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U. S. Mil. Academy,
ANNUAL REPORT

OF THE

BOARD OF VISITORS

OF THE

UNITED STATES MILITARY ACADEMY,

MADE TO

THE SECRETARY OF WAR

FOR

THE YEAR 1879.



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1879.

REPORT
OF THE
BOARD OF VISITORS OF THE MILITARY ACADEMY AT WEST
POINT FOR 1879.

SIR: The Board of Visitors appointed to examine the Military Academy for the year 1879 respectfully submit the following as their report.

The board was organized on the 3d of June by the election of Noah Porter, president; Dorman B. Eaton, vice-president; and Henry L. Abbot, secretary.

The following gentlemen were appointed by the president to serve upon the committees ordered by the board, the president being *ex officio* a member of each.

1. *On buildings and grounds, including barracks, mess, lighting, and hospital supplies:* General H. L. Abbot, Hon. E. Hale, Hon. D. B. Eaton, Hon. W. Windom.

2. *On fiscal affairs, including accounts, expenditures, and needful appropriations:* Hon. J. H. Blount, Hon. J. B. Gordon, Hon. E. Hale, Hon. W. Windom.

3. *On government, including organization, police, discipline, and drill:* Hon. J. B. Gordon, R. H. Anderson, esq., Rev. W. K. Hall.

4. *Education, including qualifications for admission, course of study, methods of instruction and examination, text-books and apparatus:* Hon. D. B. Eaton, General H. L. Abbot, Rev. W. K. Hall, G. W. Jones, esq., Hon. R. M. McLane, and C. P. Buckingham, esq.

A majority of the members of the board were in attendance during the examination of the first class, and several remained till the conclusion of the examinations of the remaining classes. The several committees visited the offices, buildings, and grounds, and carefully inspected their condition, examined the books of account and the methods of keeping the same, conferred freely with the superintendent, the commandant, and the other members of the academic board in respect to every subject of inquiry which was proposed, and attended with great interest at the military exercises, which are an instructive and exciting feature of the yearly examination. They were treated with courteous attention by all the officers of the post. Every part of the institution was freely open to their inspection. Their questions were answered with entire frankness. Those features in the organization and conduct of the institution which suggested any criticism or inquiry were freely discussed and explained and the special difficulties which are incident to the management of a system of military education by the National Government were not disguised. The board encountered no inconveniences or difficulties in the discharge of their duties except such as were occasioned by the want of familiarity on the part of many of the members with the interior workings of the institution and with the duties incumbent upon themselves as Visitors. They were somewhat

embarrassed by the want of certain facilities for the speedy organization of their body and the orderly and efficient transaction of business, which was incident to their residence at an overcrowded hotel and to the strangeness of most of their number to one another, to the duties which were expected of them, and to the methods by which these duties could be satisfactorily discharged. They would suggest that it would conduce to the convenience of future Boards of Visitors if a compilation of the laws and important facts in the history of the Academy were prepared as a guide for their inquiries. Such a board ought not to be obliged to search volumes of pamphlets, some of which are not readily accessible, in order to gain the information which is necessary to the discharge of its functions. At best, the short period of time allotted to its sessions is severely taxed by the novelty of the subjects which its members are called to consider. These difficulties have been encountered by the Board of Visitors in previous years, and from time to time have been somewhat freely discussed. The question was more than once raised during our conferences whether the reappointment for one or two years of one or two members of a previous board would not facilitate the transaction of business and give greater weight and efficiency to the recommendations that are made. The Military Academy cannot expect and ought not to desire to be withdrawn from public scrutiny. At a time when all established institutions and systems of education are severely criticised, a system so old and peculiar as that of this Academy must encounter constant and often unfriendly animadversion. It will be challenged at every turn, and must be prepared to give an answer to every questioner, whether he be friendly or hostile. In such a condition of public feeling it may sometimes be difficult to decide whether superficial and ignorant criticism or indiscriminate laudation will do the greater injury. Any special occasion of jealousy towards it, whether political or military, cannot be entirely disregarded. In this condition of opinion it may not only be desirable but imperatively necessary that its theory of education should be thoroughly canvassed by the intelligent friends of education, that its merits should be vindicated, and its defects should be freely confessed and exposed, and so far as is practicable be speedily remedied. It is in this spirit that we have conducted our examinations and made our inquiries, and as the result we submit the following statements and suggestions:

1. *Buildings and grounds, including barracks, mess, lighting, and hospital supplies.*

We find that the cadet barracks are, in general, well fitted for the purpose for which they were designed, but are insufficient to accommodate the corps. Several of the rooms are necessarily assigned to assistant instructors in tactics. Other officers are quartered in the cadet barracks by reason of the insufficiency of quarters for them elsewhere at the post. Such occupancy has been allowed for over thirty years. The consequence has been that for many years three cadets have been crowded into several rooms which are fitted for two only. To provide for the maximum number of cadets likely to be present on the 1st of September next one hundred and sixty (160) rooms would be required, were two allotted to each. The number of rooms at present available is one hundred and thirty-six (136), twenty-four (24) additional being imperatively needed. The board would urgently represent that although a few of the rooms are slightly larger than the others, none of them are sufficiently ample to accommodate *three* inmates, and that the reasons are manifold, especially in view of the arrangements within the rooms and also of the peculiar life of the cadets, why no more than two persons

should be placed in a single apartment. The barracks were completed twenty-eight years ago, and at that time were sufficiently large; but the classes have been considerably enlarged by the increase of the number of Congressional districts, and the time has come to extend the wing according to the original plan. We recommend that this be done immediately to the extent of at least *two* subdivisions, thus adding thirty-two (32) rooms. This extension should, as it easily may, be furnished with additional facilities for bathing in the basement; the present accommodations, though well arranged, not being sufficient for the cadets, especially considering their peculiar life.

The barracks are warmed by steam radiators and pipes which are connected with boilers placed in a separate building in the rear. This arrangement is defective in that it makes no provision for ventilation such as might easily be effected by the introduction of fresh and freshly-warmed air from without. We recommend that the radiators be placed in the recesses or spaces immediately beneath the windows, and that arrangements be made for introducing the air directly upon them beneath a second casing or false window-sill. If necessary the chimney-flues may be fitted with pipes for steam to create a brisker upward current.

These barracks are lighted by gas, which is insufficient in quantity for this and the other needs of the post. Complaints have heretofore been made that the cadets have suffered in their eyes from the use of gas, and although the burners have of late been improved, we learn that the complaints still continue. The paper subjoined in the appendix, marked A, furnishes all needed information in respect to the supply of gas and the unsatisfactory condition of the gas-works. The committee would submit that if there is no serious objection to the use by the cadets of student-lamps, this experiment should be made for the relief and preservation of their eyesight, and that pending the experiment the present gas-works should be kept in repair to supply the rest of the post.

Many of the rooms in the barracks require repainting and whitewashing. Their condition is at present far from being satisfactory in these and some other respects, but we are assured it will be improved during the present summer encampment.

The mess arrangements merit unqualified commendation. The building is well arranged and the table is furnished with plain but wholesome food. In accordance with a law of Congress passed in 1876, an officer of the Army was specially charged with the supervision of this important matter. The duty was devolved upon First Lieut. S. M. Mills, Fifth Artillery, and we desire to express our commendation of the manner in which the work has been performed. Under his personal supervision and management the cost has been reduced, and the quality and variety of the food, and the manner of serving it, has been much improved.

The present hospital arrangements exhibit evidences of scrupulous care and attention. For the ordinary needs of the cadets the accommodations are sufficient, though not of the first class; the apartments being neither roomy nor airy and the other appliances not the most convenient. The new hospital building is so far advanced that its plan cannot be essentially modified. Hence, although the building is liable to grave objections on the score of economy, we recommend the completion of that portion of it which has already been begun, leaving the ultimate use of the building to be decided hereafter.

The provisions for protecting the field batteries (which are used in the instruction of the students) against the weather are insufficient. We

recommend that a sum not exceeding \$1,200 be appropriated for the erection of sheds for this purpose.

The grounds of the post are generally in an excellent condition. We recommend that the most liberal appropriations should be made and the most unremitting and attentive care should be exacted in promoting the growth of the trees by furnishing generous nutriment and also by cutting away any growth which is excessive or promotive of dampness, also in opening any thickets or undergrowth which might serve as hiding-places for any decaying or offensive matter. This last is of special importance in its relations to the health of the cadets while in their annual encampment.

2. *Fiscal affairs, including accounts, expenditures, and needful appropriations.*

The accounts of the disbursing officer and of the treasurer of the corps of cadets have been carefully examined by the committee designated for this duty, who report that they are kept in a satisfactory manner. They submit an abstract furnished by the disbursing officer of the receipts and expenditures for the year ending June 10, 1879 (Appendix B). This contains a statement of the amounts appropriated for the year under several heads and also of the amounts expended under the direction of the superintendent. They also submit a statement by the treasurer of the corps of cadets (Appendix C) of the receipts and disbursements on account of the same. They add also a special communication from the same officer (Appendix C), explaining the so-called cadets' quartermaster's fund and the cadet subsistence fund.

3. *Government, including organization, police, discipline, and drill.*

The board see no good reasons for recommending any changes in the laws and regulations which govern the institution. Their wisdom has been tested by time and experience and the necessities of the military profession and the soldier's life. They believe also that the traditions of the Academy, or its unwritten law, sustain and enforce the virtues of truth and honor with an energy and impartiality which deserve the highest commendation. They regret to be obliged to add that the virtue of courtesy toward the stranger and the unprotected, which has been generally accepted as emphatically soldierlike, is now and then grossly dishonored in the treatment of members of the newly-admitted classes. They are happy to find evidence that the present superintendent has sought to temper his military authority by a wise discretion in the administration of discipline, in such a way as to soften the rigors without weakening the force of military rule. They find evidence that he is sustained in this wise policy by the members of the academic board and believe that during the seventy years of the history of the institution there was never a time where its discipline was more wisely administered and the spirit and aims of the officers and cadets were deserving of higher commendation. At the same time they desire to reaffirm a truth, which is easily overlooked in any educational institution, perhaps most easily in an institution under military law—that the personal influence of the men who administer its instruction and discipline are of greater consequence than its regulations and its penalties.

There is one point in the exercise of discipline which needs to be carefully guarded and that is the authority of the academic board. So far as the authority or influence of this board is related to the instruction and examination of the cadets or the determination of their rank and place in the corps, its decisions should, in all cases, be final, it being understood as a matter of course that the superintendent concurs in the same. Whatever discretion any superior, civil, or military officer

may find occasion to exercise, the mitigation or reversal of any of the decisions of the teaching corps which concern the intellectual performances of their pupils, or their rank or status as determined by the same, can only weaken the rightful authority of those who in such cases may be presumed to be the only competent and impartial judges. Even the recognition of the possibility of the interference of any higher authority can only be disastrous. Uncontrolled academic freedom of teaching and untrammelled academic authority in examination are the necessary conditions of academic success. The responsibility of the instructor to his military superior, and of the cadet to his instructor as an officer, should in our opinion never be interpreted in such a way as to interfere with the free and unchallenged exercise of those functions which are essential to the enforcement of intellectual discipline.

The perfection of the drill of the students at their daily parades and in their various military exercises deserves the highest praise. It is the most satisfactory evidence of the necessity and the value of the severity and constancy of the discipline to which the cadets are subjected from which there can be no exemption to any one who proposes to himself the career of an officer.

4. *Education, including the course of study, methods of instruction, text-books and apparatus, and qualifications for admission.*

The course of study is such as is generally recognized to be essential to a military education, and in its predominating features remains the same as that adopted at the foundation of the school. The mathematics, pure and applied, being the necessary foundation for engineering and gunnery, constitute the introduction and the staple of the curriculum. Engineering and gunnery are the special military applications of the same; and drawing, a necessary condition of every military science and art. Physics, molecular and molar, with astronomy, are so eminently mathematical as to seem essential to the finished mathematician, and without these sciences the material universe cannot be scientifically understood. As chemistry was gradually developed, its subtle mathematical relations, together with its concern with the materials used in ordnance, opened for it an important place in the course of study. The French language, being at once pre-eminently the language of military and mathematical science and the passport to European society, was naturally selected as the one language which was essential to the accomplished officer. When the relations of the nation to the Spanish speaking peoples were actually or prospectively important the Spanish language was added. More or less provision was made at a very early period for instruction in ethics, history with military and international law, but never in any such proportion as the importance of each required till the somewhat recent expansion of the department of law. Chemistry brought in mineralogy and geology through the somewhat accidental, and yet not unnatural, conjunction of these departments which prevailed in the colleges, but geology did not bring any branch of natural history except mineralogy, while physiology, both vegetable and animal, were overlooked. The apparently accidental omission of these and other branches of modern science, and the designed omission of history, literature, and philosophy, are explained by the consideration that the course of study was designed to be in the main professional as contrasted with one that should be liberal; in other words, its original design was to train young men to be efficient and accomplished officers within a limited time, many of whom had received a very limited elementary education. Those who criticise or desire to alter it should consider the material which the instructors receive and the time

allowed for molding it before they condemn its methods or their results. They should also bear in mind that it must do more than train the intellect, and that its drill and manifold exercises are more than mere physical gymnastics, such as might be required for health or enjoyed as pastime, but that they involve fatigue, exposure, and the waste of a reserve of nervous energy which might otherwise be expended in intellectual activities. Most of all they should remember that the pupils who are received are required to be masters only of the merest elements of a so-called English education, and need not necessarily have been subjected to any considerable intellectual discipline.

As a professional school, it must have a fixed and an enforced curriculum. Whatever changes might be advantageously made in the studies pursued or in the time allotted to each, it is self-evident that every officer in the service needs to master all the studies which any curriculum can find room for, and that the genius of military life would require that he should be constantly measured with his fellows. Whatever advantage any student might derive from his previous studies or from his earlier discipline, would naturally appear in the easier and more thorough mastery of his appointed work, or in the prosecution of additional reading and study. It does not follow, however, because the Academy is necessarily a professional or technical school, that it does not also impart a very effective intellectual discipline. No intelligent man can doubt that it does who has observed the average cadet as he enters and as he leaves the Academy. While all this is true, it is a question which in the judgment of the board deserves serious consideration, whether the course of study might not be essentially improved in the proportions allotted to the branches now pursued, and by the introduction of other studies. They would suggest that the German language be substituted for the Spanish as being one of the foremost languages of science in all its branches, the military included, and as furnishing an excellent discipline for understanding and writing English with intelligent judgment. It would seem as though botany, zoology, and physiology, both animal and vegetable, were as instructive and as useful for the officer as mineralogy, and have almost as near a relation to geology; while it is essential that the prominent facts and the most important lessons of history should be wrought most thoroughly into the memory of every officer. We hail with great satisfaction the indications that general and military jurisprudence are recognized as necessary to the education of every graduate, and we trust that a special chair will very soon be permanently assigned to this department, to which the constitutional history of the United States might very properly be attached. We are constrained to add that although the severe mathematical discipline of the curriculum, in a certain sense, is also a discipline in logic, yet if it were possible to find a place for a thorough study of induction and deduction, with an ample praxis of the analysis and criticism of arguments, it would make the cadets better reasoners and writers; and if introduced before the middle of the course, might facilitate their progress in both scientific and liberal studies in the later years.

The arrangements for instruction are in many respects admirable. The division of the classes into small sections, including as they do never more than twelve pupils, each of which is assigned to a recent graduate as an assistant to the professor in charge of the department, the supervision and constant visitation of each section by the professor himself, with liberty at any time to take the work of instruction out of the hands of his subordinate, the ample time allotted to each exercise, together with the careful work required of every man and the weekly

publication of his relative standing, the gradation of the sections as higher and lower, and the constant shifting of the cadets from one to the other, all these arrangements, when constantly re-enforced by the fact that the cadet is an enlisted and paid employé of the nation which is educating him for its service, combine to make the intellectual discipline as efficient as can easily be imagined. The methods of recitation and examination correspond. Constant use is made of the blackboard, on which the student is required to *tabulate* in writing the heads of his work, and to illustrate it by the needed drawings and diagrams. The military bearing of the pupil, the alert and attentive attitude which is insisted on, the complete mastery of the topic which is waited for, the absolute self-reliance which is expected, are all that could be desired. It should be added that the exaction of a clear and complete exposition of any topic which is discussed, itself involves a rigid logical and rhetorical training such as compensates to a good degree for formal instruction in the construction of sentences, the selection of words and the arrangement of thoughts, and explains why with so little formal rhetorical instruction, the graduates of the Academy so frequently exhibit the best qualities of a good English style.

Notwithstanding all these advantages it may reasonably be questioned whether this rigid uniformity is not carried too far, and whether a greater variety in the methods and the subject-matter of instruction would not relieve the course from a wearisome monotony, and impart a higher interest in their work to both instructors and pupils—whether a greater variety in the subjects taught and in the manner of teaching would not make the system more elastic, more exciting, and more efficient, and at the same time impart still greater effectiveness to its discipline. We see no reason why instruction on a very great variety of topics should not be given by lectures from the very accomplished men who are selected as professors and instructors, nor why special efforts should not be made to relieve the strain and monotony of the mathematical and scientific curriculum by the discussion of a great variety of these miscellaneous topics in which all men of liberal culture are supposed to be interested. We are confident that whatever time might be required for such instruction would be more than compensated for by the greater elasticity of the minds of the students, and that the habits formed by reporting oral instruction clearly and methodically, would be recognized as in harmony with the excellences looked for in the accomplished officer. We are confident that were culture of this sort more distinctly recognized and more directly stimulated in the curriculum and the training, it would contribute to the intellectual activity of the young officers after they leave the Academy and enable them to add a greater variety to the brilliant contributions which they have made to science and literature. Were nothing more accomplished at first than two lectures for each week, during the four years of the course, on practical, historical, and philosophical topics, there would be no loss of time for the curriculum at present established, while the gain would be immense in its immediate and permanent value. The board would particularly recommend that a course of lectures upon hygiene should be delivered very early in the course, and that the instruction upon ethical and practical subjects now given by the chaplain should be supplemented by more formal lectures upon such additional subjects as would excite in the cadets the desire for general culture and stimulate in them a taste for reading by turning their attention to the many discussions which are now engrossing the minds of thinking men. While nothing can be more unsuited to the position of a military man than a heated partisanship with respect to the many speculative and

political discussions of the hour, the partisanship of unreflecting and scantily informed prejudice, especially in a class of officials intrusted with large prerogatives, is to be carefully avoided and guarded against. All lectures such as are recommended, it hardly need be said, should be followed by rigid examinations, either oral, or of the notes taken by the pupils, one or both, for which there is ample force in the numerous assistants provided for the professors.

The board would also recommend that immediate attention should be given to the inquiry whether more formal and systematic arrangements may not be adopted, in addition to those already provided in the schools of artillery, engineering, and ordnance, for the advanced education and culture of all the graduates of the Academy during the additional four years for which they are especially enlisted. They would urge that if practicable special examinations should be held for all without exception once or twice during this term of service in studies and reading definitely prescribed, and particularly that special inducements to enlarged studies should be furnished to the assistants who are detailed for service at the Academy. They are gratified to learn that the superintendent has already initiated arrangements for voluntary activities of the kind last mentioned, and would welcome them as the indications and promise of more complete and formal efforts towards a systematic course of general and special studies for all the graduates.

The apparatus and appliances for instruction are in general all that are required, and in good condition. The department of drawing needs an appropriation for tables and other conveniences such as might be granted at any time on the recommendation of the superintendent. The departments of philosophy and chemistry, jointly, have pressing need of a thermodynamic motor, which they might use in common, and which would cost \$3,000. This might have been purchased long ago by accumulating the joint savings from the sums annually set apart to each of these departments for apparatus, did not a statute require that any portion of such appropriations which is not expended within the year should be covered into the Treasury. The board would also call attention to the necessity of special conveniences for systematic and thorough instruction in swimming as imperative and immediate.

Many of the criticisms and suggestions already submitted will have suggested the inquiry which has often been raised, viz, whether the subjects and methods of instruction can be materially improved so long as the conditions of admission and method of appointment remain unchanged. This inquiry has been the theme of frequent remark by the Board of Visitors and the friends of the institution, as also the kindred question, whether the time of curriculum might not be extended with advantage. In respect to the last inquiry, we would call attention to the fact that the experiment of a five years' course has been tried and abandoned more than once, and has apparently not justified the anticipations of its friends. It is also the deliberate conviction of many who are minutely conversant with the workings of the institution that the period of four years is long enough for an enforced curriculum of so severe and monotonous a character.

The methods of selecting and appointing new recruits and the qualification for admission, which should be insisted on open a wide field for inquiry. Your board have already adverted to the fact that a very considerable portion of the first year of the course must be spent in teaching the very elements of knowledge and in training to those intellectual habits which every elementary education more or less perfectly matures. This disadvantage is the more serious in view of the fact that

the education, when complete, is necessarily very largely professional, and that the restrictions involved in a military *régime* cut off the cadets from a free companionship with young men of their own age. Moreover, the fact is unquestioned that those cadets whose previous education has been generous and severe have very great advantages in the competitions of the Academy. It is no more than just to the young men themselves than it is to the country, that the cadets should not only enter upon the competitions of Academic life with the best possible preparation for their subsequent studies, but that they should prosecute these competitions upon as nearly equal terms as is possible. The truth cannot be too often nor too earnestly repeated that the Academy exists for the service of the country, and that its sole design is to find and train for the country those who will prove to be the most accomplished and serviceable officers. It would seem to be a self-evident truth that the nation has a right to the services of the most promising of its youth who are willing to employ their energies and their lives in its defense against domestic disorder or foreign invasion. That method of selecting the future officers of its army can only be the best which enables the country to avail itself of the best of its citizens who are animated by this desire. Experience has proved that a fair examination, open to all who are willing to submit themselves to its tests and the subsequent restraints and discipline of military life, is the best method of making the selection. We do not inquire how such an examination should be conducted, nor who should be admitted to its competition. We contend only that all those who comply with the conditions prescribed should be allowed to compete for the service and honor, and that the selection should be made on grounds which shall be impartially applied. It is obvious that every provision that is practicable should be made to render these examinations wise and impartial. The limits of age, the studies prescribed, the methods of testing capacity and promise, and of guarding against misjudgment or favoritism, are particulars in respect to which experience might be expected to reveal increasing wisdom and modify old traditions or usages, but the principle remains unshaken, that the country has a right to select the best of its youth who are willing to give themselves to its service, and until the country can execute this right the country itself and its choicest citizens must both suffer wrong.

An additional reason for applying these principles to a radical change in the method of selecting recruits for the higher military service of the country is found in the consideration that such a change would render it easy to raise the terms of admission, and thereby to enlarge and elevate the curriculum of study. Under the operation of the present system the time and energies of an able corps of instructors are necessarily employed for nearly a year in giving instruction in those branches of elementary knowledge which are taught in the public schools of the country, and the early part of the curriculum suffers by comparison with that of most of the institutions for the liberal culture of young men of equal age with the cadets. The fact that in some respects this institution stands higher than any other, does not relieve it from this infelicity. While for many reasons it may be conceded that its pupils should not be admitted at an advanced age, it is only reasonable to insist that its lowest class should have mastered as much elementary knowledge as may be gained by the average of the graduates of our highest public schools.

The method of appointment which at present prevails, briefly stated, is as follows: Places for ten cadets are filled by the President of the

United States from the country at large. The remaining places are assigned one to each Congressional district and Territory and the District of Columbia. These assignments are made by the Secretary of War at the request of the Representative from each district to a *bona fide* resident. An alternate may be selected at the same time who may be examined for admission at the same time with the primary, and take his place if he fails and the alternate succeeds. Most of these appointments are made at the discretion of the Representative, with no opportunity for any competition between those who might be desirous of the place. In a few but increasing number of cases the Representative makes his recommendation after an examination, which is open to all competitors within the law. This examination, from the nature of the case, is limited to the intellectual qualifications of the applicants.

The defects and evils which attend the working of this nomination and appointment of cadets without opportunity for competition, and without examination, are suggested and confirmed by the following instructive facts. By a reference to Appendix F of the present report, and also to E of the report for 1877, it will be seen that the proportion of the cadets who are appointed to the number actually admitted is unreasonably large. This points to a radical defect in the prevailing methods of selection and appointment. It will be seen, moreover, that the number of those rejected by the medical examiners is very much smaller than of those set aside for intellectual deficiencies. It will also be seen by an inspection of Appendix D, report for 1877, and Appendix E, report for 1879, that the proportion of those rejected in many if not in all of the States for intellectual deficiencies in no way corresponds with the relative facilities for popular education which are generally supposed to exist in these States. An inspection of the same forces us also to conclude that no uniform method is adopted in the districts generally, or in any groups of the same, whether limited by States or sections of the country. The consequences of these numerous failures are evil and only evil. The Representative who designates a candidate who fails to be admitted at the entrance examination, or who is turned back before the first year is finished, deprives his district of a representation at the Academy during a part and perhaps the whole of an academic year, and perhaps longer. It is conceivable, even, and it is sometimes true in fact, that several districts in the same State should fail to be represented for a series of years in consequence of the failure of the nominating agent to select a candidate on correct principles and by appropriate tests. To what extent this has actually occurred may be inferred by a comparison of Table C, appendix to report for 1877, with a summary of the number of cadets from the several States actually enrolled in the official registers of the Academy for the corresponding years. A careful study of the graded rolls of the cadets for the last ten years will, we believe, justify the conclusion that a very large proportion of those who attain special eminence have had special advantages for study and intellectual discipline before they entered the Academy. A few, by dint of energy and perseverance, associated with extraordinary natural gifts, have been able to overcome their early disadvantages. A very large number, however, of those who have been discharged after entering would never have suffered the disgrace or misfortune of failure had they been tested by a competitive examination before their district was supplied. The Representative who nominated them would have been spared the mortification of having made an unfortunate appointment. The officers of the Academy would have been spared the odium which, though often unjust, is none the less real, and which is visited

without stint upon an institution which maintains a severe, though necessary, discipline. The district itself would have been spared the double mortification of having been for a time represented unworthily and subsequently for a time not represented at all, during the interval which must necessarily elapse before a vacant place can be filled by a cadet in actual attendance. In view of these facts and considerations, it would seem that those who in fact determine these appointments would gladly avail themselves of a better method. Such a method has been tried by a sufficient number of Representatives and for a sufficient time to justify its immediate and universal adoption. It has been tried in States and sections of the country which are very remote from one another, in those in which the public schools are the most and the least efficient. It is simple, easily understood, and manifestly just and impartial. It commends itself with especial force to the Representatives themselves as relieving them from manifold solicitations, all which they cannot possibly gratify, if they attempt to decide upon the superior claims of several applicants for a personal or political favor, the granting of which can only prove a serious calamity provided his appointee should fail at the entrance examination, or on his subsequent career. The Representative has only to give the nomination to the successful contestant at a fair examination, which shall be open to all applicants within the district of a suitable age and approved character. The examiners should be selected by himself or by any gentleman who he may nominate. The proceedings should be public, and also the results in each study for each candidate. The experiment has been tried in the same district and in some instances by the same Representative to fill a succession of vacancies. So far as we are informed the results have been uniformly satisfactory. In many, not to say in most cases thus far, the cadets nominated by this method have been admitted to the Academy without difficulty and graduated with honor.

It should be distinctly observed that were the method of appointing cadets corrected and perfected as proposed, the Academy would still fail to supply the vacancies that occur in the Army as at present constituted. This at once suggests the question which is regarded by many as of independent interest and prime importance, viz, Is it desirable that the Academy should train all or nearly all the officers of the Regular Army when on its peace establishment? This subject has attracted the attention of the board, and they submit the following as the result of their inquiries and deliberations:

The document appended and marked G shows that for the nine years previous to the late war the average annual casualties in the grade of commissioned officers was $47\frac{1}{3}$. The average of graduates at the Academy for the same years was $42\frac{1}{3}$; the supply being nearly equal to the demand. For the past seven years, on the other hand, the number of casualties has averaged $81\frac{1}{2}$, and the number of graduates has been $49\frac{1}{2}$. The deficiency of nearly three-eighths of the annual appointments has been supplied chiefly from civil life.

Appendix H gives the number of the commissioned officers enrolled in the Army Register of 1878 who have been appointed from the Military Academy, from the ranks, and from civil life.

The objections to this practice in the judgment of the board are very serious. It tends to the introduction of a class of officers who, whatever may be their excellencies, must have a defective knowledge of their profession as a science, and must inevitably result in the formation of cliques, with their attendant jealousies and ill-feeling. It cannot be denied that when the Academy was founded, and especially when it was

placed substantially upon its present footing, it was both intended and expected that it should be a training school for all the officers who should be required on a peace establishment. It was also anticipated that by being a school of instruction for all these officers it would indirectly become a school of instruction for the officers for the largest army which would be required in a time of war. These anticipations have or have not been fulfilled. If they have not, there is something radically defective in the organization or the administration of the Academy itself. If they have, there is no occasion to abandon the original theory as to the method of recruiting the casualties that regularly occur. Every great war must, of course, add valuable officers of every grade to the permanent force of the Army who will have been admirably educated in the school of actual service, whose qualifications no one would question, and whose well-earned honors the country is forward to acknowledge. But the periods for the existence of training schools of this description have, happily for the country, been infrequent and brief, and no one can desire that they should be otherwise. There can be no reason, then, why upon a peace establishment the country should not return to its original theory and continue to supply its skeleton army with officers who are trained at its own Military Academy. The elevation of subordinate officers to higher positions without the preliminary scientific mastery of the studies which are deemed essential to success by all military men cannot be possible or desirable except within very narrow limits. The introduction of any considerable number of young men from civil life into the corps of officers without any special military education and with no previous training to hardship, exposure, and agility in the school of the soldier, and no scientific culture in the school of the officer, must lower the tone of the profession and be fraught with other evils. It will inevitably tend to divide those who should be animated by one spirit into two rival bodies which will be alienated in their feelings as they become competitors for the honors that should be reserved for exceptional services. These jealousies will be likely to be most active at those critical moments which are most important in the history of the nation.

It is obvious, also, that if appointments are made in large numbers from men in civil life, there is reason to fear that they will be made for special political services, or at least on the ground of party services or party allegiance. Should this be the case, it would inevitably follow that political feeling would become more active and more distinctly recognized among the officers, and that promotion and appointments would be solicited and given on the ground of political sympathies. Nothing could be more disastrous to the *esprit de corps* which has characterized our Army hitherto, than the introduction of such divisive influences by which the officers would be arrayed against one another in two opposing factions that would grow and gather strength by the abundant material on which they would feed from within, and by active stimulants from without. It has hitherto been a point of honor and of etiquette with the most of our officers to abstain from the active expression of political feelings or preferences. They have been sometimes severely criticised because they have seemed to be so indifferent to the movements of the great wars of political feeling which periodically agitate the nation's life. Perhaps it will be discovered that that is not one of the least salutary of the traditions of West Point which has trained them to the principle of abstinence and reserve. The evil, if it be one, will rather be exasperated than cured by the introduction into the Army of a considerable number of young men with traditions and sympathies that

are antagonistic to those of an institution which must be strong in its own traditions and prejudices even, if it is to be sturdy in its honor and its courage, its patriotism, and its self-sacrifice.

The small and insufficient number of trained officers that is at present furnished by the Academy will be still further diminished by the recent reduction from *forty* to *ten* of the number of cadets who may be appointed *at large* by the President. The original design of the provision for these appointments *at large* could not have been fully understood by the Congress which ordered that the number should be diminished. It was intended to provide especially for the sons of persons in the military and naval service of the country, and whose tastes and aspirations would naturally lead them to follow the profession of their fathers, and also for the sons of many others whose occupations in life, especially their official employments, prevent them from acquiring a legal or permanent residence in any Congressional district. Such nominations should of necessity be open to free competition, and the classes of persons who are entitled to compete should be distinctly specified. Whether or not this suggestion shall be responded to, the board cannot doubt that whenever the permanent organization of the Army shall have been decided by Congress, provision will be made for the increase of the corps of cadets to such a number as shall be found necessary to supply the casualties which may be expected among the officers. The value of this institution has been too often and too strikingly demonstrated to the country to permit its defects to remain uncorrected or its influence to be limited.

In presenting this report of the duties which they have performed, and the conclusions which they have adopted, the members of the board desire to add that they have been entirely agreed in their warm appreciation of the importance of the Military Academy to our national peace and honor, and also of the excellence of its system of education and training, and of the desirableness that its efficiency should be increased by every practicable method, and its culture be extended to all the officers of the Army which the country should decide ought permanently to be maintained.

In this way, and in this way only, can the country be assured that in any exigency which threatens it from without, or within, it will have at hand the organic force which can promptly and energetically animate and direct whatever numbers of patriotic men the nation shall summon to its service.

All of which is respectfully submitted for the Board of Visitors.
September, 1879.

NOAH PORTER, *President.*

DORMAN B. EATON, *Vice-President.*

HENRY L. ABBOT, *Secretary.*

The Hon. SECRETARY OF WAR.

APPENDIX.

A.

QUARTERMASTER'S OFFICE, UNITED STATES MILITARY ACADEMY, *West Point, N. Y., June 7, 1879*

SIR: I have the honor to submit, for the information of the Committee on Public Buildings, &c., the following information as to the supply of gas at West Point:

The present gas-works were built in 1857—an old stone stable being used for the purpose. An appropriation was made for removal and erection of gas-works in 1866 and 1867 as follows: July 1, 1866, \$6,000; July 1, 1867, \$20,000. Of this amount, \$25,139.61 reverted to the Treasury of the United States under section 5 of the act of July 12, 1870.

The present gas-works are much too small for the proper supply of the post. Two benches, of three retorts each, are required to furnish a necessary supply. If either should become disabled, there would be a difficulty in making a sufficient quantity.

The hydraulic main and connecting pipes were put up with the expectation of running one bench only at a time, and are too contracted to work two benches freely, as are also all the connecting-pipes from the condenser to the washer and purifiers, and the pipes into the gas-holder. The condenser is an old and imperfect one. The washer or scrubber is only one-half the capacity it should be for two benches of retorts. The purifiers are in fair condition. The gas-holder is much too small; it is of 14,000-foot capacity only, and the average daily consumption in winter is 24,000 cubic feet. The main gas-pipe is much too small for the present consumption of gas.

It is estimated, at present rates of labor and material, that new works could be erected for \$25,000.

An appropriation is annually made for gas-pipes, fixtures, lamp-posts, gas-lamps, gasometers, and retorts, and annual repairs, of \$600; and one for gas-coal, oil, candles, and wicking for lighting the Academy, cadet-barracks, mess-hall, hospital, offices, stable, and sidewalks, of \$4,000; but no appropriation for lighting officers' quarters, or for the manufacture of the gas. Cadets are therefore charged their share of the expenses of the manufacture, or 35 cents per cadet each month, while the officers are charged the full cost of the gas, including the cost of the gas-fixtures in the officers' houses.

Very respectfully, your obedient servant,

C. P. MILLER,
First Lieutenant Fourth Artillery, Quartermaster Military Academy, Director of the Gas-Works.

The SECRETARY OF THE BOARD OF VISITORS,
West Point, N. Y.

B.—Statement of amount appropriated for the support of the United States Military Academy for the fiscal year ending June 30, 1879, the amounts disbursed under the direction of the superintendent, including June 10, 1879, and the balances available.

Heads of appropriation.	Appropriated.	Expended.	Balance June 10, 1879.	In Treasury of the United States June 1, 1879.	On deposit with as- sistant treasurer of the United States, New York, June 10, 1879.	Balance.
Current and ordinary expenses.	\$46,481 00	\$30,433 50	\$16,047 50	\$7,000 00	\$9,047 50	.....
Miscellaneous items and incidental expenses	13,370 00	12,493 89	876 11	.....	876 11	.....
Buildings and grounds	25,875 00	16,710 47	9,164 53	4,000 00	5,164 53	.....
	85,726 00	59,637 86	26,088 14	11,000 00	15,088 14	\$26,088 14

REMARKS.—The balance available June 10 will be nearly all expended for liabilities incurred but not paid at date.

R. F. O'BEIRNE,
Captain Twenty-first Infantry, A. D. C., Disbursing Officer..

UNITED STATES MILITARY ACADEMY.

17

C.—The United States Corps Cadets in account with Lieut. S. M. Mills, treasurer United States Military Academy, for the year ending April 30, 1879.

To equipment fund	\$13,048 00	By balance April 30, 1878	\$10,974 13
cadet subsistence department, board	50,561 59	deposits	7,142 88
cadet subsistence department, damages	66 87	equipment fund	9,968 00
cadet quartermaster, store and clothing	52,315 72	cadet quartermaster's department dancing	1,856 96 3 71
cadet quartermaster, shoes	6,544 59	cadet subsistence department	531 70
cadet quartermaster, laundry de- partment	9,294 83	dialectic society	40
barber, shoeblack, &c.	2,172 13	traveling pay	1,326 00
baths	738 79	pay	152,143 50
confectioner	374 00		
policing barracks, &c.	2,680 43		
printing fund	403 73		
dialectic society	88 85		
gas fund	1,193 70		
dentist	1,125 00		
Damages:			
To Military Academy quartermas- ter's department	26 60		
ordnance department	16 79		
library	9 00		
To postage	10 19		
use of dictionary	85 85		
expressage	43 55		
periodicals	75 74		
boat fund	533 25		
engineering text-books	161 50		
hops and German	897 29		
dancing lessons	823 73		
camp entertainments	33 15		
oath of office and allegiance	45 50		
monument subscription	451 36		
yellow-fever subscription	285 00		
photographs	777 93		
cash	4,130 05		
balances paid	22,770 46		
balance April 30, 1879	12,162 11		
	183,947 28		183,947 28

D.

TREASURER'S OFFICE, UNITED STATES MILITARY ACADEMY,

West Point, N. Y., June 17, 1879.

GENERAL: In addition to my statement of funds received and disbursed on behalf of cadets, for the year ending April 30, 1879, submitted to you for the information of the Board of Visitors, I respectfully submit the following, at the request of the Hon. J. H. Blount, member of the board and chairman of the committee on finance, giving a more detailed history of the two principal cadet funds under my charge, and other information asked for by Mr. Blount.

Congress appropriates \$540 per year for the pay of each cadet. Out of this amount the cadets pay all their expenses; and, when not provided for by special appropriation of Congress, buildings for storehouse and quarters for employes have been built out of this pay, as will be explained below.

For convenience in the administration of supplying cadets, the subject has been divided into departments, which departments are kept entirely separate and distinct; this arrangement was especially necessary before my assignment to these duties in September, 1876, when these departments were under the charge of two civilian agents, under appointment of the superintendent of the Military Academy, and paid by cadets for their services. The two funds I will describe are called the cadet quartermaster's fund and the cadet subsistence fund.

The cadet quartermaster's department has the supplying of cadets with all clothing, equipments, shoes, underclothing, text-books, and all other articles prescribed by the superintendent for their use and comfort (not included under the head of subsistence stores), and the repairing of clothing, shoes, &c.

Under the act of Congress approved August 7, 1876, making appropriations for the support of the Military Academy, all supplies of whatever character were to be furnished to cadets at actual cost. To determine the actual cost of such articles when ready for issue to cadets, there must be added to the original or first cost, as per invoice of the articles, the items for transportation and delivery of same at store, storing, preserving, and issuing, cutting, making, keeping record, and, in fine, preparing the

same for issue, including the wages of workmen and clerks employed in the transaction of this business. I was accordingly directed by Major-General Schofield to add to the first cost a percentage to cover these items of incidental expenses, in estimating the actual cost to cadets. It was also decided that a small additional percentage should be charged, for the following reason: that, during a period of some thirty-three years previous to the passage of this act referred to, this department had accumulated a fund of some \$13,000, besides a valuable storehouse and other buildings occupied as quarters by employes of the department. This percentage was intended to preserve and keep in order this property for which cadets preceding had paid, and of which cadets at present were having all the benefit, so that the capital now possessed by the corps of cadets might not be diminished, but might be kept intact for the perpetual benefit of cadets.

The following reasons may be mentioned for the necessity of having a certain amount of money on hand, viz: to buy a stock of goods in the fall for winter use, and to keep on hand at all times the necessary stores for daily issue; these being purchased at wholesale for cash, great saving is thereby effected for the cadets. Again, cadets on entering the Military Academy are not required to make a deposit, and occasionally there are a few admitted who make no deposit at all. This department has to incur the expense of their original outfit and keep them supplied with necessary clothing, text-books, &c., until such time, frequently two years, as their pay liquidates their indebtedness. On one of these cadets leaving the Academy by dismissal or otherwise during this time, this department has to bear the loss of the amount due from him.

The following statement shows the amount of business done by this department for the period of sixteen months ending April 30, 1879:

January 1, 1878, total amount of value of stock on hand, bills receivable, and balance at treasurer's office was.....	\$35,843 49
May 1, 1879, total amount of same was.....	37,312 80
Showing an increase for the 16 months of.....	1,469 31
Total expenses for this period.....	6,122 85
Showing the gross charges to have been.....	7,592 16
The receipts for the 16 months were.....	78,142 14

From the above we find that the gross charges were about 10 per cent. upon first cost, and the net charges for use of capital, buildings, &c., about 2 per cent., an amount sufficient perhaps to meet any unusual outlay of the department for the benefit of cadets, to provide for any necessary repairs to their property and make good the losses from discharge of cadets who are in debt.

The cadet subsistence department has the purchasing, transporting, preparing, issuing, and serving all provisions and other articles and stores supplied cadets at their mess. This also includes the necessary expenses of labor, &c., in maintaining a garden for cadets; for the providing for and care of seven milch cows, in addition to the milk which is purchased; also, necessary improvements to cadets' mess-hall for the better care of provisions, &c., belonging to cadets, such as a refrigerator, improved cooking utensils, &c.; and, in the past year, the building of two sets of quarters, for which no other means were provided, at an expense of some \$2,400, for the quartering of employes of the department.

The cost of subsisting cadets is determined as follows: At the end of every two months, all the expenses of whatever nature incurred by me in this department for the previous two months are laid before a board of audit, consisting of three officers, the commandant of cadets being the senior, appointed by the superintendent. This board examines all the accounts and determines the total cost of subsisting the cadets for the two months, including those sick in hospital. This amount is divided *pro rata* among the cadets, and gives the actual cost per cadet for his subsistence.

For the two months of March and April, 1879, selecting any two at random, this amount was \$29.42, cost per cadet for two months of sixty-one days.

To provide, however, a fund out of which any unusual expense, not pertaining to any particular two months, but which is to last over a period of months or years, can be made, it has been usual for many years for this board of audit to assess each cadet something more (when the actual cost is not excessive) than the actual cost, to meet this expense; and again at other times when the actual cost was large, relatively, the amount assessed has been less than the actual cost.

In the two months taken above as an example, each cadet was assessed \$30.

The average actual cost of board for two months during the last year was \$29.14.

The average amount assessed each cadet for same during this period was \$30.41.

The report of this board of audit is submitted to the superintendent, and, if approved by him, is my authority as treasurer for charging each cadet the amount assessed.

When I took charge of this department in 1876 there was a surplus fund, made as

described above, of some \$2,000. It has varied from time to time since then, being now \$1,050.10. It was from this fund, by direction of Major-General Schofield, that I built the two sets of quarters referred to, the expense of which has not been appreciable in the cost of board for any two months, and must be regarded as a part of the cost of subsisting the cadets for a term of years, the maintaining and keeping of their cooks, waiters, &c., being as much a part of the cost of subsistence as the first cost of the provisions consumed.

The following is a copy of the account of a cadet for any two months. I take the account of Cadet F. V. Abbot for the months of March and April, 1879:

CR.

By balance in his favor from last settlement	\$122 52
Deposit	
Credit at cadet quartermaster's department	
Pay from March 1 to April 30, 1879, inclusive	90 00
	212 52

DR.

To equipment fund	\$8 00
Cadet subsistence department:	
Board	30 00
Damages	48
Cadet quartermaster's department	10 29
Cadet laundry (washing and mending)	5 47
Barber and shoeblack, &c	50
Baths	54
Confectioner	
Policing barracks	1 47
Printing fund	24
Dialectic society	
Gas-fund	70
Dentist	
Use of dictionary	05
Damages:	
Quartermaster's department	
Ordnance	
Library	
Postage	
Expressage	
Periodicals	
Cash	
	57 74
Balance to next settlement	154 78

The accumulated savings of cadets, their equipment fund, which is held in trust for them until they graduate, and other balances in my hands not required for current expenses, I have, by direction of the superintendent, invested in United States bonds, and the interest on this investment serves to pay some portion of the incidental expenses not otherwise provided for.

I am, very respectfully, your obedient servant,

S. M. MILLS,
First Lieutenant Fifth Artillery, U. S. A.,
Treasurer, Quartermaster, and Commissary of Cadets.

General H. L. ABBOT, U. S. A.,
Secretary Board of Visitors.

Approved.

J. M. SCHOFIELD,
Major-General, Superintendent.

E.—Table showing States from which were appointed candidates rejected by the academic board in 1877 and 1878.

	1877.	1878.		1877.	1878.
Alabama:			New Jersey:		
Reported for examination	3	1	Reported for examination	6	2
Rejected	1	1	Rejected	2	.....
Arkansas:			New York:		
Reported for examination	3	3	Reported for examination	16	8
Rejected	3	1	Rejected	4	1
California:			North Carolina:		
Reported for examination	3	3	Reported for examination	8	6
Rejected	1	.....	Rejected	6	4
Colorado:			Ohio:		
Reported for examination	.....	.....	Reported for examination	10	8
Rejected	.....	.....	Rejected	5	3
Connecticut:			Oregon:		
Reported for examination	.....	1	Reported for examination	1	1
Rejected	.....	.....	Rejected	1	.....
Delaware:			Pennsylvania:		
Reported for examination	.....	.....	Reported for examination	9	10
Rejected	.....	.....	Rejected	4	3
Florida:			Rhode Island:		
Reported for examination	2	1	Reported for examination	.....	.....
Rejected	.....	.....	Rejected	.....	.....
Georgia:			South Carolina:		
Reported for examination	5	2	Reported for examination	1	1
Rejected	1	1	Rejected	1	.....
Illinois:			Tennessee:		
Reported for examination	13	14	Reported for examination	7	6
Rejected	9	4	Rejected	4	1
Indiana:			Texas:		
Reported for examination	8	5	Reported for examination	3	5
Rejected	2	3	Rejected	2	2
Iowa:			Vermont:		
Reported for examination	6	4	Reported for examination	1	.....
Rejected	3	.....	Rejected	.....	.....
Kansas:			Virginia:		
Reported for examination	3	.....	Reported for examination	7	6
Rejected	1	.....	Rejected	5	5
Kentucky:			West Virginia:		
Reported for examination	5	7	Reported for examination	1	.....
Rejected	4	1	Rejected	.....	.....
Louisiana:			Wisconsin:		
Reported for examination	2	2	Reported for examination	3	5
Rejected	2	2	Rejected	2	2
Maine:			Arizona:		
Reported for examination	4	2	Reported for examination	1	1
Rejected	2	.....	Rejected	1	.....
Maryland:			Dakota:		
Reported for examination	7	8	Reported for examination	.....	.....
Rejected	4	3	Rejected	.....	.....
Massachusetts:			District of Columbia:		
Reported for examination	4	2	Reported for examination	1	.....
Rejected	1	.....	Rejected	.....	.....
Michigan:			Idaho:		
Reported for examination	6	3	Reported for examination	1	.....
Rejected	2	1	Rejected	.....	.....
Minnesota:			Montana:		
Reported for examination	1	1	Reported for examination	1	1
Rejected	.....	.....	Rejected	1	1
Mississippi:			New Mexico:		
Reported for examination	6	4	Reported for examination	1	.....
Rejected	4	.....	Rejected	.....	.....
Missouri:			Utah:		
Reported for examination	7	8	Reported for examination	.....	1
Rejected	3	3	Rejected	.....	.....
Nebraska:			Washington:		
Reported for examination	.....	1	Reported for examination	2	.....
Rejected	.....	.....	Rejected	1	.....
Nevada:			Wyoming:		
Reported for examination	.....	.....	Reported for examination	2	2
Rejected	.....	.....	Rejected	1	2
New Hampshire:			At large:		
Reported for examination	1	1	Reported for examination	15	10
Rejected	.....	.....	Rejected	7	.....

FRANK MICHLER,

First Lieutenant Fifth Cavalry, Adjutant.

ADJUTANT'S OFFICE, UNITED STATES MILITARY ACADEMY,

West Point, N. Y., June 7, 1879.

F.—Statement showing the number of candidates appointed to the United States Military Academy, number rejected, and number admitted, in 1877 and 1878.

Years.	Number appointed.	Rejected by academic board.	For want of qualification in—							Rejected by medical board.	Appointment canceled.	Declined appointment.	Failed to report.	Admitted.
			Reading.	Writing.	Orthography.	Arithmetic.	Grammar.	Geography.	History.					
1877.....	199	87	4	43	43	57	35	32	26	3	1	.....	12	96
1878.....	151	42	1	23	23	25	26	20	21	1	2	.....	4	102

FRANK MICHLER,

First Lieutenant Fifth Cavalry, Adjutant.

ADJUTANT'S OFFICE, UNITED STATES MILITARY ACADEMY,

West Point, N. Y., June 7, 1879.

G.—Aggregate of casualties among the commissioned officers of the United States Army for the years 1853–1861, and for the years 1871–1878.

Date of Army Register consulted.	Number of United States Army.		Casualties.					Aggregate of casualties.
	Aggregate.	Commissioned officers.	Number of					
			Resigned.	Died.	Dismissed.	Cashiered or dropped.		
1853.....	10,248	964	13	16	2	.....	31
1854.....	10,329	952	27	43	.....	1	73
1855.....	10,333	948	30	25	.....	1	56
1856.....	12,698	1,040	36	22	3	1	62	
1857.....	12,688	1,060	47	15	6	3	71	
1858.....	12,923	1,085	22	19	.....	1	42
1859.....	12,943	1,084	7	24	1	.....	32
1860.....	12,931	1,083	11	15	1	1	28	
1861.....	13,024	1,117	13	16	1	1	31	
		9,333					426	
1872.....	32,512	2,263	23	48	8	4	83	
1873.....	32,554	2,253	41	31	6	6	84	
1874.....	32,602	2,252	48	46	6	6	106	
1875.....	27,525	2,204	21	31	6	4	62	
1876.....	27,489	2,168	22	43	11	4	80	
1877.....	27,472	2,151	25	55	6	.....	86
1878.....	27,476	2,157	20	33	13	1	67	
		15,448					568	

REMARKS.—For nine years, 1853–1861, average number of commissioned officers, 1,037; average number of casualties, 47; casualties, 4½ per cent. of commissioned officers per year. During the years 1862–1871, inclusive, the casualties are greatly in excess on account of war and its after effects. For seven years, 1872–1878, average number of commissioned officers, 2,207; average number of casualties, 81; casualties per year, 3⅙ per cent of commissioned officers.

Official:

FRANK MICHLER,

First Lieutenant Fifth Cavalry, Adjutant Military Academy.

HEADQUARTERS UNITED STATES MILITARY ACADEMY,

West Point, N. Y., June 10, 1879.

Table compiled from the Army Register of 1878 showing what number of the present commissioned officers have been appointed from Military Academy, from the ranks, or from civil life.

Corps or department.	Officers appointed from—		
	Military Academy.	Army.	Civil life.
General officers.....	10		1
Adjutant-General's Department.....	15		2
Inspector-General's Department.....	6		1
Military Justice.....			9
Signal Service.....			1
Quartermaster's Department.....	20	2	42
Subsistence Department.....	19		7
Medical Department.....			192
Pay Department.....	11		44
Corps of Engineers.....	109		
Ordnance Department.....	49		15
Chaplains.....			30
Cavalry.....	190	47	198
Artillery.....	180	17	86
Infantry.....	206	103	566
Total.....	815	169	1,194

REMARKS.—Considering the last three arms of the service only, in the cavalry, artillery, and infantry, there are 576 from Military Academy, 167 from Army, 850 from civil life.

Official:

FRANK MICHLER,

First Lieutenant Fifth Cavalry, Adjutant.

HEADQUARTERS UNITED STATES MILITARY ACADEMY,
West Point, N. Y., June 10, 1879.