXAMINATIONS.*

* It is suggested to all candidates for admission to the Military Academy that, before leaving their place of residence for West Point, they should cause themselves to be thoroughly examined by a competent physician, and by a teacher or instructor in good standing. By such an examination any *serious* physical disqualification or deficiency in mental preparation would be revealed, and the candidate probably spared the expense and trouble of a useless journey and the mortification of rejection.

It should be understood that the informal examination herein recommended is solely for the convenience and benefit of the candidate himself, and can in no manner affect the decision of the Academic and Medical Examining Boards at West Point.

PHYSICAL EXAMINATION.

Every candidate is subject to a rigid physical examination, and if there is found to exist in him any of the following causes of disqualification to such a degree as would immediately, or at no very distant period, impair his efficiency, he is rejected:

1. Feeble constitution and muscular tenuity; unsound health from whatever cause; indications of former disease; glandular swellings or other symptoms of scrofula.
2. Chronic cutaneous affections, especially of the scalp.
3. Severe injuries of the bones of the head; convulsions.
4. Impaired vision, from whatever cause; inflammatory affections of the eyelids; immobility or irregularity of the iris; fistula lachrymalis, etc., etc.
5. Deafness; copious discharge from the ears.
6. Loss of many teeth, or the teeth generally unsound.
7. Impediment of speech.
8. Want of due capacity of the chest, and any other indication of a liability to a pulmonic disease.
9. Impaired or inadequate efficiency of one or both of the superior extremities on account of fractures, especially of the clavicle, contraction of a joint, extenuation, deformity, &c.
10. An unusual excurvature or incurvature of the spine.
11. Hernia.
12. A varicose state of the veins of the scrotum or spermatic cord (when large), sarcocele, hydrocele, hemorrhoids, fistulas.
13. Impaired, or inadequate efficiency of one or both of the inferior extremities on account of varicose veins, fractures, malformation (flat feet, etc.), lameness, contraction, unequal length, bunions, overlying or supernumerary toes, etc., etc.
14. Ulcers, or unsound cicatrices of ulcers likely to break out afresh.

* NOTE.—There being no provision whatever for the payment of the traveling expenses of either accepted or rejected candidates for admission, no candidate should fail to provide himself in advance with the means of returning to his home, in case of his rejection before either of the examining boards, as he may otherwise be put to considerable trouble, inconvenience, and even suffering on account of his destitute condition. If admitted, the money brought by him to meet such a contingency can be deposited with the treasurer on account of his equipment as a cadet, or returned to his friends.

ACADEMICAL EXAMINATION.

Reading.—In reading, candidates must be able to read understandingly, with proper accent and emphasis.

Writing and Orthography.—In writing and orthography they must be able, from dictation, to write sentences from standard pieces of English literature, both prose and poetry, sufficient in number to test their qualifications, both in handwriting and orthography.

Arithmetic.—In arithmetic they must be able—

(1) To explain, accurately and clearly, its objects and the manner of writing and reading numbers—entire, fractional, compound, or denominate;

(2) To perform, with facility and accuracy, the various operations of addition, subtraction, multiplication, and division of whole numbers, abstract and compound or denominate, giving the rule for each operation, with its reasons, and also for the different methods of proving the accuracy of the work;

(3) To explain the meaning of reduction—its different kinds, its application to denominate numbers in reducing them from a higher to a lower denomination and the reverse, and to equivalent decimals; to give the rule for each case, with its reasons, and to apply readily these rules to practical examples of each kind;

(4) To explain the nature of prime numbers, and factors of a number—of a common divisor of two or more numbers, particularly of their greatest common divisor—with its use, and to give the rule, with its reasons, for obtaining it; also the meaning of a common multiple of several numbers, particularly of their least common multiple and its use, and to give the rule, with its reasons, for obtaining it, and to apply each of these rules to examples;

(5) To explain the nature of fractions, common or vulgar, and decimal—to define the various kinds of fractions, with the distinguishing properties of each—to give all the rules for their reduction, particularly from mixed to improper and the reverse—from compound or complex to simple—to their lowest terms—to a common denominator—from common to decimal and the reverse; for their addition, subtraction, multiplication, and division, with the reasons for each change of rule, and to apply each rule to examples;

(6) To define the terms ratio and proportion—to give the properties of proportion and the rules, and their reasons, for stating and solving questions in both simple and compound proportion, or single and double rule of three, and to apply these rules to examples;

(7) The candidates must not only know the principles and rules referred to above, but they are required to possess such a thorough understanding of all the fundamental operations of arithmetic as will enable them to combine the various principles in the solution of any complex problem which can be solved by the methods of arithmetic. In other words, they must possess such a complete knowledge of arithmetic as will enable them to take up at once the higher branches of mathematics without further study of arithmetic;

(8) It is to be understood that the examination in these branches may be either written or oral, or partly written and partly oral—that the definitions and rules must be given fully and accurately, and that the work of all examples, whether upon the blackboard, slate, or paper, must be written plainly and in full, and in such a manner as to show clearly the mode of solution.

Grammar.—In English grammar candidates must be able—

(1) To define the parts of speech and give their classes and properties; to give inflections, including declension, conjugation, and comparison; to give the corresponding masculine and feminine gender nouns; to give and apply the ordinary rules of syntax.

(2) To parse fully and correctly any ordinary sentence, omitting rules, declensions, comparisons, and principal parts, but giving the subject of each verb, the governing word of each objective case, the word for which each pronoun stands or to which it

refers, the words between which each preposition shows the relation, precisely what each conjunction connects, what each adjective and adverb qualifies or limits, the construction of each infinitive, and, generally, showing a good knowledge of the function of each word in the sentence. Omissions will be taken to indicate ignorance.

(3) To correct in sentences or extracts any ordinary grammatical errors, such as are mentioned and explained in ordinary grammars.

It is not required that any particular grammarian or text-book shall be followed; but rules, definitions, parsing, and corrections must be in accordance with good usage and common sense. The examination may be written or oral, or both written and oral.

Geography.—Candidates will be required to pass a satisfactory examination, written or oral, or both, in geography, particularly of our own country. To give a candidate a clear idea of what is required, the following synopsis is added to show the character and extent of the examination. Questions are likely to be asked involving knowledge of—

(1) Definitions of the geographical circles, of latitude and longitude, of zones, and of all the natural divisions of the earth's surface, as islands, seas, capes, etc.

(2) The continental areas and grand divisions of the water of the earth's surface.

(3) The grand divisions of the land—the large bodies of water which in part or wholly surround them:

Their principal mountains, location, direction, and extent; the capes, from what parts they project and into what waters.

Their principal peninsulas, location, and by what waters are they embraced.

The parts connected by an isthmus, if any.

Their principal islands, location, and surrounding waters.

The seas, gulfs, and bays, the coasts they indent, and the waters to which they are subordinate.

The straits, the lands they separate and the waters they connect.

Their principal rivers, their sources, directions of flow, and the waters into which they empty.

Their principal lakes, location, and extent.

(4) The political divisions of the grand divisions:

Their names, locations, boundaries, and capitals; general questions of the same character as indicated in the second section made applicable to each of the countries of each of the grand divisions.

(5) The United States.

The candidate should be thoroughly informed as to its general features, configuration, location, and boundaries (both with respect to neighboring countries, and latitude and longitude); its adjacent oceans, seas, bays, gulfs, sounds, straits, and islands; its mountain ranges, their location and extent; the sources, directions, and terminations of the important rivers and their principal tributaries; the lakes; and in short, every geographical feature of the country as indicated above. The location and termination of important railroad lines and other means of communication from one part of the country to another should not be omitted.

The States and Territories are to be accurately located with respect to each other by their boundaries, and as to their order along the Atlantic coast, the Gulf of Mexico, the Pacific coast, the Northern frontier, the Mexican frontier, and the Mississippi, Missouri, and Ohio Rivers.

The boundary and other large rivers of each State as well as all other prominent geographical features should be known.

The names and locations of their capitals, and other important cities and towns are likewise to be known.

In short, the knowledge should be so complete that a clear mental picture of the whole or any part of the United States is impressed on the mind of the candidate. More weight is attached to a knowledge of the geography of the United States than that of all other countries combined.

History.—The candidate should make himself familiar with so much of the History of the United States as is contained in the ordinary school histories. The examination may be written or oral, or partly written and partly oral, and will usually consist of a series of questions similar to the following :

I. Name the earliest European settlements within the present limits of the United States—when, where, and by whom made? When did the settlements made by other nations than the English come under the Dominion of Great Britain, and of the United States?

II. What was the difference between the royal, the chartered, and the proprietary colonies? How many colonies were there originally in Massachusetts and Connecticut? When were they united? How many in Pennsylvania? When were they separated?

III. In what wars were the colonies engaged before the Revolution? What were the principal events and results of those of King William, Queen Anne, King George, and the French and Indians?

IV. What were the remote and the immediate causes of the American Revolution? Explain the navigation act, the stamp act, writs of assistance. When did the war of the revolution properly begin? When, where, and how did it end? Give the particulars of Arnold's treason. Who were the most prominent generals in this war? Name the most important battles, and their results.

V. The Constitution of the United States—why and when was it formed? When was it adopted?

VI. Give the names of the Presidents of the United States in their order. Give the leading events of the administration of each one; for example, that of—

WASHINGTON.—Indian war; trouble with France; Jay's treaty; the whisky rebellion, etc.

JEFFERSON.—War with Tripoli; purchase of Louisiana; the embargo, etc.

MADISON.—War of 1812; its causes, the principal battles on land and sea, peculiarity of its last battle, when ended, etc.

MONROE.—Indian war; cession of Florida; Missouri compromise, etc.

JACKSON.—Black Hawk and Seminole wars; the United States Bank; nullification, etc.

POLK.—The Mexican war; its causes, principal battles, result of it, etc.

PIERCE.—Repeal of Missouri compromise; troubles in Kansas, etc.

BUCHANAN.—Civil war; how begun, etc.

LINCOLN.—War of secession; its causes; its results, social and political; explain doctrine of State sovereignty; alienation between Northern and Southern States; doctrine of secession; give an account of principal battles.

JOHNSON.—Fourteenth amendment; tenure-of-office bill; Johnson's impeachment.

GRANT.—Fifteenth amendment; Alabama claims and treaty of Washington; electoral commission.

ACADEMIC DUTIES.

The academic duties and exercises commence on the 1st of September and continue until the 1st of June. Examinations of the several classes are held in January and June, and, at the former, such of the new cadets as are found proficient in studies and have been correct in conduct are given the particular standing in their class to which their merits entitle them. After each examination cadets found deficient in conduct or studies are discharged from the Academy, unless the Academic Board for special reasons in each case should otherwise recommend. Similar examinations are held every January and June during the 4 years comprising the course of studies.

These examinations are very thorough and require from the cadet a close and persevering attention to study, without evasion or slighting of any part of the course, as no relaxations of any kind can be made by the examiners.

Military instruction.—From the termination of the examination in June to the end of August the cadets live in camp, engaged only in military duties and exercises and receiving practical military instruction.

Except in extreme cases, cadets are allowed but one leave of absence during the 4 years' course; as a rule the leave is granted at the end of the first 2 years' course of study.

PAY OF CADETS.

The pay of a cadet is \$540 per year, to commence with his admission to the Academy, and is sufficient, with proper economy, for his support. No cadet is permitted to receive money or any other supplies from his parents or from any person whomsoever without the sanction of the Superintendent.

Cadets are required to wear the prescribed uniform. All articles of their clothing are of a uniform pattern and are sold to cadets at West Point at regulated prices.

EXPENSES OF CADETS PRIOR TO ADMISSION.

The expenses of a candidate for board, washing, lights, etc., after he has reported and prior to admission will be about \$10. Immediately after being admitted to the institution he must be provided with an outfit of uniform, the cost of which will be about \$90, making a total sum of \$100, which must be deposited with the treasurer of the Academy before the candidate is admitted. It is best for a candidate to take with him no more money than will defray his traveling expenses and for the parent or guardian to send to "The Treasurer, U. S. Military Academy," the required deposit of \$100. Any deviation from the rule as to the amount or manner of making the deposit must be explained in writing by the parent or guardian of the candidate to the Superintendent of the Academy.

ASSIGNMENT TO CORPS AFTER GRADUATION.

When any cadet of the United States Military Academy has gone through all its classes and received a regular diploma from the academic staff, he may be promoted and commissioned as a second lieutenant in any arm or corps of the Army in which there may be a vacancy and the duties of which he may have been judged competent to perform; and in case there shall not at the time be a vacancy in such arm or corps, he may, at the discretion of the President, be promoted and commissioned in it as an additional second lieutenant, with the usual pay and allowances of a second lieutenant, until a vacancy shall happen.

GENERAL QUALIFICATIONS.

A sound body and constitution, suitable preparation, good natural capacity, and aptitude for study, industrious habits, perseverance, an obedient and orderly disposition, and a correct moral deportment are such essential qualifications that candidates knowingly deficient in any of these respects should not, as many do, subject themselves and their friends to the chances of future mortification and disappointment by accepting appointments at the Academy and entering upon a career which they can not successfully pursue.

Course of study and books used.

[Books marked thus * are for reference.]

FIRST YEAR—FOURTH CLASS.

Department.	Course of study, text-books, and books of reference.
Mathematics	Davies's Elements of Algebra, Davies's Legendre's Geometry, Ludlow's Elements of Trigonometry, Davies's Surveying, Church's Analytical Geometry.
Modern languages.....	Keetels's Analytical and Practical French Grammar, Keetels's Analytical French Reader, *Spiers and Surene's Dictionary, Whitney's Essentials of English Grammar, Hart's Manual of Rhetoric and Composition, Abbott and Seeley's English Lessons for English People, Abbott's How to Write Clearly, *Webster's Dictionary.
History, geography, and ethics....	Lectures in ethics and in universal history.
Tactics of artillery and infantry...	Practical instruction in the schools of the soldier, company, and battalion, *Blunt's Rifle and Carbine Firing, practical instruction in artillery.
Use of the sword, etc.....	Instruction in fencing and bayonet exercise and military gymnastics.

SECOND YEAR.—THIRD CLASS.

Mathematics	Church's Analytical Geometry. Church's Descriptive Geometry, with its application to Spherical Projections. Bass' Introduction to the Differential Calculus. Church's Calculus. Church's Shades, Shadows, and Perspective. Chauvenet's Treatise on the Method of Least Squares.
Modern languages.....	Keetels' Analytical and Practical French Grammar. Borel's Grammaire Française. Bôcher's College Series of French Plays. Roemer's Cours de Lecture et de Traduction, Vols. I and II. *Spiers' and Surene's Dictionary.
Drawing.....	Topography and plotting of Surveys with lead-pencil, pen and ink, and colors; construction of the various problems in Descriptive Geometry, Shades and Shadows, and Linear perspective and Isometric projections; practical surveying in the field. *Reed's Topographical Drawing and Sketching, including Photography applied to Surveying.
Tactics of artillery, infantry, and cavalry.	Practical Instruction in the Schools of the Soldier, Company, and Battalion. *Blunt's Rifle and Carbine Firing. Practical Instruction in Artillery and Cavalry.

THIRD YEAR.—SECOND CLASS.

Natural and experimental philosophy.	Michie's Mechanics, 3d Edition. Bartlett's Astronomy. Young's General Astronomy. Michie's Elements of Wave-Motion relating to Sound and Light.
Chemistry, mineralogy, and geology.	Bloxam's Chemistry, 6th Edition. Tillman's Elementary Lessons in Heat (revised edition). Tillman's Essential Principles of Chemistry. Brown's Electric Physiology. Thompson's Elementary Lessons in Electricity and Magnetism. Dana's Manual of Mineralogy and Petrography, 5th edition. Le Conte's Elements of Geology.
Drawing	Free Hand Drawing and Landscape in black and white. Constructive and Architectural Drawing in ink and colors. *Reed's Topographical Drawing and Sketching.

Course of study and books used—Continued.

[Books marked thus * are for reference.]

THIRD YEAR.—SECOND CLASS—Continued.

Department.	Course of study, text-books, and books of reference.
Tactics of artillery, infantry, and cavalry.	United States Army Artillery Tactics. Tidball's Manual of Heavy Artillery Service, U. S. A. United States Army Cavalry Tactics. Upton's United States Army Infantry Tactics. Practical Instruction in the Schools of the Soldier, Company, and Battalion. Practical Instruction in Artillery and Cavalry.
Practical military engineering.....	Practical and Theoretical Instruction in Military Signaling.

FOURTH YEAR.—FIRST CLASS.

Civil and military engineering and science of war.	Wheeler's Civil Engineering. Wheeler's Field Fortifications. Mercur's Mahan's Permanent Fortification, Ed. of 1887. Wheeler's Military Engineering (Siege Operations, and Military Mining). Mercur's Elements of the Art of War. Mahan's Stereotomy. *Royal Engineers, Aide-Mémoire, Parts I and II.
Modern languages	Knapp's Spanish Grammar; Knapp's Spanish Readings. *Seoane's Neuman and Barretti's Dictionary.
Law.....	Woolsey's International Law. Cooley's General Principles of Constitutional Law in the United States. Winthrop's Abridgment of Military Law. General Orders No. 100, A. G. O., 1863.
History, geography, and ethics. ...	Swinton's Outlines of the World's History. Labberton's New Historical Atlas and General History.
Practical military engineering.....	Practical Instruction in the construction of Ponton and Spar Bridges; in the preparation of Siege Materials; and in laying out field and siege works. Practical Instruction in Astronomy, in Surveying, in Military Reconnaissances, in Field Telegraphy; and Night Signalling. *Ernst's Manual of Practical Military Engineering.
Tactics of artillery, infantry, and cavalry.	Practical Instruction in the Schools of the Soldier, Company, and Battalion. Practical Instruction in Artillery and Cavalry.
Ordnance and gunnery.....	Metcalf's Ordnance and Gunnery. Practical Pyrotechnics. Practical Ballistics.

PRELIMINARY EXAMINATIONS.

The following letter was received from the adjutant of the Military Academy, forwarding a list of questions used at the June examinations:

HEADQUARTERS U. S. MILITARY ACADEMY,
West Point, N. Y., September 15, 1891.

SIR: In accordance with your request of recent date, and with the authority of the Superintendent, I have the honor to forward herewith copies of the lists of questions used at the examination of candidates for admission to the Military Academy in June last.

The lists comprise questions in history of the United States; in the fundamental principles of arithmetic, and especially their application to practical problems; in the rules and principles of English grammar; in geography, particularly that of the United States; in orthography, which also indicates the candidates' ability in writing.

The examination in reading is conducted orally before the entire board, and consists in testing the candidates' ability to read correctly a paragraph or more from some standard school reader, such as "Sergeant's Standard Reader."

A perusal of the lists will show that the examinations, though not very advanced, are thorough, and require from the candidates an intimate acquaintance with the branches indicated.

All lists of examination questions are submitted to the academic board for its examination and approval before being used in the examination of candidates.

Very respectfully,

J. M. CARSON, JR.,

Second Lieutenant, Fifth Cavalry, Adjutant.

Maj. JOHN M. CARSON,

Secretary of Board of Visitors U. S. Military Academy,

Washington, D. C.

EXAMINATION IN ENGLISH GRAMMAR.

Time allotted, 2½ hours.

DIVISION I.

[N. B.—Write the answers below, numbering them to correspond with the questions.]

1. Name all the *parts of speech*. Which of them are *declined*? Which of them is *conjugated*? Which of them are *not inflected*?

2. What is a *noun*? Name the *kinds of nouns*. How is the *plural* of nouns regularly formed? Write the plural of each of the following nouns: *scarf, wharf, hoof, beauty, mouse, potato, mussulman, story, attorney, brother-in-law, spoonful, Miss Smith, ox, fox.*

3. The three principal parts of the verb *see* are *see, saw, seen*; give the principal parts of the verbs *bid, break, fly, fall, loose, ride, mean, wear, win, shrink, set, steal, lay, freeze, sing.*

4. What is an *adverb*? What is a *conjunction*? What is a *preposition*? What is a *personal pronoun*? Give an example of each properly used in a sentence.

DIVISION II.

N. B.—Write quite across both pages if necessary. Intelligible abbreviations are allowed. In parsing give no rules, declensions, comparisons, or principal parts; but in other respects parse fully, being careful to give the subject of each verb, the governing word of each objective case, and to state precisely what each conjunction connects, between what words each preposition shows the relation, and to what each pronoun refers. Important omissions will be taken to indicate ignorance.

Parse the words in *italics* in the following sentence: *This nursery legend is the child's version of those superstitions which would have strangled in their cradles the young sciences now adolescent and able to take care of themselves, and which, having been driven from their nursery, are watching with hostile aspect the rapid growth of the comparatively new science of man.*

DIVISION III.

Correct all the errors that occur in the following sentences:

1. Those sort of books were a valuable present.
2. His wisdom, and not his money, produce esteem.
3. Each have their own faults.
4. Who doubts but what two and two are four?
5. He has not, I do not suppose, laid by much.
6. This result, of all others, is most to be dreaded.
7. I have and ever shall insist on the necessity of economy.
8. The number of inhabitants were not more than four millions.
9. Such expressions always sound harshly.
10. To this cause, no doubt, is due most of the failures.
11. I gave it to a man whom I thought was the proprietor.
12. Who do you take me to be?
13. One after another arose and expressed their approval.

14. The oldest of the two is about as tall as me.
15. I found it harder than I thought it would have been.
16. He has formerly been a resident of this town.
17. If you would take the trouble to look, you will see it.
18. If I was him, I would be ashamed to go there again.
19. I dare say he is as old if not older than you.
20. I could do it easy enough if every one paid their share.
21. Was it him that argued that the earth was flat?
22. I don't know as the exact cost is known yet.
23. Is there any prospect of the council passing such a by-law.

EXAMINATION IN HISTORY.

Time allowed, 3 hours.

[Write your answer as legibly and concisely as possible without omitting material or important facts.]

1. When was the main land of North America discovered? By whom? Where?
2. What explorations or discoveries did each of the following persons make? Give the date in each case.
 - (a) Narvaez.
 - (b) Coronado.
 - (c) Marquette.
 - (d) La Salle.
3. Of the thirteen English Colonies which was the first and which the last settled?
4. Name three colonies that were colonized for religious reasons, and name the denomination by which each was colonized.
5. What was meant by charter government, and name two colonies that were at some period under this form of administration?
6. What was meant by "the three lower counties on the Delaware?" What name was given to the territory by its earliest white settlers?
7. What part was taken in Colonial history by each of the following named persons?
 - (a) Lord Delaware.
 - (b) Patrick Henry.
 - (c) John Endicott.
 - (d) Peter Stuyvesant.
8. Who made the first draft of the Declaration of Independence?
9. Name some important results of each of the following battles of the Revolutionary War:
 - (a) Long Island.
 - (b) Trenton.
 - (c) Brandywine.
10. How many States belonged to the Union when Washington was inaugurated? and name those which had not adopted the Constitution.
11. Give the limiting dates of the war of 1812, and name the cause of that war.
12. When was the city of Washington taken by the British, and what were the circumstances of its capture?
13. During whose administration did each of the following events occur?
 - (a) Louisiana purchase.
 - (b) Nullification act.
 - (c) Gadsden purchase.
14. When and how was the Missouri Compromise virtually repealed?
15. Give three prominent features of the Seminole or Florida War, 1835-'42.
16. What State first passed the Ordinance of Secession? When?
17. Where was the first bloodshed of the Civil War? How was it brought about?
18. Name and give the dates of three prominent events of McClellan's Peninsular Campaign of 1862.

19. Give the date and place of General Lee's surrender.
20. How and in what year was slavery constitutionally abolished in the United States?

EXAMINATION IN ARITHMETIC.

No. 1 [wt. 8]. The sum of two decimal fractions is $\frac{1}{6}$, and one is $\frac{1}{8}$ of the other; find the decimal fractions.

No. 2 [wt. 8]. A vessel contains 5 bu. 3 pk. 2qt. 1pt., how many quarts, beer measure, will it contain?

No. 3 [wt. 8]. Which is the greater, one pound avoirdupois or one pound troy? One ounce avoirdupois or one ounce troy? Show how much in each case.

No. 4 [wt. 11]. $\frac{1}{3}\frac{2}{7}$ is an *erroneous value* of a *required fraction* because its denominator, 39, is too great by $\frac{1}{7}$. Is $\frac{1}{3}\frac{2}{7}$ greater or less than the *true value* of the *required fraction* and how much?

No. 5 [wt. 11]. If 193 versts equal 205.9 kilometres, and 1,552.94 kilometres equal 964.9 miles, how many miles are equal to 100 versts?

No. 6 [wt. 12]. $7\frac{1}{2}$ dozen apples are sold for 6s. 2d., some are sold at the rate of 3 for $2\frac{1}{2}$ d., and the remainder at 8 for 6 $\frac{1}{2}$ d. How many are sold at each rate?

No. 7 [wt. 12]. Two numbers, one of which is 2,685, have for their greatest common divisor 537, and for their least common multiple 18,795; find the other number.

No. 8 [wt. 14]. £925 is so divided among A, B, C, and D, that B's portion is $\frac{1}{2}$ of A's, C's is $\frac{2}{3}$ of B's, and D's is half as much as B's and C's together. What does each receive?

No. 9 [wt. 16]. The grass of 20 acres grows continuously. 133 oxen can eat all of the grass in 13 days (that is the original grass and that which grows in 13 days). 28 oxen could eat 5 acres of the grass in 16 days (that is the original grass and that which grows in 16 days). How many oxen could eat 4 acres of the grass in 14 days (that is 4 acres of grass and that which grows on the 4 acres in 14 days)?

EXAMINATION IN GEOGRAPHY.

Time allowed 2 $\frac{1}{2}$ hours.

1. Name the five oceans of the globe in order of size.
2. Name the seas on the east coast of Asia between Bering Straits and the Straits of Malacca.
3. Name the four most westerly countries of Europe in order from north to south.
4. Upon what river is Vienna situated, what is the direction of its flow below the city, where does it empty?
5. Where is the Isle of Wight? Isle of Man? the Orkney Isles?
6. What two large rivers of Russia empty into the Caspian Sea?
7. Locate definitely the following places: Teheran, Calcutta, Shanghai, and Singapore.
8. Name the Barbary States and the government to which each belongs.
9. Locate definitely the following towns of Africa: Morocco, Tunis, Alexandria, and Mozambique.
10. Name the colonies of Australia. Which is the most eastern, southern, western?
11. Name all the South American countries which touch the Pacific. Give their capitals.
12. Which of the South American countries lie north of the Equator?
13. In what States of Mexico are the following towns: Jalapa, Matamoras, Acapulco, Mazatlan? if upon waters state what.
14. Name the two most southern republics of Central America with their capitals.
15. Name the great lakes on the northern border of the United States in order from east to west. What water ways connect these lakes?
16. What is the most southern point of the United States? Give its latitude.
17. What States touch the Great Lakes? Name them in order from the west to east.
18. Name the States touched by the Missouri River.

19. Name the States east of the Missouri that have neither lake, sea, nor gulf coast line.

20. Bound Virginia, Utah, Missouri, Oregon (mountain and river boundaries not sufficient, all adjacent States must be given).

21. Which is the smallest and which is the largest State in the Union? How do they compare in area?

22. State where the Merrimac River rises, the direction of flow, where does it empty, what town is at its mouth?

23. Locate definitely the following places: Hartford, Little Rock, Montgomery, Milwaukee, Los Angeles.

24. A north and south line through Savannah would pass through what States?

25. Name five towns or cities of the most importance that one would pass in going from Pittsburg, Pa., to Mobile, Ala., by water.

CADETS ADMITTED JUNE, 1891.

The following-named young men passed the preliminary examinations held in June and were admitted to the Academy:

No.	Name.	Where born.	Ap- pointed from—	No.	Name.	Where born.	Ap- pointed from—
1	Akester, Arnold	Ind	Ind	51	Kelly, William, jr.	Tex.	Tex.
2	Aldrich, Ward Priest	N. H.	N. H.	52	Knowlton, Joseph Lippin- cott.	Ill	Ill.
3	Allen, Boughton Theodore	N. Y.	N. Y.	53	Langdon, Russell Creamer	N. Y.	N. Y.
4	Ames, Thales Lucius	Wis.	Wis.	54	Letourneau, Oswald	Ill	Ill.
5	Arnold, Conway Hillyer, jr.	N. Y.	N. Y.	55	Mayo, Richard Claybrook	Va.	Va.
6	Augustin, Joseph Numa, jr.	La.	La.	56	McBroom, Walter Scott	Ind	Ind.
7	Beauchamp, Runey Neal	Ky.	Ky.	57	McDonald, Thomas Benton	Md	Md.
8	Bell, Ola Walter	Mich.	Mich.	58	McGrew, Milton Loomis	D. C.	N. J.
9	Bentley, Carle Edwin	Cal.	Ark.	59	McIntyre, Thomas Henry Ruger.	Ala.	Tenn.
10	Bigelow, Mortimer Osborne	Mich.	Mich.	60	Miles, Perry Lester	Ohio	Ohio.
11	Bolles, Frank Crandall	Ill	Mo.	61	Morrison, John, jr.	Iowa	Iowa.
12	Botts, Louis Elkin	Mo.	Mo.	62	Myer, George Henderson*	N. Y.	N. Y.
13	Briggs, Paul Robert	Mo.	Mo.	63	Newbaker, Edward Jay	Pa.	Pa.
14	Broatch, James Wallace	S. Dak.	Nebr.	64	Nissen, August Carl	Ohio	Ohio.
15	Brookes, Albert Sidney	Ark.	Ark.	65	Nuttman, Louis Meredith	N. J.	N. J.
16	Brown, Frank Reid	Miss.	N. C.	66	O'Harra, Aloysius Peter Jo- seph.	Pa.	Pa.
17	Bugge, Jens., jr.	Wis.	Minn.	67	O'Sullivan, Ernest Philip	N. C.	N. Y.
18	Burgess, Harry	Miss.	Mis.	68	Paine, Charles Herman	Vt	Md.
19	Butler, Clarence Metz	Ohio	Ohio.	69	Parker, James Southard	D. C.	Atl'rge
20	Cain, Cornelius Enoch	Ky.	Ky.	70	Payne, Brooke	Va.	Va.
21	Cavenaugh, Harry La Tour- rette.	Utah	Okla.	71	Pearce, Thomas Absalom	N. C.	Tex.
22	Champion, Francis Marion	Nebr.	Ill.	72	Pritchard, George Barnard, jr.	Ga.	Ga.
23	Chapman, Charles Martin	Mo.	Mo.	73	Purdy, Clarence Newcomb	Ind	Ind.
24	Charles, Oscar Jerome	Ill	Ill	74	Reisinger, Paul	Pa.	Pa.
25	Curtis, Thomas Polham	Cal.	Mass.	75	Ricketts, William Andy	Ill	Ill.
26	Darrah, Thomas Walter	Kans.	Kans.	76	Rifenberick, Richard Parker	Ohio	Ohio.
27	Davis, Glenn Hedges	Ohio	Ohio.	77	Sample, Warren Stone	Tenn.	Ky.
28	Delaney, Daniel	Cal.	Cal.	78	Schulz, Edward Hugh	W. Va.	W. Va.
29	Dennis, Samuel	Mo.	Mo.	79	Shelton, George Henry	Conn.	Conn.
30	Dickason, Denis Henry	Pa.	Colo.	80	Sills, William Gray	Ala.	N. C.
31	Dillaway, Alvan Simonds	Mass.	Mass.	81	Siviter, Francis Pierpont	Pa.	Pa.
32	Dixon, Henry Benjamin	Iowa	Iowa.	82	Smith, Fine Wilson	Ky.	Ky.
33	Duff, Clyde Lemont	Ill	N. D.	83	Smith, Harry Ernest	Me.	Minn.
34	Duncan, Daniel	Ky.	Ky.	84	Smith, Morton Fitz	Colo.	Mich.
35	Durkin, Joseph Francis	Irel'd	N. Y.	85	Springer, Anton, jr.	France	N. Y.
36	Dwyer, James Charles	Ind	Iowa.	86	Steigmeyer, Frederick Franklin.	Ohio	Ohio.
37	Dwyer, Thomas Francis	Irel'd	N. Y.	87	Stout, Harry Howard	Ariz	Pa.
38	Ebtinge, Le Roy	N. Y.	N. Y.	88	Sturtevant, Girard	N. Y.	N. Y.
39	Fergusson, Frank Kerby	Tenn.	Tenn.	89	Sweeney, Thomas Maurice	Va.	Va.
40	Fleming, Adrian Sebastian	Ky.	Ky.	90	Turman, Reuben Smith	Miss.	Miss.
41	Gold, Edward Barnett	Va.	Va.	91	Vincent, James Irving	Mich.	Mich.
42	Gurney, John Asa	Mich.	Mich.	92	Watson, Frank Bingly	Va.	N. J.
43	Hammatt, William Cushing	Me	Me.	93	Wheeler, Joseph, jr.	Ala.	Ala.
44	Hampton, Celwyn Emerson	Ohio	Ohio.	94	White, Herbert Arthur	Iowa	Iowa.
45	Hartshorne, Benjamin Min- turn, jr.	N. J.	N. J.	95	Whitesides, John Garrett	Pa.	Pa.
46	Hawkins, Clyde Emile	Pa.	Pa.	96	Willoughby, Charles Russell	Cal.	Cal.
47	Hayes, Fitzhugh Lee	N. C.	N. C.	97	Wright, Robert John	Wis.	Wis.
48	Herron, Joseph Sutherland	Ohio	Ohio.				
49	Howland, Charles Roscoe	Ohio	Ohio.				
50	Hutton, Franklin Swart	N. Y.	N. Y.				

* Admitted September 1.

VACANCIES IN THE CADET CORPS FOR JUNE, 1892.

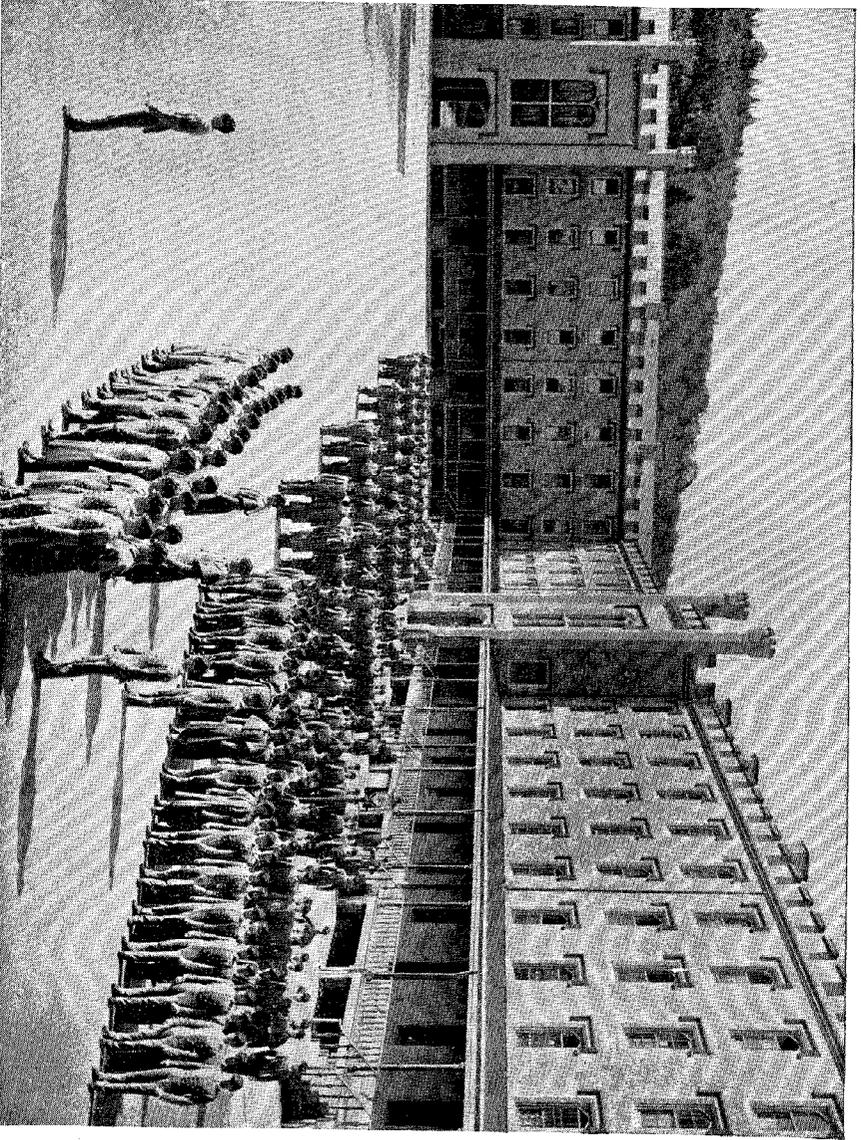
The tables given below show the districts in which vacancies now exist and those in which vacancies will exist in June next upon the graduation of the present first class. The lists were obtained from the War Department on October 3, and the asterisk (*) indicates those districts for which appointments were made up to that date. The first table shows the vacancies in the Cadet Corps on September 1, 1891. These number 70. It must be apparent to all who will give the subject the briefest consideration that a system of appointments under which so large a number of districts can be left unprovided for is sadly defective, and that some remedy is imperatively demanded to correct this large waste. It must not be forgotten that all these vacancies belong to the class which entered in June, 1891, and that at least 75 per cent. of them would have been avoided had members of Congress properly and promptly exercised the privilege bestowed upon them of nominating candidates.

The second table shows the vacancies which will exist by reason of the graduation of the present first class. These number 58, and in addition to these there will be four vacancies "at large" which the President has nominated candidates to fill. With the 70 vacancies that belong to the class which entered in June, 1891, there will be in June, 1892, 132 vacancies to be filled, and this number is pretty certain to be augmented by at least 20 casualties that will occur during the present academic year.

Congressional Districts unrepresented at the Academy September 1, 1891.

State.	District.	State.	District.
Arkansas.....	Second.*	New York.....	First.*
Do.....	Third.*	Do.....	Nineteenth.
Colorado.....	.....	Do.....	Twenty-sixth.
Georgia.....	Third.*	Do.....	Thirtieth.*
Illinois.....	Tenth.	Do.....	Thirty-first.*
Do.....	Eleventh.	North Carolina.....	Fifth.
Do.....	Twelfth.	Ohio.....	Sixth.*
Do.....	Eighteenth.	Do.....	Eleventh.*
Do.....	Nineteenth.	Do.....	Thirteenth.*
Indiana.....	First.*	Do.....	Fourteenth.*
Do.....	Third.*	Do.....	Fifteenth.*
Iowa.....	First.*	Do.....	Sixteenth.*
Kansas.....	Second.*	Do.....	Seventeenth.*
Do.....	Sixth.	Pennsylvania.....	Second.*
Do.....	Seventh.*	Do.....	Eighth.*
Kentucky.....	Sixth.*	Do.....	Eleventh.
Do.....	Eighth.	Do.....	Twelfth.
Do.....	Tenth.*	Do.....	Fifteenth.
Louisiana.....	Second.*	Do.....	Sixteenth.*
Do.....	Fifth.	South Carolina.....	Fifth.
Maryland.....	Second.	Tennessee.....	Ninth.
Do.....	Fifth.	Do.....	Tenth.*
Massachusetts.....	Seventh.	Texas.....	First.*
Michigan.....	First.	Do.....	Second.
Do.....	Second.*	Do.....	Fourth.
Minnesota.....	First.*	Do.....	Fifth.
Do.....	Third.*	Do.....	Tenth.*
Mississippi.....	Second.	Virginia.....	Tenth.
Do.....	Sixth.	West Virginia.....	Second.
Do.....	Seventh.	Do.....	Third.
Missouri.....	First.	Do.....	Fourth.
Do.....	Third.	Wisconsin.....	Fifth.*
Do.....	Twelfth.*	Do.....	Sixth.*
Nebraska.....	Third.*	Do.....	Seventh.
New Jersey.....	Fourth.	Do.....	Ninth.*

* Districts from which candidates have been selected for June, 1892.



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CADETS MARCHING TO DINNER.

Stoddard, Glens Falls, N. Y.

Congressional Districts to be vacant by the graduating class of June, 1892.

State.	District.	State.	District.
Alabama	Fifth.	New Jersey.....	Seventh.*
Do.....	Seventh.*	New York.....	Sixteenth.*
Arizona Territory.....	.....*	Do.....	Eighteenth.*
Arkansas.....	Fifth.*	Do.....	Twenty-first.*
Florida.....	First.*	Do.....	Twenty-ninth.*
Do.....	Second.	North Carolina.....	Sixth.*
Georgia.....	Fifth.*	Ohio.....	First.*
Do.....	Sixth.*	Pennsylvania.....	Fourth.*
Do.....	Seventh.*	Do.....	Sixth.*
Illinois.....	Fourteenth.*	Do.....	Tenth.*
Indiana.....	Seventh.*	Do.....	Fourteenth.*
Iowa.....	Seventh.*	Do.....	Twentieth.*
Do.....	Ninth.*	Do.....	Twenty-fifth.*
Do.....	Tenth.*	Do.....	Twenty-eighth.*
Kansas.....	Fourth.*	South Carolina.....	First.*
Do.....	Fifth.*	Do.....	Second.*
Kentucky.....	Second.*	Do.....	Fourth.*
Louisiana.....	Sixth.*	Tennessee.....	First.*
Maine.....	Second.	Do.....	Second.*
Massachusetts.....	First.*	Do.....	Fifth.*
Do.....	Second.*	Do.....	Sixth.*
Michigan.....	Eleventh.	Texas.....	Sixth.*
Missouri.....	Fifth.*	Vermont.....	First.*
Do.....	Sixth.*	Do.....	Second.
Do.....	Eighth.	Virginia.....	Second.*
Do.....	Thirteenth.*	Washington.....*
New Hampshire.....	First.*	Wisconsin.....	Second.*

* Districts from which candidates have been selected for June, 1892.

MILITARY AND ACADEMIC STAFF.

The officers on duty in June, 1891, at the Military Academy, in the several departments, was as follows :

SUPERINTENDENT.

Colonel JOHN M. WILSON, *Colonel of Engineers.*

MILITARY STAFF.

Second 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. A., Quartermaster of the Military Academy, Post Quartermaster, and Disbursing Officer.

First Lieut. DANIEL H. BOUGHTON, Third Cavalry, Officer of Police, Post Commissary of Subsistence, Post Treasurer, and Assistant to Post Quartermaster.

Maj. HENRY McELDERRY, Surgeon, U. S. A., Post Surgeon.

Capt. WM. FITZHUGH CARTER, Assistant Surgeon, U. S. A.

Acting Assistant Surgeon WILLIAM P. COMPTON, U. S. A.

ACADEMIC STAFF.

[Professors whose service at the Academy as professor exceeds 10 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).

First Lieut. Sedgwick Pratt, Third Artillery, Assistant Professor.

First Lieut. James S. Pettit, First Infantry, First Lieut. John B. Bellinger, Fifth Cavalry, Instructors.

First Lieut. Frank S. Harlow, First Artillery, in charge of Observatory and Astronomical Observations.

Department of Modern Languages.

GEORGE L. ANDREWS, Professor (28 Feb., 1871).

Capt. Edward E. Wood, Eighth Cavalry, Assistant Professor of the Spanish Language.

First Lieut. Warren P. Newcomb, Fifth Artillery, Assistant Professor of the French Language.

*First Lieut. Charles H. Hunter, First Artillery; First Lieut. William W. Forsyth, Sixth Cavalry; First Lieut. Benjamin Alford, Twenty-second Infantry; †Second Lieut. Samuel D. Sturgis, First Artillery; * Second Lieut. John E. McMahon, Fourth Artillery, Instructors.

Department of Drawing.

CHARLES W. LARNED, Professor (25 July, 1876).

‡First Lieut. Hamilton Rowan, Second Artillery, Assistant Professor.

First Lieut. George H. Cameron, Fourth Cavalry; Second Lieut. Cecil Stewart, Third Cavalry; Second Lieut. E. S. Wright, Ninth Cavalry, Instructors.

Department of Mathematics.

EDGAR W. BASS, professor (17 April, 1878).

First Lieut. John A. Lundeen, Fourth Artillery, Assistant Professor.

First Lieut. Wright P. Edgerton, Second Artillery; First Lieut. Charles R. Noyes, Ninth Infantry; †First Lieut. Harry C. Benson, Fourth Cavalry; First Lieut. George F. Barney, Second Artillery; †First Lieut. Alfred B. Jackson, Ninth Cavalry; †First Lieut. Samuel D. Freeman, Tenth Cavalry; Second Lieut. Frank McIntyre, Nineteenth Infantry, Instructors.

Department of Chemistry, Mineralogy, and Geology.

SAMUEL E. TILLMAN, professor (21 December, 1880).

First Lieut. John P. Wisser, First Artillery, Assistant Professor.

* First Lieut. Erasmus M. Weaver, jr., Second Artillery; Second Lieut. Elmer W. Hubbard, First Artillery; Second Lieut. Harry Freeland, Third Infantry, Instructors.

Department of History, Geography, and Ethics.

WILLIAM M. POSTLETHWAITE, Chaplain, Professor (21 December, 1881).

First Lieut. Frank L. Dodds, Ninth Infantry, Assistant Professor.

First Lieut. Francis J. Kernan, Twenty-first Infantry, Instructor.

Department of Civil and Military Engineering.

JAMES MERCUR, professor (29 September, 1884).

First Lieut. Harry F. Hodges, Corps of Engineers, Assistant Professor.

First Lieut. Lansing H. Beach, Corps of Engineers; First Lieut. Joseph E. Kuhn, Corps of Engineers, Instructors.

* Relieved from duty at the Military Academy June 15, 1891.

† Relieved from duty at the Military Academy August 28, 1891.

‡ Relieved from duty at the Military Academy August 8, 1891.

Department of Tactics.

Lieut. Col. HAMILTON S. HAWKINS, Twenty-third Infantry, Commandant of Cadets and Instructor of Tactics. (1 Feb., 1888.)

Capt. Louis A. Craig, Sixth Cavalry, Senior Assistant Instructor of Cavalry Tactics.

First Lieut. John D. C. Hoskins, Third Artillery, Senior Assistant Instructor of Artillery Tactics.

First Lieut. Edward E. Hardin, Seventh Infantry, Senior Assistant Instructor of Infantry Tactics, commanding Band and Detachment of Field Music.

*First Lieut. William W. Galbraith, Fifth Artillery, Assistant Instructor of Tactics, commanding Company of Cadets.

*First Lieut. John A. Johnston, Eighth Cavalry, Assistant Instructor of Tactics, commanding Company of Cadets.

First Lieut. Daniel L. Tate, Third Cavalry, Assistant Instructor of Tactics, commanding Company of Cadets.

Second Lieut. Robert A. Brown, Fourth Cavalry, Assistant Instructor of Cavalry Tactics.

Second Lieut. T. Bentley Mott, First Artillery, Assistant Instructor of Tactics, commanding Company of Cadets.

Department of Law.

JOHN W. CLOUS, Major and Judge Advocate, U. S. A., Professor (28 Aug., 1890, by assignment under act of 6 June, 1874).

First Lieut. Frank L. Dodds, Ninth Infantry, First Lieut. Francis J. Kernan, Twenty-first Infantry, Instructors.

Department of Ordnance and Gunnery.

†Capt. HENRY METCALFE, Ordnance Department, Instructor (28 Aug., 1886).

First Lieut. Edwin B. Babbitt, Ordnance Department, First Lieut. John C. W. Brooks, Fourth Artillery, Assistant Instructors.

Department of Practical Military Engineering.

Capt. GEORGE MCC. DERBY, Corps of Engineers, Instructor (4 Jan., 1889).

First Lieut. Eugene W. Van C. Lucas, Corps of Engineers, Second Lieut. Charles H. McKinstry, Corps of Engineers, Assistant Instructors.

HERMAN J. KOEHLER, Master of the Sword.

ARTHUR A. CLAPPÉ, Teacher of Music.

* Relieved from duty at the Military Academy August 29, 1891.

† Relieved from duty at the Military Academy August 8, 1891.

CONCLUSION.

The Board earnestly commends the Military Academy to the fostering care of Congress and the liberal support of the people. It is the only national military school we have, and nothing should be left undone to maintain its high character, promote its efficiency, and increase its usefulness. National pride, regard for the common defense, and sound public policy require that its equipment should be thorough, and that the highest patriotism and best talent should continue to characterize its direction. Its graduates in the past have met every requirement of the public service, and there can be no manner of doubt that should occasion arise West Point will in the future fully meet the expectations of the American people. No consideration of economy should be permitted to thwart or delay the furnishing of proper supplies and equipment so urgently needed to place the Military Academy abreast of similar institutions in other countries.

The deficiencies in proper equipment now so manifestly apparent should be corrected without delay by Congress. Considering these deficiencies, which have been pointed out in this report, it is surprising that those charged with the immediate direction of the Academy have accomplished, and are still accomplishing, such remarkable results. Even with the existence of deficiencies in equipment, our Military Academy does not materially suffer by comparison with similar schools of Europe. If we compare the advantages of West Point with other military establishments it will be seen how much wider and broader are our systems of military education. In England there is one school devoted alone to training officers for the staff, and although much of the education is devoted to field work and out-door duties, military history and languages receive close attention, and in addition, as in our Academy, special care is given to the sciences, and especially practical astronomy.

The value of astronomy alone as a potent adjunct in military warfare was seen in Egypt, when the regiments of Lord Wolseley made a night attack on the Arabs, and went into action by the guidance of the stars. The stars marked the line of advance and the position of regiments, and in a country where the skies are generally cloudless, and the stars always shine, such aspects of nature as are manifest at so many points on our continent, astronomy becomes as important as at sea. There is another English school of apparently a lower grade, for the training

of officers in cavalry and infantry, and where the tuition embraces the elementary principles of military art. The Woolwich Academy, perhaps the best known, prepares officers for the artillery and the engineers. Here the scholars are expected to spend three years, and when graduation comes, the cadets with the higher averages, like our own, can have an option on the engineers.

For a cadet to pass either through one school or the other and afterwards take staff duty, involves an additional course of two years. So that a subaltern in the British army can hardly hold himself as equipped for duty without an educational training of five or six years. In these schools, however, the standard has steadily advanced. Critics who complain of the higher grades established at West Point, and the apparent hardships attending an entrance to the Army, forget that there has been a steady progress in the art of war—that war is a progressive art—and that even the elementary problems are not under present conditions, as was possible in ruder times, to be passed without a certain maturity of mind.

The days when regimental colors were given to boys of 13, when even as famous a general as Marlborough was promoted from court page to the Guards at 16, and Wellington was made an ensign at 17, have passed away. The very eminence that Marlborough and Wellington attained in the military art would have had added value if either of them had taken the colors with as complete an academic education as Napoleon, Grant, Moltke, Sherman, Wolseley, and commanders of equal fame. Not alone as masters of the art of war, but in the civil functions which so often devolve upon the modern soldier, this academic education such as Napoleon enjoyed, and as we have in better form at West Point, must have great value. The just criticisms of history upon the civic careers of Marlborough and Wellington; the incredible mistakes of Wellington, especially in keeping out of tone and temper with the English people when he was in the cabinet and prime minister, would have been impossible to the soldier, however brilliant as a tactician, whose mind had been formed upon the sound academic principles of our Military Academy.

In these later years when we train soldiers it should be remembered that the art to be a soldier is only the first step in the art of being a statesman. And nothing, we think, redounds more to the glory of the Academy than the fact that so many of her alumni hold so proud a position in the civil annals of their country.

The Army is the disciplined force of the nation. It is the expression of national power. As no chain is stronger than its weakest link, so no nation is stronger than the organized military embodiment of its strength. Now, if we accept this as an axiom, one which, unhappily or otherwise, has been imposed upon us by modern civilization, then it is the first duty of the lawgiver to see that the sword of the nation is even-tempered and true. There are various examples. If we look at England

we have an army which is a class. It stands apart from the nation. When there is the canker of a long peace it is apt to disintegrate or suppurate into mutiny.

Not many months since a regiment of the Guards bearing one of the illustrious names in the British service was sent into exile because it would not obey its officers. The mutiny, however, was not really against military duty, but against the enervation of London life, barrack luxuries in Knightsbridge, and a system of command which severed the men from any actual contact with their commanders; which permitted officers to dawdle around clubs and drawing rooms; and, keeping out of touch with their men, remanded them to noncommissioned officers for whom the men had no respect, and who were incapable of intelligent authority. Such a mutiny would have been impossible in an American regiment under graduates of West Point. Every American officer is in sympathy, in contact with his command. To this extent, therefore, the West Point training does away with the evil of the Army becoming a class, the evil which English critics appreciate and deplore.

This English system of isolation is only possible in an army whose principal duty is to govern Ireland and police England on occasions of royal ceremony. A large part of the English army is needed to govern India, 75,000 at least of Europeans in that separate command alone, with an unusual percentage of artillery, as would be expected from a military organization whose duty is the defense of garrison towns. As India is practically a nation of garrisons, the military laws governing its army must be narrow and limited, and are hardly worthy of consideration as far as they apply to other systems of military education.

On the continent conditions have found the other extreme. Empires are armies. Under the law of conscription, which the French revolution bequeathed to the monarchies, the military aspect changed, and it seems as if continental nations were returning to the nomadic methods of warfare which made possible the invasions of Genghis Khan and Timour. Conscription was the source of the extraordinary battalions of Napoleon, and made it possible for him to lose an army in the snows of Russia in one year and take another from the fields and vineyards of France for the year ensuing. Germany was better served in her own method of thorough discipline. Reduced as Prussia was, during Napoleonic wars, to the necessity of maintaining a small standing army,—not quite 50,000—the Germans kept constantly changing their men as soon as drilled. The army in the field was, therefore, simply one of recruits. At home in peaceful employments, but waiting the sound of the drum, was an ever increasing army of well-trained men.

This short-service system, as a contrast to the long term which prevails in England—and that of desertion and pardon, which may be summed up as the existing condition of the American Army—compelled the establishment in Germany of high-class schools for military education. And

although the German system became more like the French after the war with Austria in 1866, and conscription has become as fixed under the German Emperor as under Danton and the French revolution, it was necessary that the German army should be strong at the top. Armies might come and go; one generation would tread on the heels of another; the front ranks would soon fall out, if not before the bullet of the enemy before the surer and steadier fire of advancing years; but there must be a permanent, highly trained head, and especially a staff which should be as perfect in its workings as the most cunning inventions devised by the mechanical genius of man.

We find in this staff system the highest form of military attainment toward a perfect knowledge of the art of war. Moltke's military genius reduced to a Euclid problem is its supreme type. The nearer therefore we approach its severe and thorough standards in our Academy the better the ultimate value to the nation, should war come with its stern supreme commands. No amount of intelligence, natural aptness, ability in active peaceful business or industrial callings, will take the place of this finished and exacting education. The unarmed nation is the surprised nation. No high development of art and genius can resist the sword. Look at countries like India, Egypt, the Roman Empire, before the northern invasion, the Chinese Empire. How admirable their development! What art! what literature! What have they not done for man? There is no day, no hour, when we may not feel an obligation to them. In the finer forms of civilization, in poetry, literature, morals, and exquisite achievements of patience and artistic fancy, how much we may learn from them. Yet, because they neglected the one art of all in which everything is embodied, honor, safety, prowess, national pride, and the very integrity of religion and home; because the art of self-protection was permitted to drift into abeyance, they became the prey of ravaging tribes and conquering nations. The dagger in the hands of a Vandal was mightier than the verses of Homer and Virgil, while the sword in the hands of an Englishman was a power greater than the luxurious civilization of generations of Mogul princes.

What these highly developed and refined nations never learned, we should not forget to learn, until like them, it may be too late. There is no civilization stronger than its capacity for self-defense. Its capacity for self-defense can only be measured by the standards of its highest military education. It should be the aim of those who govern our Military Academy to advance towards an ever ascending, ever maturing ideal. They should remember that the science of war changes with the generations; that every new force in nature will in time be a new force in war; that the telegraph would have made the surprise of Austerlitz impossible; that the telephone would have brought Grouchy to Waterloo in time to have saved the battle for Napoleon.

We must remember that science and discovery have not come to a standstill, that these forces will grow as they have grown, and that the

surest military faculty is that which is instant to search them out and apply them. With trained men to lead the nation, there need be no fear of what the people will do in the day of peril. It has been the high privilege of West Point to give the nation such leaders, and their renown now illumines the noblest pages in our country's annals. Let us so guard and strengthen the venerable Academy that, with other trials, other soldiers will come from its halls ready to defend the Republic and add new luster to the glory which, as a proud heritage of West Point, surrounds the names of Thomas and Sheridan, Sherman and Grant.

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